



Výskumný ústav dopravný

# Environmental Report

Strategic Plan for Development of  
Transport Infrastructure in Slovak  
Republic by 2020

Strategy for Development of Public  
Passenger and Non-motorised  
Transport by 2020



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*Humanity is but a part of the fabric of life — dependent on the whole fabric  
that the unknown evolutionary destinies of other life forms are to be respected,  
for our very existence.*

*(Gary Snyder – Four Changes, 1969  
and act as gentle steward of the earth's community of being.)*



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## LIST OF ABBREVIATIONS

AGC	European Agreement on Main International Railway Lines
AGN	European Agreement on Main Inland Waterways of International Importance
AGR	European Agreement on Main International Traffic Arteries
AGTC	European Agreement on Important International Combined Transport Lines and Related Installations
BA-ZA-KE	Northern west - east corridor
BA-ZV-LC-KE	Central west - east corridor
BA-DS-NZ-LC-KE	Southern west - east corridor
BPEJ	Pedo - ecological units
BBSK	Banská Bystrica self-government region
BECEP	Organisation dealing with road traffic safety
BSK	Bratislava self-governing region
CADSES	Central, Adriatic, Danubian and Southeastern Space
CR	Czech Republic
EO	Environmental objective
EEA	European Environmental Agency Copenhagen
EEC	European Economical Community
EIA	Environmental Impact Assessment
EC	European Commission
ESDP	European Spatial Development Perspective
ESPON	European Spatial Planning Observation Network
EU	European Union
ERDF	European Regional Development Fund
ERTMS	European Rail Traffic Management System
ETCS L2	European Train Control System Level 2
EUROSTAT	Statistical office of the European Union
FUA	Functional Urban Area
D1	D1 Motorway (e.g.)
D	Transport - gravitation axis
MI	Motorway interchange
DRC	Motorways and expressways
TI	Transport Infrastructure
TEA	Report on Assessment of Strategic Document: New project of construction of motorways and expressways - Appendix 1, Annex 2 Traffic - engineering analysis
TA	Traffic accident
D-P-S-I-R	Chain of transport and environment relations according to EEA Copenhagen: D-driving force, P-pressure, S-state, I-impact, R-response
GIS	Geographical information system
GNUSES	General Plan of Supraregional Territorial System of Ecological Stability
GSM R	Global system for mobile communications - railway applications
GVD	Train Traffic Diagram
CHA	Protected site
CHKO	Protected landscape area

CHLÚ	Protected deposit area
CHVU	Special protection area (SPA)
IAD	Individual car transport
ITS	Integrated Transport System
IntDS	Intelligent Transport System
intrav.	Built-up area
IKD	Integrated transport system of rail passenger transport
IROP	Integrated Regional Operational Programme
JASPERS	Joint Assistance in Supporting Projects in European Regions
CF	Cohesion Fund
KNL	black spot
KSK	Košice self-governing region
EI	Expressway interchange
KURS 2001, 2011	Slovak Spatial Development Perspective 2001, 2011
LPF	Forest Soil Fund
MaB	Man and Biosphere
MDPT SR	Ministry of Transport, Posts and Telecommunications of the Slovak Republic
MDVRR SR	Ministry of Transport, Construction and Regional Development of the Slovak Republic
MEGA	Metropolitan Growth Areas
MF SR	Ministry of Finance of the Slovak Republic
MHD	Mass urban transport
MCHU	Small-scale protected area
mill.	million
MPŽPRR SR	Ministry of Agriculture, Environment and Regional Development of the Slovak Republic
MR	Hungary
MŽP SR	Ministry of Environment of the Slovak Republic
NAPANT	Národný park Nízke Tatry National Park
NAP GPP	National action plan for green procurement in SR for 2011 to 2015
NDS a.s.	National Motorway Company (Národná diaľničná spoločnosť, a. s.)
NDIC	National traffic and information centre
NCS	National Strategy of Development of Cycling Transport and Cycle Touring in the Slovak Republic
NP	National Park
NPP	National nature monument
NPVDRC	New Project of motorways and expressways New Project of motorways and expressways - Supplement no. 1
NPVDRC 1	New Project of motorways and expressways New Project of motorways and expressways - Supplement no. 1
NPR	National nature reserve
NR SR	Národná rada Slovenskej republiky (National Council of the Slovak Republic)
NRBc	Supraregional bio-centre
NRBk	Supraregional bio-corridor
OECD	Organisation for Economic Co-operation and Development
OP	Protection zone
OP17	Measure 17

OPII	Operational Programme Integrated Infrastructure
inhab.	inhabitant
os.	person
osob.aut.	passenger car
PD	Project documents
PHO	Sanitary protection zone
PlaNet CenSE	Network of national landscape authorities and experts established as consequence of VISION PLANET project ( <i>Planners Network for Central and South East Europe</i> )
PM <sub>10</sub>	Suspended particulate matters with diameter of 10 micrometer
PKO SR	Polycentric concept of settlement as the instrument ensuring the functional complexity at regional and local level (research project related to KURS 2001)
PP	Nature monument
PPF	Agricultural land fund
PR	Nature reserve
PR	Poland
PSK	Prešov self-governing region
PU SSR	Project of urbanisation of the Slovak Socialist Republic
R1	expressway R1 (e.g.)
R	Settlement development axis
RBc	Regional bio-centre
RBk	Regional bio-corridor
r.km	River kilometre
PPP	Public-Private Partnership
RIS	River Information Services
MA	Managing Authority
AADT	Annual average daily traffic [vehicles/h]
RR	Austria
RVHP	Council of Mutual Economic Assistance
RWY	Runway
SAŽP	Slovenská agentúra životného prostredia ( <i>Slovak Environmental Agency</i> )
SD	Strategic Document
SO	Strategic objective of public passenger transport or its priority
SEA	Strategic Environmental Assessment
SHMÚ	Slovak Hydrometeorological Institute
Skalité/Svrčinovec-ZA-MT-ZV-Šahy	Western north-south corridor
SKCHVU	Special protection area (SPA)
SKUEV	Special Area of Conservation (SAC)
ER	Environmental Report
SPRDI SR 2020	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020
SRVOND SR 2020	Strategy for Development of Public Passenger and Non-motorised Transport by 2020
SR	Slovak Republic
SSC	Slovak Road Administration
Svidník-PO-KE-Milhošť	Eastern north-south corridor
ŠGÚDŠ	State Geological Institute of Dionýz Štúr
SF	Structural Funds

TEN-T	Trans-European Transport Network
TERM	Transport and Environment Reporting Mechanism
THÚ	Technical - hygienic maintenance
TINA	Transport Infrastructure Needs Assessment
TIOP	Terminal of integrated passenger transport
TIP	Intermodal Transport Terminal
thous.	thousand
TNSK	Trenčín self-governing region
Trstená-DK-RK-BB-ZV-Šahy	Central north - south corridor
TTSK	Trnava self-governing region
TWY	Taxiway
UA	Ukraine
ÚEV	Special Area of Conservation (SAC)
UGCD SR	General plan of the road transport in the Slovak Republic
ÚPN	Land-use Plan
TS	Territorial sector
UV SR	Resolution of Government of the Slovak Republic
TSES	Territorial system of ecological stability
VD	Vision
VOD	Public passenger transport (suburban bus and railway passenger transport, mass urban transport)
VOND	Public passenger and non-motorised transport (suburban bus and railway passenger transport, mass urban transport, cycling)
VÚC	Self-governing region (Higher Territorial Unit)
VÚD	Výskumný ústav dopravný, a. s. (Transport Research Institute, Inc.)
VÚVH	Water Research Institute
ZAKOS	Basic communication system
ŽKV	Railway rolling stock
ŽSR	Železnice Slovenskej republiky (Railways of the Slovak Republic)
ŽSK	Žilina self-governing region

### Explanation of terms

For the purpose of this report the "SEA (Strategic Environmental Assessment) process" shall mean a process of assessment of strategic documents impacts performed in accordance with the Part Two of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations.

For the purpose of this report the "EIA (Environmental Impact Assessment) process" shall mean a process of assessment of proposed activities performed in accordance with the Part Three of the Act No. 24/2006 Coll. as amended by later regulations.

For the purpose of this report the "Construction Ac" shall mean Act No. 50/1976 Coll. on land-use planning and building regulation, as amended by later regulations.

For the purpose of this report the "Water Act" shall mean the Act No. 364/2006 Coll. on waters and on amendments of the Act No. 372/1990 Coll. on offences in the wording of later regulations (Water Act), as amended by later regulations.

For the purpose of this report the "EIA Act" shall mean the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations.

For the purpose of this report the "Act on nature and landscape protection" shall mean the Act No. 543/2002 Coll. on nature and landscape protection, as amended by later regulations.

## INTRODUCTION

The ongoing process of strategic environmental assessment (hereinafter referred to as the "SEA" process) relates to two contently and formally interconnected strategic documents (hereinafter referred to as the "SD"), i.e. the Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, Phase I (hereinafter referred to as the "SPRDI SR 2020") and the Strategic Plan for Development of Public Passenger and Non-motorised Transport in Slovak Republic by 2020 (hereinafter referred to as the "SRVOND SR 2020"). The subject-matter of the assessment of SD impacts on environment within submitted Environmental Report (hereinafter referred to as the "ER") shall be the transport infrastructure in SR, i. e. the infrastructure of the railway, road, air, inland waterway, intermodal, as well as the public passenger and non-motorised transport described in detail in SRVOND SR 2020.

The arrangement of ER takes over the content elements of a started SEA process. In addition to the infrastructure of the road, railway, air, inland waterway and intermodal transport, the particular ER chapters deal also with problems of the public passenger and non-motorised transport. Thus shall be achieved the full-scale assessment of two strategic documents (SPRDI SR 2020 and SRVOND SR 2020) within one ER under the abovementioned process of impact assessment. The essential reason for common assessment and approval within the SEA process of two strategic documents is to address cumulative and synergic impacts of the transport infrastructure and public passenger and non-motorised transport on the environment.

### **SPRDI SR 2020**

SPRDI SR 2020 represents a basic long-term strategic document in the field of transport infrastructure development. Assessed document in Phase I. may be considered as its mid-term stage in the field of transport infrastructure development by 2020.

The concept of the proposal of SPRDI SR 2020 is based on sector analyses and prognoses, main key disparities and potential development factors identified at the macroeconomic national level, as well as those that are specific for the transport sector. Investments by the year 2020 should be used for completion of key transport interconnection of the core settlement areas in the SR territory and abroad at the adequate quality level, for gradual supplementing of missing transport connections at the national and trans-regional levels stressing the sustainable, ecological and more cost-effective transport infrastructure.

Interferences with construction of the new infrastructure and upgrading of the existing infrastructure should not only solve pressing issues of transport network, but also contribute to economic growth and job creation.

Within this aim, SPRDI SR 2020 does not deal with other partial issues of the transport policy, as e.g. the greening of transport, development of non-motorised transport modes (cycling in particular), harmonisation of conditions on the transport market, traffic safety and so on. Such topics are solved at a higher level in the Transport policy of the Slovak Republic by 2015 and they elaborated in detail within separate documents.

### **SRVOND SR 2020**

The aim of presented strategy is to describe the objective and actual situation in the field of public passenger and non-motorised transport, to identify reasons for such situation and to specify measures necessary for development of mentioned transport modes. The strategy provides a sight at the public passenger and non-motorised transport from local and regional point of view in order to ensure the sustainable urban and regional mobility. In the context of regional relations the document deals with the Slovakia divided into four functional regions. The subject matter of this document includes cities with more than 70 thousands inhabitants ((Bratislava, Nitra, Žilina, Banská Bystrica, Košice a Prešov) and they represent the natural catchment centres of abovementioned regions.

The long-distance transport is the subject matter of separate sectoral analyses of respective transport modes. The document also deals with issues of the non-motorised transport with potential to have an important effect on urban and regional mobility as well as on the usage of public passenger transport, with which it forms (from the complex aspect of support of the more effective mobility) an integral unit.

### *Variety of Assessment*

The process of strategic planning of superior transport infrastructure in Slovakia (international and national importance) has a long-term character. After the year 1989, its basis is made up of the studies and projects developed for the transport sector; they deal with the visions and scenarios for development of transport in the context of new social, economic and environmental aspects. Within a pre-accession period, in addition to the Slovak and Czech design institutes and authorities, also the subjects from previous EU states participated in the process of transport strategy establishment. (as an example, is possible to mention the first analytical, variant and strategic document on the development of the motorway network in Slovakia developed by the company DORSCH Consult Munich) in 1994 to 1995. Analogically - in most cases with a variant approach to the development scenario solving - the formulation of visions proceeded together with preparation of development strategies for all transport modes of the Slovak Republic. Subsequently, the results of variant studies have been incorporated into official versions of particular transport modes of the Slovak Republic, guaranteed by the transport ministry.

From the date of Slovakia accession to the EU in 2004, the EU legislation and normative procedures are implemented in the process of strategic forming its transport system including those related to the environment. The SPRDI SR 2020, Phase I. already involves implemented variant procedures, schemes and decisions. Therefore, the subject matter of environmental assessment of the SPRDI SR 2020 will be an implementation variant (status with the implementation of measures and through them also of projects planned within the strategic document) and a zero variant (status in case that planned measures and projects will not be implemented). Prepared Phase II of the SPRDI SR 2020, which will be of a long-term character and involve the complex transport model of all Slovak transport modes, introduces an exact revision element of the current procedure into the process, thereby enabling again a variant view at the strategic progress of the complex transport system development in the Slovak Republic.

### *Legislative framework and procedure of strategic environmental assessment*

Within the meaning of the Act No 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations (hereinafter referred to as the "Act"), the SPRDI SR 2020 represents a strategic document having an impact exceeding the Slovak Republic borders. The assessment procedure of strategic documents and strategic documents with cross-border impact is regulated by the Part Four of the Act. The Act takes account of the requirement of Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (so-called SEA Directive).

The objective of the SEA process of presented documents shall be to integrate into the decision-making process at the Slovakia government level the results of the assessment of impacts on the environment and the human life, based on the results of an assessment report and taking the authorities and organisations concerned and public opinions into account.

The Strategic Environmental Assessment procedure considered the requirements of abovementioned documents at the national and regional level. The methodology of the use of TERM indicators (developed by the EEA Copenhagen with the aim to ensure the efficiency of integration strategies in the framework of transport and environment) and the methodology of SEA for Structural Funds „Handbook on SEA for Cohesion Policy 2007-2013“ (2006) have been taken into account within the procedure.

In compliance with specified requirements for the Strategic Environmental Assessment, the process of the Strategic Environmental Assessment itself has started parallel with preparation of the proposal of assessed SD. Following activities were implemented within the preparatory phase:

- collection of source materials necessary for the assessment of the current environmental and health conditions and of the critical locations related to the SD main objectives,
- compilation of the list and review of objectives included in other strategic documents at national and international levels that are related to SD objectives,
- definition of areas, environmental objectives and indicators relevant for consecutive assessment of SD objectives and priorities.

During the preparatory phase of the SEA process, an ongoing communication with SD authors was in a progress, concerning the need to include environmental objectives in processing of the proposal of



specified strategic documents. In this way also the methodology and the scope of the assessment of both documents have been created and at the same time the importance of impacts has been estimated.

The process of familiarisation of public and other engaged subjects with SD has started with the preparation and publishing of the Communication of strategic document in accordance with the Articles 7 and 17 of the Act. The Communication has been published on 8 July 2013 at the website of MŽP SR [www.enviroportal.sk](http://www.enviroportal.sk), at the website of MDVRR SR [www.midop.sk](http://www.midop.sk) and at the same time, the MDVRR SR has published an information about the Communication also through the mass media on 9 July 2013 in a journal "Hospodárske noviny". Parallel with publishing of the document the MŽP SR informed the public that opinions to the Communications may be submitted by 23 July 2013. By the specified date, 11 opinions and after this date 6 more opinions from stakeholders have been delivered to the MDVRR SR.

Afterwards the phase of assessment scope determination followed and within it all comments of competent authorities and public, which have been delivered to the Communication, have been evaluated. On the basis of such evaluation, the MDVRR SR in cooperation with the MŽP SR prepared the proposal of the Scope of the assessment.

The proposal of the Scope of the assessment has been consulted during the period from 7 August 2013 to 15 August 2013, with participation of the contracting entity the MDVRR SR, representatives of the MŽP SR, competent authorities and representatives of the SEA assessors. The Scope of assessment has been published by the MDVRR SR in cooperation with the MŽP SR on 15 August 2013. It has been published at websites of MŽP SR and MDVRR SR together with the notice that the public may express its opinions to the Scope of the assessment by 29 August 2013. At the same time the information have been published in the journal "Hospodárske noviny" on 19 August 2013.

Afterwards the elaboration of the Environmental Report followed and it included according to the structure required by the Annex 4 to the Act in particular:

- Assessment of the present state of relevant areas, their trends and development in case that the SD objectives and priorities would not be implemented;
- Assessment of SD objectives in relation to other relevant strategic documents at national and international levels;
- Assessment of significant SD impacts on the environment, including the health;
- Assessment of cumulative SD impacts;
- Assessment of cross-border impacts;
- Proposal of measures for impacts mitigation;
- Plan of monitoring of SD implementation.

Within particular thematic areas specific requirements of the assessment scope have been worked out as well. The way of their taking into account is transparently specified in the Part XI of the report.

Tab. 1 Factual and time schedule of preparation and approval in the SEA process of SPRDI SR and SRVOND SR 2020

Activity	Date
Session of Horizontal Working Group for the preparation of SPRDI SR 2020	19., 29. 04.2013
	10., 15., 27., 28. 05.2013
Submission of the 1 <sup>st</sup> proposal of SD	20.06.2013
Elaboration of the Notification on SD	18.06.2013
Consultations regarding the significance and scope of impacts (screening)	09.06.2013 - 22.07.2013
Publishing the notification on strategic document	08.07.2013, 09.07.2013
Intermediate information of the public about the SD proposal	from 09.06.2013
Submission of the assessed 2 <sup>nd</sup> proposal of SPRDI SR 2020	30.07.2013
Submission of the assessed 2 <sup>nd</sup> proposal of SRVOND SR 2020	August 2013
Determination of the SD assessment scope	15.08.2013
Elaboration of the Environmental Report on SD	10.12.2013
Submission and publication of the Environmental Report and the proposal of SD	February 2014
Public negotiation of the assessment report and elaboration of the minutes	March 2014
Cross-border assessment	March - April 2014
Elaboration of the expertise	April 2014
Final opinion resulting from the assessment of strategic document	April 2014
Elaboration of the SD final text with incorporated comments	May 2014
Submission of the SD for the proceeding of the Government of the Slovak Republic	May 2014

## I. BASIC INFORMATION ON CONTRACTING ENTITY

### 1. DESIGNATION

Ministry of Transport, Construction and Regional Development of the Slovak Republic (hereinafter referred to as the „MDVRR SR“)

### 2. RESIDENCE

Námestie slobody 6

810 05 Bratislava

Slovenská republika

### 3. AUTHORISED REPRESENTATIVE OF CONTRACTING ENTITY

JUDr. Denisa Žiláková

General Director of the Operational Programme Transport Section

Námestie slobody 6, 810 05 Bratislava

phone: +421 2 5949 4645

e-mail: denisa.zilakova@mindop.sk

### 4. CONTACT PERSON AND PLACE OF CONSULTATIONS

Ing. Róbert Felcan

Director of Department of Transport Infrastructure Programming and Monitoring

Ministry of Transport, Construction and Regional Development of the Slovak Republic

Námestie slobody 6, 810 05 Bratislava

phone.: +421 2 5949 4449

e-mail: robert.felcan@mindop.sk

#### *Place and time of consultation*

Ministry of Transport, Construction and Regional Development of the Slovak Republic, Námestie slobody 6, Bratislava

Throughout the process of the strategic document assessment it is possible to consult the matter of assessed strategic document of nationwide coverage according to the Article 63 (1) of the Act No 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations (hereinafter referred to as the "Act"), except for the consultations particularly referred to in the Act, i. e. the public proceeding and the submission of written opinions to the report.

Time of consultations shall be specified by abovementioned contact persons and in accordance with the requirement and arrangement of subjects that express an interest of consultations.

## **II. BASIC INFORMATION ON ASSESSED STRATEGIC DOCUMENTS**

### **1. TITLE**

Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, Phase I. (SPRDI SR 2020, Phase I.), version from July 2013 after the interdepartmental commenting

Strategy for Development of Public Passenger and Non-motorised transport by 2020 (SRVOND SR 2020), Proposal v1.14 November 2013

### **2. TERRITORY**

SPRDI SR 2020 shall be a strategic document with the cross-border impact, which includes the entire territory of the Slovak Republic.

SRVOND SR 2020 shall be a strategic document with the impact on the entire territory of the Slovak Republic.

### **3. MUNICIPALITIES CONCERNED**

Affected municipalities shall be particular municipalities in 79 districts and 8 regions earmarked on the territory of the Slovak Republic.

### **4. COMPETENT AUTHORITIES**

Government Office of the Slovak Republic

Ministry of Economy of the Slovak Republic

Ministry of Finance of the Slovak Republic

Ministry of Education, Science, Research and Sport of the Slovak Republic

Ministry of Culture of the Slovak Republic

Ministry of Agriculture and Rural Development of the Slovak Republic

Ministry of Defence of the Slovak Republic

Ministry of Foreign and European Affairs of the Slovak Republic

Ministry of Interior of the Slovak Republic

Ministry of Health of the Slovak Republic

Ministry of Environment of the Slovak Republic

Ministry of Labour, Social Affairs and Family of the Slovak Republic

Bratislava self-governing region

Trnava self-governing region

Trenčín self-governing region

Banská Bystrica self-government region

Nitra self-governing region

Žilina self-governing region

Prešov self-governing region

Košice self-governing region

Association of Cities and Municipalities of Slovakia

Union of Towns and Cities of Slovakia

Union of Employers of Transport, Posts & Telecommunications of the SR

Association of Trade Unions of Transport, Posts & Telecommunications

Slovak Chambers of Commerce and Industry

Slovak Chamber of Commerce and Industry

## **5. APPROVING AUTHORITY**

At the national level the proposal of SD will be approved by the Slovak Republic government.

## **6. CONTENTS AND MAIN OBJECTIVES OF ASSESSED STRATEGIC DOCUMENTS AND THEIR RELATIONS TO OTHER STRATEGIC DOCUMENTS**

The preparation of SPRDI SR 2020 has been one of the most important conditions defined by the European Commission (hereinafter referred to as the "EC") for the Transport Ministry; it is an apparent part of the proposals of regulations for programming period 2014 - 2020, which has to be met with regard to the access to EU funds. SPRDI 2020 and SRVOND SR 2020 represent strategic documents specifying the basic medium and long term objectives in the field of transport infrastructure development, defining the development priorities and identifying the measures and resource for their achievement. Drafts of abovementioned documents have been elaborated in July and August 2013. As the separate nationwide strategic document with an impact extending the state borders, the SPRDI SR 2020 has to meet the requirement of strategic and environmental assessment under the Act NO 24/2006 Coll.

### **SPRDI SR 2020**

SPRDI SR 2020 shall be a basic mid-term strategic document of the Slovak Republic in the field of transport infrastructure development by 2020. Assessed document represents an output of the Phase I of the creation of the SR complex transport sectoral strategy. It follows and works out in detail the currently valid strategies and principles for the transport development, in particular the Transport Policy of the Slovak Republic by 2015 and the Strategy for development of the transport in the Slovak Republic by 2020. Development concepts of particular transport modes, the so-called schedule of preparation and construction of the infrastructure; such concepts that are in generally developed by the MDVRR SR and infrastructure operators for the period of the 3 nearest following years, will follow the contents identified in an assessed document.

The document is divided into two separate parts - analytic and strategic. The analytic document part represents the output of analyses of individual transport modes worked out by the technical working groups.

The strategic document part includes the proposal of particular visions, objectives, projects and project charters and definition of the recommendation for assurance of their financial coverage. In this context, it must be accentuated that the fulfilment of particular objectives will be ensured through multi-resource financing (EU Funds 2014 – 2020, State Budget, „Connecting Europe" Fund, innovative financial instruments, credits, public-private partnerships, own sources of an applicant).

For the programming period 2014 - 2020, the EC prepared 11 thematic objectives that are common for the cohesion policy, rural development and the maritime and fishing policies. The objectives ensure that the interventions within the policies lead to the fulfilment of common objectives. Such thematic objectives shall convert the strategy of the Europe 2020 to the operation objectives supported just through the funds of Common strategic framework.

The implementation of measures specified in the assessed document represents the contribution to the achievement of following strategic objectives:

- to eliminate the identified problem points of the infrastructure; this significantly contributes to the improvement of existing condition whether the transport, economic and environmental point of view or through their combination,
- to establish conditions for fulfilment of commitments arising for the Slovak Republic from drafted guidelines for development of Trans-European Transport Network (TEN-T), i.e. to complete the construction of the core network TEN-T by 2030 and the comprehensive network not later than by 2050,
- to assure the gradual increase in funds for activities relating to the performance of the network maintenance and repairs so, that the internal debt would not be more increased,
- to increase the efficiency of the funds spending for implementation of the public passenger and non-motorised transport structures and services,
- to adjust the pre-project preparation processes for achievement of sustainable transport development,
- to contribute to the transport organisation and institutional changes leading to the more efficient operation of particular transport modes,
- to build the high-quality database of information necessary for planning the development of the transport sector,
- to support the informatisation of transport, telematics and intelligent transport systems,
- to increase the safety of transport systems,
- to decrease the energy intensity and the consumption of natural resources, to protect the ecosystems and consequently to support the development of the low-carbon economy,
- to reduce the socio-economic and environmental impacts of transport and to support the environmental and energy efficient safe transport, which will protect the environment with minimum emissions of harmful gases and ensure the decrease in fatal traffic accidents.

The preparation of the Phase II of document, the completion of which is expected by the end of 2016, will be used for system setting of the planning of transport system in Slovakia. Within this Phase the MDVRR SR shall ensure the preparation of the SR functional transport model which shall contribute to the system access to the definition of the transport infrastructure needs from various points of view as well as to the data collection in consecutive modelling of the transport and traffic demands on the network.

The objectives, priorities, measures and the management action plan in the sector of transport infrastructure development within the VUC administration will be included in the regional strategic transport plans and in the document "Strategic plan for development and maintenance of II. and III. class roads".

The strategic part of the SPRDI SR 2020 contains a proposal of particular visions, objectives, priorities, projects and project charters and the determining of recommendations for assurance of their financial coverage. The fulfilment of listed transport sector visions and objectives will be achieved through measures directly related to the problems and needs identified within the performed SPRDI SR 2020 analyses. Defined measures represent a strategic view at the solution of individual partial problems and needs and constitute a key input necessary for the proposal of particular projects. For the reason of the approach consistency observation the measures shall be divided into the system, organisation, operation, infrastructure, safety and environmental areas and then they are divided according to the individual transport sub-sectors.

### **SRVOND SR 2020**

The situation of public passenger and non-motorised transport (hereinafter referred to as the "VOND") in Slovakia is described in the SRVOND SR 2020 through the principles of exercise of the European Transport Policy, SR State Transport Principles and Strategy for development of transport in the Slovak Republic by 2020, which forms an Annex to SPRDI 2020. The document is basically divided into two contently specific oriented parts - the status analysis part and the design part. The document composition takes into account the particular VOND modes in the regional and the residential context, with segmentation into the organisation, operation and infrastructure aspects of the problem.

The analytic part in its conclusion defines the main problems of VOND in Slovakia.

The organisation of transport

- Fragmentation of the competence in the field of public passenger transport,

- Unsuitable coordination of particular transport sub-systems,
- Different interpretation of the term „public interest“,
- Data deficiency.

#### The operation

- Financial problems,
- Increasing share of individual car transport within the modal split,
- Insufficient train frequency,
- Insufficient capacities,
- System non-transparency.

#### The infrastructure

- Insufficient legislation and technical standards,
- Low rate of the preference of public passenger transport vehicles,
- Obsolete vehicle fleet,
- Uncompleted infrastructure,
- Maintenance.

To ensure the further VOD development the SRVOND SR 2020 proposes an elimination of identified negative aspects, bottlenecks and constraints. They relate to the organisation, operation and infrastructure.

The draft part of the strategy defines the visions and strategic objectives in organisation, operation and infrastructure areas aiming at the sustainable regional and urban mobility, the available reliable and user friendly public transport and the qualitative integrated public passenger and non-motorised transport.

Visions of the improvement of the present conditions are following:

On the basis of SRVOND SR 2020 visions, three strategic objectives in public passenger and non-motorised transport have been defined. For each objective the priorities have been defined in total number of 17 priorities. To achieve the objectives and priorities, the organisation, operation and infrastructure measures have been proposed, in total number of 56 items.

The organisation objective shall be to ensure a quality legislation, technical standards and strategic documents in order to support the public passenger and non-motorised transport.

The operation objective shall be to ensure the attractive supply of public transport including the high-quality and available transport information.

The infrastructure objective shall be to increase the quality of the vehicle fleet of the public transport and the public passenger and non-motorised transport infrastructure.

Measures of SRVOND SR 2020 shall mean activities contributing to the fulfilment of specific objectives. They are the basis for defining the projects, through implementation of which the objectives will be met. A single measure may be implemented through more projects.

During the SRVOND SR 2020 preparation, the technical working group for public passenger transport was established, the members of which were the representatives of the MDVRR SR, VÚC, largest cities, the majority railway carrier and external experts. Individual members provided supporting data, the information necessary for analyses and, in the framework of debates, main problems of the regions and cities, their visions and conceptions of solution have been identified. Also the negotiations with representatives of the VÚC, the key cities and their transport undertakings direct in the functional regions constitute a component of the process. In particular the "bottom-up" approach has been accentuated because the cities and VÚCs have the main responsibilities and rights in the field of the urban and regional mobility.

Subsequently, the individual members of the technical working group for the public passenger transport have provided the pipeline of project and project charters that fulfil the specified measures. Subsequently, in more cases an integration of the projects and project charters into concentrated units has been performed so that their effect in the event of their implementation was maximal, i.e. the defined objectives have been fulfilled as much as possible.



On the basis of 56 defined priorities and using the project pipeline, the implementation of 179 projects has been proposed; projects are divided according to regions and priorities ("green-green", "green", "yellow" and "red" projects).

Projects are accompanied by the draft indicating the Operational Programme (OPII + IROP), from which the European co-financing shall be applicable for the programming period 2014-2020. The division has been carried out according to following areas: projects of the railroad infrastructure including the renewal and extension of related rolling stock (OPII), projects in regional bus transport, cycling and walking and projects of greening of the bus vehicle fleet (IROP).

The issue of the SD measures assessment is worked out in the introduction of Chapter IV of the ER.

### *Connection of SPRDI SR and SRVOND SR 2020 with other strategic documents*

Within the proposal of the SPRDI SR and SRVOND SR 2020 and within the successive defining environmental objectives of ER, following policies, strategies, programmes and other strategic documents have been taken into account:

### *Strategic EU documents and legislation*

- Europe 2020 A strategy for smart, sustainable and inclusive growth<sup>1</sup>;
- proposals of integrated regulations within the Europe 2020 strategy<sup>2</sup>;
- Community strategic guidelines<sup>3</sup>;
- EC/EU legislation on cohesion policy<sup>4</sup>;
- EU legislation on competition rules;
- EC/EU legislation on public procurement<sup>5</sup>;
- EC/EU legislation on rules of protection and improvement of the environment<sup>6</sup>;

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1 COM(2010) 2020, final.

2 Proposal for a COUNCIL DECISION on guidelines for the employment policies of the Member States, Council document No 16220/13, 14 November 2013, Commission document COM(2013)803, 14 November 2013

3 COUNCIL RECOMMENDATION of 13 July 2010 on broad guidelines for the economic policies of the Member States and of the Union (2010/410/EU; p. 28) and COUNCIL DECISION of 21 October 2010 on guidelines for the employment policies of the Member States (2010/707/EU; p. 46)

4 COUNCIL DECISION of 6 October 2006 on Community strategic guidelines on cohesion (2006/702/EC)

5 Commission interpretative communication of 4 July 2001 on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement (COM(2002) 274 final)

COMMISSION REGULATION (EU) No 1251/2011 of 30 November 2011 amending Directives 2004/17/EC, 2004/18/EC and 2009/81/EC of the European Parliament and of the Council in respect of their application thresholds for the procedures for the awards of contract

COMMISSION REGULATION (EC) No 1177/2009 of 30 November 2009 amending Directives 2004/17/EC, 2004/18/EC and 2009/81/EC of the European Parliament and of the Council in respect of their application thresholds for the procedures for the award of contracts

DIRECTIVE 2009/33/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles

DIRECTIVE 2007/66/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2007 amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts

DIRECTIVE 2004/17/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors

DIRECTIVE 2004/18/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts

6 REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007

Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet'

- Legislative resolution of 19 November 2013 on the proposal for a regulation of the European Parliament and of the Council on Union guidelines for the development of the Trans-European transport network <sup>7</sup>;
- Decision No 661/2010/EU of the European Parliament and of the Council of 7 July 2010 on Union guidelines for the development of the Trans-European transport network<sup>8</sup>;
- Proposal for a Regulation of the European Parliament and of the Council on Union guidelines for the development of the Trans-European Transport Network<sup>9</sup>;
- WHITE PAPER: Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system<sup>10</sup>;
- ESDP, European Spatial Development Perspective, Towards Balanced and Sustainable Development of the Territory of the European Union, Luxembourg, Office for official publications of the European Communities, 1999;
- ESPON – European Spatial Planning Observation Network;
- Commission of the European Communities: Communication from the Commission to the Council and the European Parliament on Thematic Strategy on the Urban Environment<sup>11</sup>;
- Regulation (EC) of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road<sup>12</sup>;
- AGR, AGC, AGTC, AGN Agreements;
- A Roadmap for moving to a competitive low carbon economy in 2050<sup>13</sup>;
- EU strategy for Danube region;
- European Landscape Convention<sup>14</sup>.

#### Strategic documents of SR

- Principles of state transport policy of Slovak Republic;
- Transport policy of the Slovak Republic by 2015;
- Transport development strategy of Slovak Republic by 2020;
- National Strategy of Development of Cycling Transport and Cycle Touring in the Slovak Republic;
- Slovak Spatial Development Perspective (KURS 2001) - with amendments in binding and indicative part from 2011 (hereinafter referred to as the "KURS 2011", approved by the Regulation of the Slovak Republic Government No 461 of 16 November 2011, declaring the amendments of binding part of the Slovak Spatial Development Perspective;
- General plan of the road transport in the Slovak Republic, further elaboration of KURS 2001 (hereinafter referred to as the "ÚGCD SR");
- Polycentric concept of the settlement as the instrument ensuring the functional complexity at regional and local level, research task resulting from KURS 2001, (hereinafter referred to as the "PKO SR");
- National action plan for green procurement in SR for 2011 to 2015;
- Manifesto of the government of the Slovak Republic for 2012 - 2016 period;
- National Reform Programme of Slovak Republic for 2011 - 2014;
- Proposal of structure of Operational Programmes financed by European Structural and Investment Funds for the programming period 2014 – 2020;

7 (COM(2011)0650/3 – C7-0375/2012 – 2011/0294(COD))

8 No 661/2010/EU

9 COM(2011) 650, final.

10 COM(2011) 144, final.

11 COM(2005) 718, final.

12 No 1370/2007

13 COM(2011) 112, final.

14 Florence 20 October 2000, Council of Europe, European Treaty Series – No, 176.



Other national, sectoral strategic materials:

- New project of construction of motorways and expressways of 2001;
- Update of the new project of construction of motorways and expressways;
- Supplements to the New project of construction of motorways and expressways - approved Appendix 1. extension of the R1 expressway Banská Bystrica – Ružomberok, Appendix 2 (R8 expressway);
- Programme of continuation of preparation and construction of motorways and expressways for the 2011 - 2014;
- Long-term programme of development of railways;
- Programme of upgrading and development of railway infrastructure;
- Concept of development of inland waterway transport in the Slovak Republic (and its update);
- General programme of NAIADES implementation in Slovak Republic;
- Updated concept of development of public ports in Bratislava, Komárno and Štúrovo;
- National position to the EU strategy for Danube Region;
- Concept of development of the combined transport;
- Development of public transport prior to the individual transport;
- Documentation of EIA and SEA transport infrastructure projects;
- National plan of SR for BECEP 2011 – 2020

In addition to the abovementioned basic documents the following sources have been used:

- Operational programme 'Transport' 2007 - 2013;
- National Strategy of Sustainable Development;
- Proposal for CEF Regulation
- Common document of territory development of the V4+2 countries (Visegrad Four - V4, Bulgaria and Romania +2)
- ADVANCE and QUEST, European projects for development of audit and certification process of European Cities in the field of plans for sustainable development;
- Proposals of regulations in the area of structural politics 2014 - 2020;
- Proposal of Structure of Operational Programmes financed by European Structural and Investment Funds for the programming period 2014 - 2020 with comments received during the government negotiations;
- Means of implementation of ex ante conditionalities within the preparation of implementation mechanism of EU Cohesion policy after 2013 in conditions of the Slovak Republic.

### III. BASIC INFORMATION ON CURRENT STATE OF ENVIRONMENT IN AFFECTED TERRITORY

#### 1. INFORMATION ON CURRENT STATE OF ENVIRONMENT, INCLUDING HEALTH AND ITS EXPECTED DEVELOPMENT IF THE STRATEGIC DOCUMENTS ARE NOT IMPLEMENTED

The chapter contains an analysis of current state of areas that are relevant for assessment of transport infrastructure development, a trend of their development and expected development in case the SPRDI SR 2020 and SRVOND SR 2020 measures would not be implemented. Its scope results from defined environmental objectives and indicators, which allow for the assessment of SD impacts and the follow-up monitoring of the measures implementation. Information was acquired in particular from nationwide databases of MŽP SR, SAŽP, SHMÚ, VÚVH, VÚD, ŠGÚDŠ and related strategic documents, plans and programmes.

With regard to uncertainty of future trends in economic development, technological progress, regulatory and legislative frameworks influencing them, the description of an expected development in case that the SD measures would not be implemented, has been in some cases marked by the indeterminacy. While elaborating on the characteristics of future development of zero variant, the ER elaborators were relying especially on trends of development of particular areas in the past years and taking into account the present context.

##### 1.1 Transport aspects in relation to settled territory

###### *Objectives*

- *To ensure the access to basic and transport services and to the market*
- *To ensure efficient transport services in national (SPRDI SR 2020), regional and local (SRVOND SR 2020) context*
- *To contribute to the cohesion of the settlement in SR with significant settlement systems abroad*
- *To accept the principles of an effective use of the capacity of planned transport infrastructure (TI)*

###### *State of settlement systems, background and trends*

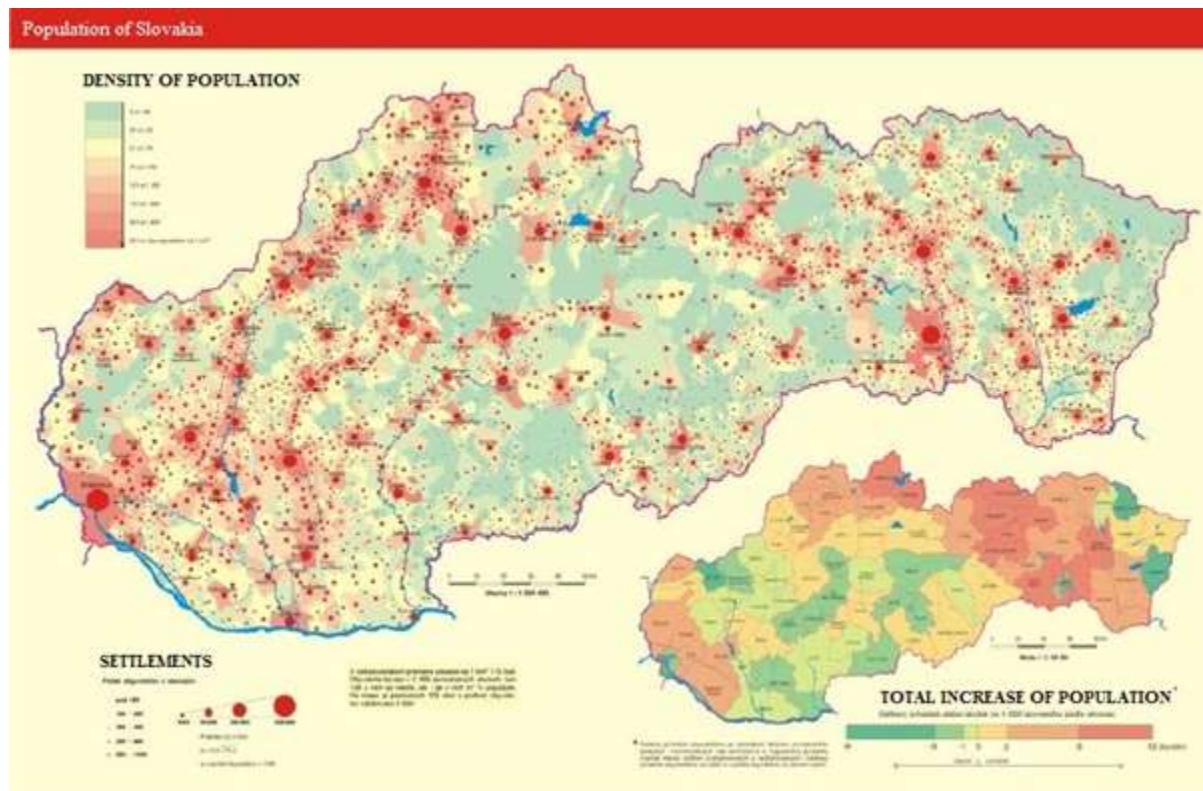
Transport is one of the key factors of development of every modern society and, while by itself it is not the objective, it is an instrument of economic development and a precondition to achieve the social and regional cohesion. As it links different sectors, the transport through its specific function works across the economy. It facilitates to master the distances, provides opportunities for improvement of the division of labour within the production and promotes productivity of workforce and capital, thus promoting the growth of prosperity and economic competitiveness. The transport infrastructure programming therefore primary depends on the distribution of territorial transport resources and objectives. A residence gravity of inhabitants creates a native structure of nodal regions – reflected in the basic zoning of the Slovakia and the transport regionalism.

The Slovak Spatial Development Perspective KURS 2001, as amended by KURS 2011 (hereinafter referred to as the "KURS 2001"), in its binding part is concerned with the basic-catchment zoning of the Slovak Republic territory. The basic zoning represents the Slovakia division into the minimum number of functional catchment regions. Based on the intensity of settlement and transport links the territory division into the basic regions reflects the generally recognised theories of land-use planning and regional science. In conformity with them the transport and settlement relations are formed on the gravitation principle which takes into account the settlement intensity and mutual distances of the settlements. The settlement intensity copies relatively exactly the territory characteristics and specifications, its suitability for the establishment and permanent use of the space for housing. Unsettled or very sparsely populated areas do not generate sufficiently the intensive settlement and transport links. In most cases there are the mountainous countries the values and potential of which

has often a character of protected natural areas. Abovementioned areas create the restraints for the intensification of settlement links thereby the regional frontier are naturally formed. The settlement of Slovakia acquires its intensity in more densely populated plain areas and river valleys. In abovementioned areas, there are point and zone systems of the residential centres that create the transport-gravitation cores of the regions and their main transport axes. The most significant transport axes have been formed in the river valleys with natural settlement concentration mutually supported by the localisation of the most significant transport components: the roads and the railways.

The fact, that the region native borders of Slovakia are made up by the protected natural areas (the national system of protected sites, Natura 2000), shall be a reason for very strong environmental aspect of the basic catchment zoning of the Slovakia.

Figure 1 Distribution of the population in Slovak Republic, population density and increase



Source: SPRDI SR 2020

A dynamics of development of the largest cities characterizes their evolution stages through the change in the number of inhabitants. Absolutely highest values have been recorded for Banská Bystrica city in the period 1950 to 1991 (coefficient 6.25). For Žilina and Martin cities the highest growth (coefficient around 4.0) has been recorded in periods connected with the industry development (1869 – 1921 – 1950). Within the period 1999 to 2012 the reduction in the number of inhabitants of abovementioned cities; this may be assigned in a great extent to the urbanisation process (the most in Bratislava).

Tab. 2 Trend in the number of inhabitants in the largest cities of Slovakia

	City	1869	1921	1950	1991	1999	2012	1921/ 1869	1950/ 1921	1991/ 1950	1999/ 1991	2012/ 1999	2012- 1999
1	Bratislava	46 540	93 189	192 896	442 197	448 292	415 589	2,00	2,07	2,29	1,01	0,93	-32 703
2	Košice	21 742	52 898	62 729	235 160	241 874	240 164	2,43	1,19	3,75	1,03	0,99	-1 710
3	Prešov	10 772	17 577	22 947	87 765	93 977	91 352	1,63	1,31	3,82	1,07	0,97	-2 625
4	Nitra	10 683	19 118	22 203	89 969	87 591	78 607	1,79	1,16	4,05	0,97	0,90	-8 984
5	Žilina	2 870	12 073	26 034	83 911	86 818	81 382	4,21	2,16	3,22	1,03	0,94	-5 436
6	B. Bystrica	5 950	10 587	13 605	85 030	84 272	79 583	1,78	1,29	6,25	0,99	0,94	-4 689
7	Trnava	9 737	17 745	26 078	71 783	69 802	66 073	1,82	1,47	2,75	0,97	0,95	-3 729
8	Martin	1 844	5 657	24 383	58 393	60 870	57 023	3,08	4,31	2,39	1,04	0,94	-3 847
9	Trenčín	3 949	10 411	16 235	56 828	59 174	55 883	2,64	1,56	3,50	1,04	0,94	-3 291
10	Poprad	1 061	2 881	10 259	52 914	55 398	52 765	2,72	3,56	5,16	1,05	0,95	-2 633

Sources:

KOREC, P. Changing urban structure of Bratislava at the beginning of 21st century, AFRNUC, Geographica, 46, 141-159 (2006)  
 Retrospektívni lexikón obcí ČSSR (Retrospective lexicon of municipalities of ČSSR), 1850-1970 I/2, FSÚ, Praha, 1978  
 Štatistický lexikón obcí SR 1992 (Statistical lexicon of municipalities of SR), 1992, ŠÚ SR, Bratislava, 1992  
 Štatistická ročenka Slovenskej republiky (Statistical yearbook of the Slovak Republic), Štatistický úrad Slovenskej republiky (Statistical Office of the Slovak Republic), Bratislava, 2000  
 Databáza mestskej a obecnej štatistiky (Database of urban and municipal statistics), Štatistický úrad Slovenskej republiky (Statistical Office of the Slovak Republic), Bratislava, 2014

According to the binding part of the KURS 2011 Slovakia is divided into following catchment regions:

- Bratislava, as the specific metropolitan territory of the State;
- South-western Slovakia and transport-gravity centre Nitra/Trnava, formed by the areas of Podunajská nížina lowland, approximately the territory of the Trnava and Nitra regions
- North-western Slovakia and transport-gravity centre Žilina/Martin, i.e. the Považie, including the sub-regions along the Váh river tributaries, situated approximately in the territory of the Trenčín and Žilina regions;
- Central Slovakia and transport-gravity centre Zvolen/Banská Bystrica, identical with the areas Pohronie a Poíplie, the territory of the Banská Bystrica region;
- Eastern Slovakia and transport-gravity centre Košice/Prešov, including the areas of the Prešov and Košice regions.

Used classification of the region „Central Slovakia“ as the space incorporating together the Banská Bystrica and Žilina regions (Pohronie and Považie) is not actually and exactly justified with regard to the region catchment classification. The origin and name of region, dated from 1961, when a Constitution of ČSSR has been adopted; it has enacted a new division of the State territory into the regions. An arrangement of regions did not take into account the principles of catchment division of territory but the doctrine of directive controlled State in full extent has been enacted in it. The territories of Banská Bystrica and Žilina regions are separated with - in Slovakia the most largest - continuous natural barrier of unsettled mountain chains Veľká Fatra and Nízke Tatry (territories of the National Parks and the Natura 2000), preventing from the development of settlement links up to the level of required regional intensity. Regional division of the Slovakia into the Western, Central and Eastern parts is therefore in conflict with the principles of nodal (catchment) arrangement and the principles of polycentricity adopted by the Slovakia as the EU Member State. Trips of inhabitants for regional core and transport services subject to their unsuitable distribution within the division west-middle-east, crossing the large spaces of the national system of protected areas and the Natura 2000 site, have environmentally unacceptable character and they are in conflict with sustainable mobility principles. An environmental dimension of the basic catchment zoning of Slovakia shall be one of determining factors for the assessment of impacts of the transport services of settlements on environment. The localisation of the core and transport services in natural catchment regions creates conditions for the decrease in high transport demands of the normal economic and social life, the improvement of the population life quality, the elimination of the environmental burden with unjustified transport and traffic processes.

The process of the KURS 2001 preparation has been formalised by variants from its start. At the end of 1990's, during the draft stage, two variants of the Slovakia spatial development have been studied and commented by the expert community. The triple-pole variant represents a continuation of economic and social-policy development line from the period before the 1989. In a settlement and transport context it preferred the development of cities Bratislava, Banská Bystrica and Košice; they should initiate consecutive development stimuli for the regions established by the ČSSR Constitution from 1961 (West, Central, East). A polycentric variant proceeded from the polycentricism principles included in the European Spatial Development Perspective (hereinafter referred to as the "ESDP") and from principles of the sustainable development and environmental acceptability. A polycentric variant was accepted by the expert community in significant ratio and it represents the key doctrine for the spatial development of Slovakia transferred into the binding parts of KURS 2001 approved by the Government.

A graphical projection of the basic zoning – transport regionalisation is displayed in source materials of graphical schemes listed in the Annex to the Environmental Report.

The binding part of KURS 2011 defines the settlement structure of Slovakia from the top level to the local level. Top levels of the settlement structure are relevant for the establishment of superior transport system; in relation to them the localisation of the State transport services shall be necessary. In this context the main role is played by the polycentric networks of settlement core areas and the urban agglomerations the interconnection of which will be supported by development axes.

Tab. 3 Arrangement of settlement structure in Slovakia according to KURS 2011

Level	Level specification	Agglomeration of quaternary activities	Core settlement areas
Top	International - European		Bratislava - Trnava
	International	Bratislava-Trnava-Nitra agglomeration	Košice - Prešov
		Košice-Prešov agglomeration	
	Nationwide - International	Banská Bystrica-Zvolen agglomeration	Banská Bystrica-Zvolen
		Žilina-Martin agglomeration	Žilina-Martin
	Nationwide		Nitra Trenčín
Second	Supraregional		Liptovský Mikuláš-Ružomberok-Dolný Kubín
			Lučenec-Rimavská Sobota
			Michalovce-Vranov-Humenné
			Nové Zámky - Komárno
			Poprad - Spišská Nová Ves
			Považská Bystrica - Púchov Prievdza

Source: KURS 2011

Tab. 4 Arrangement of development axes in Slovakia according to KURS 2011

Degree of development axis	Name of development axis	Localisation of development axis
1 <sup>st</sup>	považská	Bratislava – Trnava – Trenčín – Žilina
	žilinsko-podtatranská	Žilina – Martin – Poprad – Prešov
	žilinsko-kysucká	Žilina – Čadca – border with Czech Republic
	košicko-prešovská	border with Republic of Poland – Svidník – Prešov – Košice – Čaňa – border with Hungary
	nitriansko-pohronská	Trnava – Nitra – Žiar nad Hronom – Zvolen
	zvolensko-turčianska	Zvolen – Banská Bystrica – Turčianske Teplice – Martin (in section Banská Bystrica – Turčianske Teplice as communication-settlement axis)
	zvolensko-južnoslovenská	Zvolen – Lučenec – Rimavská Sobota – Rožňava – Košice
	východoslovenská	Košice – Sečovce – Michalovce – Sobrance – border with Ukraine
	záhorská	Bratislava – Malacky – Kúty – border with Czech Republic
	lyská	Beluša – Púchov – Lysá pod Makytou – border with Czech Republic

Source: KURS 2011

When evaluating whether the constructions and operation of transport infrastructure proved successful, the important factor is the information on number of inhabitants, for who the infrastructure is available in a real time necessary to reach it. For the purpose of evaluation of the accessibility for population, specific criteria are used, so the number of people living in gradual time isochrones - by 15, 30 and 45 minutes from the point of connection to the motorway or expressway may be determined. In the following tables the efficiency of transport service in possible west-east and north-



south road interconnections of Slovakia is compared. The abovementioned context has to be taken into the account with regard to evaluation of parameters of transport services of Slovakia by projects of road infrastructure in SPRDI SR 2020.

Tab. 5 Accessibility of west-east motorway and expressway routes

Route	Unit	Accessibility in minutes			Length of the route in km	Number of accessible population per 1 km of the route		
		by 15 min	by 30 min	by 45 min		by 15 min	by 30 min	by 45 min
Bratislava-Žilina-Košice	Population	2,493,881	3,528,473	4,534,098	428	5,827	8,244	10,594
	Percentage of population of SR	46.36	65.59	84.29				
Bratislava-Zvolen-Košice	Population	2,007,579	3,033,744	4,045,304	394	5,095	7,700	10,267
	Percentage of population of SR	37.32	56.40	75.20				
Bratislava-Nové Zámky-Košice	Population	1,463,330	2,641,615	3,393,548	363	4,031	7,277	9,349
	Percentage of population of SR	27.20	49.11	63.08				

Source: General Plan of the road transport in SR / KURS 2001, MŽP SR, Aurex s.r.o., Bratislava, May 2003

Tab. 6 Accessibility of west-east motorway and expressway routes

Route	Unit	Accessibility in minutes			Length of the route in km	Number of accessible population per 1 km of the route		
		by 15 min	by 30 min	by 45 min		by 15 min	by 30 min	by 45 min
Border SR/Poland Skalité-Žilina-Martin-B.Bystrica-Šahy border SR/Hungary	Population	875,505	1,554,891	2,182,857	239	3,663	6,506	9,133
	Percentage of population of SR	16.27	28.90	40.58				
Border SR/Poland - Trstená-Ružomberok-B.Bystrica-Šahy - state border Hungary	Population	536,893	936,256	1,442,857	203	2,645	4,612	7,108
	Percentage of population of SR	9.98	17.40	26.81				
Border SR/Poland - Svidník-Košice-Milhošť - border SR/Hungary	Population	587,533	933,705	1,352,954	145	4,052	6,439	9,331
	Percentage of population of SR	10.92	17.36	25.15				

Source: General Plan of the road transport in SR / KURS 2001, MŽP SR, Aurex s.r.o., Bratislava, May 2003

A concept of the SR settlement polycentricity is important in the State internal as well as external context where it establishes common content platform allowing the consistent monitoring and mutual coordination of developing trends.

The SR settlement polycentricity is a subject matter of the further elaboration of KURS 2001 in a PKO SR research project. Document „European Spatial Development Perspective" (hereinafter referred to as the "ESDP") has been adopted as the political framework for Community and EU Member States sectoral policies with the territorial impacts. Main principles of the document include – with the direct relation to the assessment of SPRDI SR 2020 – the sustainable territorial development, the development of a polycentric urban system, parity of an access to the infrastructure and the knowledge.

Functional urban areas (hereinafter referred to as the "FUA") may be defined as the agglomeration of municipalities grouped together in compliance with their functional orientation reflecting the everyday life of people, economic subjects and societies. A high importance of FUA consists in its ability to overcome administrative restraint and limits.

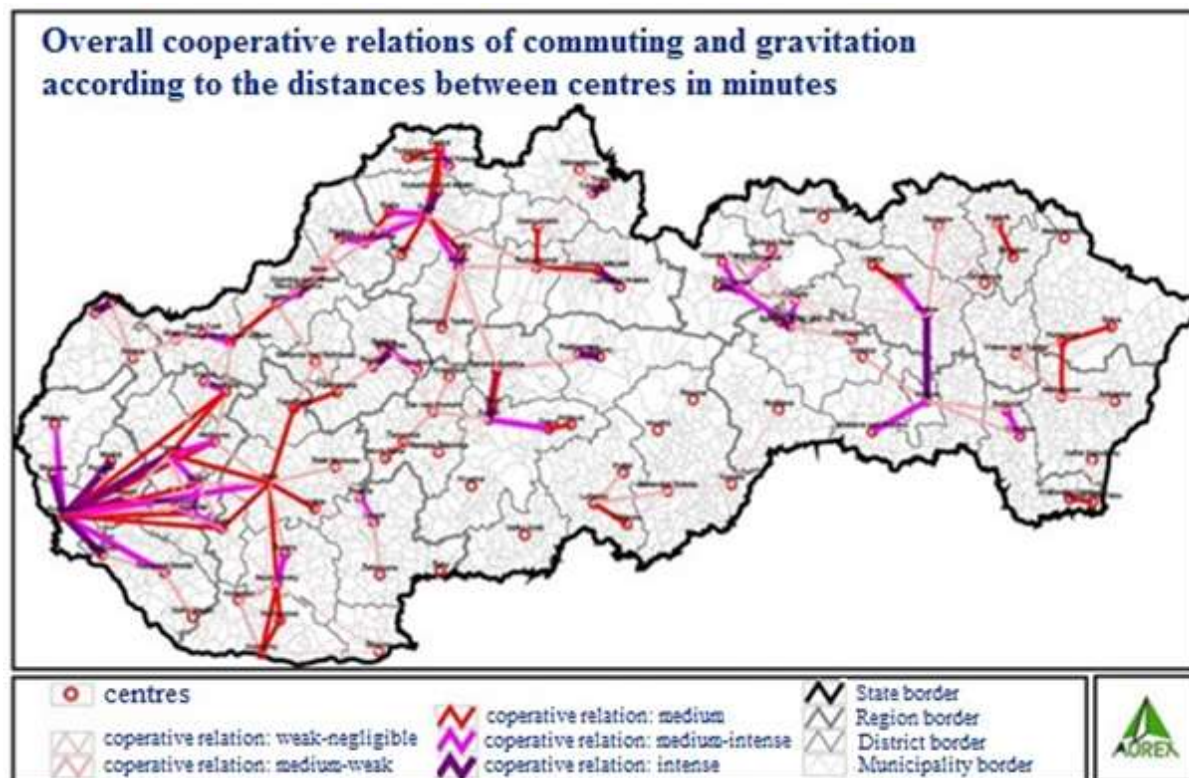
Within the Slovakia settlement the network of centres is established; such centres affect the surroundings through their attractiveness and thus creates the FUA. Simultaneously, the cooperation relationships between centres are established that are based on the mutual commuting of population with regard to the job, services and education. Along with the decrease in mutual distances the potential of cooperative links increases. Larger centres generate the currently and potentially long distance cooperative relations thus creating the system of mutually cooperating FUA – polycentric settlement systems. On the basis of inquiry of the settlement cooperative relation intensity and aiming the PKO SR has provided documentation for the localisation of FUA and polycentric settlement systems in Slovakia.

It is exactly and empirically proved that the intense cooperative links between the centres – including their FUA – have established in Slovakia the four most developed polycentric settlement systems and the one specific polycentric settlement system. The system of centres around the cities Bratislava, Trnava a Nitra represents the specific and largest polycentric settlement system of a multilateral character. In addition to the intense cooperative relations between regional capitals such cities concurrently create the intense cooperative relations with the centres situated in their neighbourhoods. Four polycentric settlement systems in Slovakia are situated in the central Považie (Trenčín agglomeration), in north-west (Žilina and Martin agglomeration), Central (Banská Bystrica and Zvolen agglomeration) and Eastern Slovakia (Košice and Prešov agglomeration). In addition to abovementioned polycentric systems also the areas with less intense cooperative relations are in Slovakia (Horná Nitra, Sub-Tatra area and other). From the total number of 27 FUA assessed in ESPON only one - Bratislava - has been classified as the MEGA of the category 3, 7 FUA have been classified as the urban spaces of international or national importance (Trnava, Trenčín, Nitra, Žilina, Banská Bystrica, Prešov, Košice) and 20 FUA have been classified as the urban space of regional importance.

It is apparent that, except for abovementioned factors, the polycentricity of the Slovak territory is primary also influenced by its morphology and natural conditions. With a reference to the morphological and territory circumstances the settlement localisation, and therefore also its polycentric systems, may be considered as stable and practically invariable. The changes may occur in strengthening of cooperative relations of the centres within existing less developed systems.

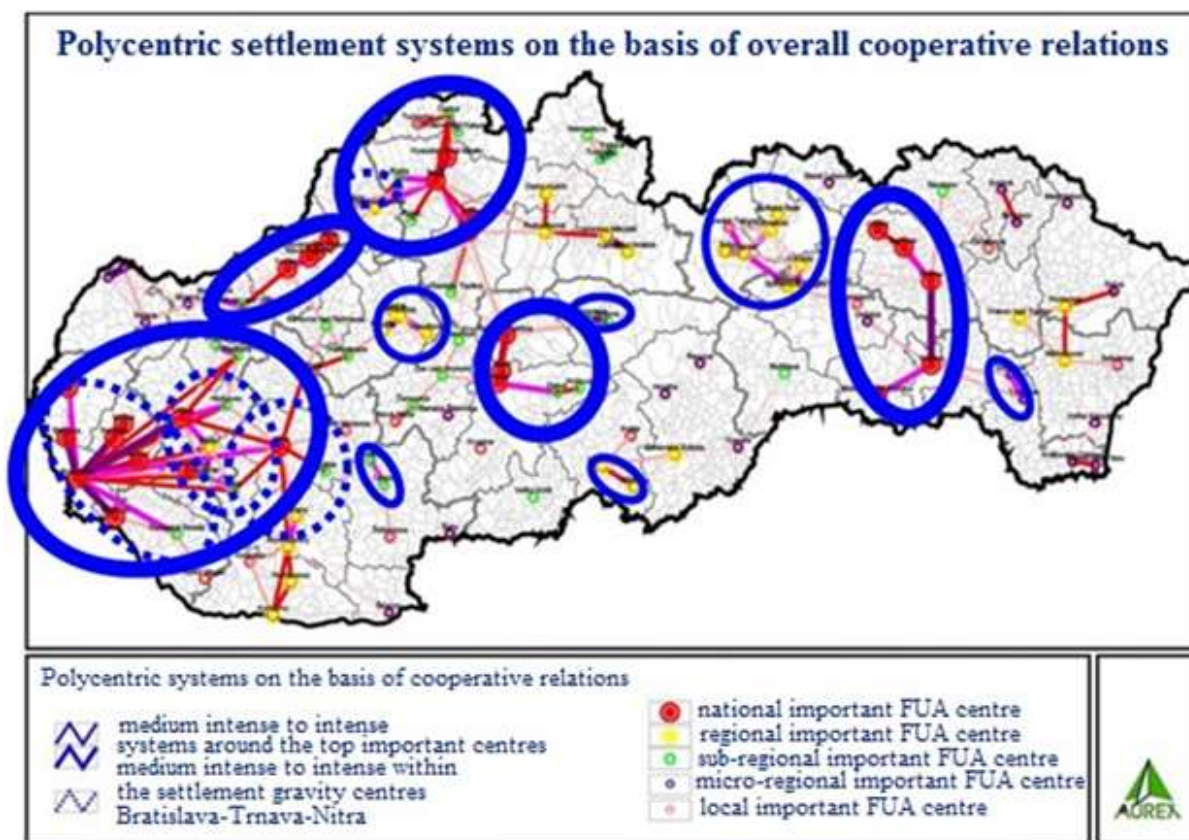
In addition to the size criteria, the localisation and functional interconnection of centres also the criterion of their mutual distance or time accessibility constitutes an important element of the FUA concept and the settlement polycentricity. Mentioned factor of accessibility establishes a space for the content fulfilment of the polycentricity concept also through the priority projects recommended by the SPRDI SR 2020 and SRVOND SR 2020. Successful transport infrastructure projects may therefore act either as the fulfilment of the requirement for improvement of accessibility of the intense cooperating centres and settlement systems or as the catalyst of cooperative links in less developed settlement system. Unsuccessful projects may be projects with minimum or none contribution to the settlement and regional cohesion. Abovementioned context has to be taken into account within the framework of the SD settlement aspect assessment.

Figure 2 Overall cooperative relations



Source: Polycentric concept of settlement as the instrument ensuring the functional complexity at regional and local levels, (PKO SR), Aurex Bratislava.

Figure 3 Polycentric settlement systems on the basis of overall cooperative relations



Source: Polycentric concept of settlement as the instrument ensuring the functional complexity at regional and local level, (PKO SR), Aurex Bratislava.

The public and political spheres repeatedly combine the region lagging phenomenon with an absence so called the "large" transport infrastructure. It is necessary to note that this is very simplified comprehension of factors influencing the competitiveness of regions.

According to the work „Underdeveloped regions of Slovakia – trial to identify and indicate the reasons“<sup>15</sup> the regional competitiveness, i.e. the region ability to be successful in competition with other regions, shall be very differentiated. On the one hand, there are many factors influencing the options of regions to improve their competitiveness. It is very important to assess the factor of macro-positional attractiveness perceived not only as the current position to significant core spaces of the continent and the State, but also as the historically obtained advantage of the region. Different authors confirm the effects of the neighbourhood factor of depression regions in surrounding states and the unique factor of demographic structures. Also the factors of improper economic specialisation of Slovak regions before 1989, the effect of current changes of region economic sectoral structures, the processes connected with a globalisation as well as ineffective regional policy of the EU and Slovakia play a very important role. Along with this it is necessary to note that the regions possess some internally coded properties preventing them from development of their competitiveness. Several authors from the EU countries referred to in abovementioned work say about such internally coded properties as about the "culture of the region".

15 KOREC PAVOL, POLONYOVÁ EVA, ACTA GEOGRAPHICA UNIVERSITATIS COMENIANAE, Vol. 55, 2011, No. 2, pp. Geographia Slovaca, 15. Funkčné mestské regióny na Slovensku. 165-190

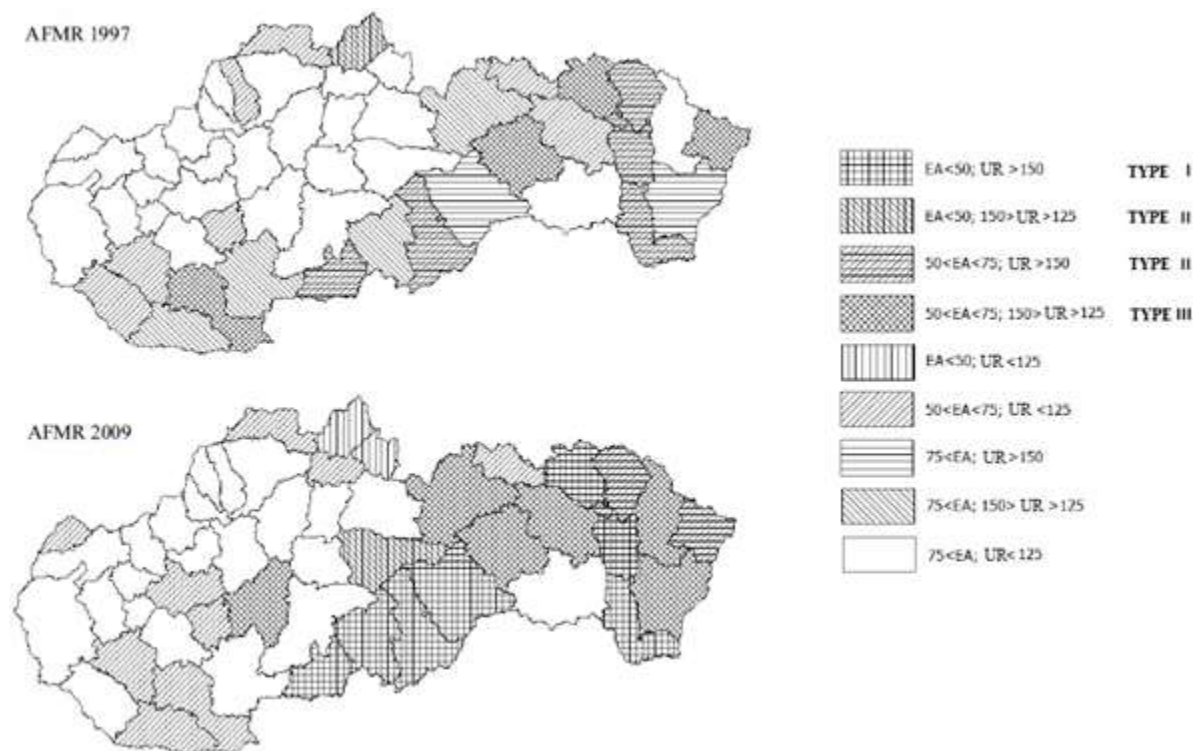


Current stratification of the Slovak regional structure has been established in the past including the emergence of underdeveloped regions and it shows apparent time stability. Its grounds have been laid in period of starting the modern industry in the Slovakia territory in the second half of 19<sup>th</sup> century.

Within abovementioned work 16 underdeveloped regions of AFMR have been identified in Slovakia (approximated functional urban regions - AFMR, their identification is taken from the works of Anton Bezák<sup>16</sup>). With regard to the assessment of environmental impacts of the transport infrastructure it is necessary to deal with its localisation related to the arrangement of underdeveloped regions. Only the AFMR Žiar nad Hronom situated in the western part of Slovakia represents a single exception. But also successful regions Košice and Stará Ľubovňa are situated in the Eastern Slovakia. Abovementioned facts support only partially the used statement on developed west and underdeveloped east of Slovakia. A successful Košice is not connected with the homogeneous motorway as well as Stará Ľubovňa, where the motorway is not intended. On the contrary an underdeveloped region Žiar nad Hronom is connected to the expressway R1. Adequate qualitative level of the transport infrastructure is a decisive factor for ensuring the transport accessibility of the region thereby the region development is supported. Oversized performance of new road constructions (motorway, expressway) does not assure the economic and social development of regions.

Following figures identify the arrangement and development of underdeveloped regions.

Figure 4 Spatial arrangement of underdeveloped regions (TYPE I to TYPE III).



Source: Zaoštvávajúce regióny Slovenska, pokus o identifikáciu a poukázanie na príčiny, Korec, Polonyová, 2011

### ***Expected development of settlement systems in national context if the SD would not be implemented***

In case that the measures and projects defined in SPRDI SR 2020 will not be implemented, an access for the population and the economic sector of Slovakia to the core and transport services situated in transport and gravitation centres, settlement core areas and along the transport and residential developing corridors will be embarrassed. With regard to the environment this fact will result in the deterioration of environment quality, the conditional growth of traffic performances on existing I. class

<sup>16</sup> Funkčné mestské regióny na Slovensku. GEOGRAPHIA SLOVACA, 15, 2000, Bratislava (Geografický ústav SAV)

roads across the residential area of cities and municipalities within the routes of not implemented projects of the motorway and expressway constructions. Giving up the trend of upgrading the railway lines shall stop the process of creating the competitive railway transport and it will result at least in the stagnancy and likely also in the reduction of performances of an environmental more acceptable passenger and freight railway transport, what will have an adverse impact on the modal split.

Underdeveloped regions in the southern part of the Central and Eastern Slovakia will have limited options for establishing the conditions for the improvement of socio-economic condition through more qualitative transport accessibility in the road and railway transport.

A failure to implement priority projects in public passenger and non-motorised transport under the SRVOND SR 2020 shall result - with regard to the programme of polycentric development of the settlement structure in Slovakia - in the economic and likely social stagnancy of affected centres and polycentric systems in Slovakia. Negative effects resulting from an absence of the passenger mass transport through the railway transport and urban mass transport may, within the Bratislava agglomeration, involve in barely solvable transport situation in respect of the performance of existing road network. When this situation arises its adverse reflection will be recognizable in the internal and external associated spaces of polycentric settlement systems in Slovakia.

Tab. 7 Estimated traffic load in corridor of uncompleted motorways and expressways, zero variant, rural sections of roads

Motorway Expressway	Construction section of motorway, expressway	Existing road in corridor	Average AADT value, [vehicles/24h]		
			AADT 2010	AADT 2020	AADT 2040
D1	Hričovské Podhradie - Lietavská Lúčka	I/18**	36,676	-	-
	Feeder Lietavská Lúčka - Žilina	I/64**	16,532	-	-
	Lietavská Lúčka - Višňové - Dubná Skala	I/18	26,672	39,466	63,789
	Turany - Hubová	I/18	16,766	24,821	40,131
	Hubová - Ivachnová	I/18	19,986	29,643	47,996
	Prešov západ - Prešov juh	I/18, I/68**	19,062	-	-
	Budimír - Bidovce	I/50	14836	19,875	29,789
D3	Žilina Strážov - Žilina Brodno	I/18, I/11**	36,021	-	-
	Žilina Brodno - Kysucké Nové Mesto	I/11	21,501	30,394	47,420
	Kysucké Nové Mesto - Oščadnica	I/11	15,281	21,505	33,401
	Čadca Bukov - Svrčinovec	I/11	13,240	18,626	28,920
	Svrčinovec - Skalité	I/12*	3536	-	-
R1	Banská Bystrica - Donovaly - Korytnica	I/59	7,858	10,342	15,208
	Korytnica - Ružomberok	I/59	7,869	8,388	12,296
R2	Križovatka D1 - Pravotice	I/50	12,461	14,792	18,873
	Pravotice - Handlová	I/50	11,307	13,475	17,260
	Handlová - Žiar nad Hronom	I/50	7,235	9,088	12,570
	Kriváň - Ožďany	I/50	10,509	13,398	18,937
	Ožďany - Košice Šaca	I/50	7,631	9,726	13,422
R3	State border SR/Poland - Trstená - Sedl. Dubová	I/59	8,583	10,323	13,377
	Oravský Podzámok - Dolný Kubín - D1 Hubová	I/59	10,820	12,992	16,793
	Martin - Rakovo	I/65	18,959	22,904	29,886
	Rakovo - Šášovské Podhradie	I/65	6,497	7,807	10,114
	Zvolen - Šahy - state border SR/Hungary	I/66	5,432	6,559	8,561
R4	state border SR/Poland - Lomné	I/73, I/15	4,548	5,426	7,113
	Hanušovce - Kapušany - Nižná Šebastová	I/18	14,430	17,211	22,592
R5	Svrčinovec - state border SR/Poland	I/11	8,906	10,520	13,242
R6	Púchov - state border SR/Czech Republic	I/49	5,088	5,763	6,966
R7	Bratislava - Dunajská Streda	I/63	13,448	17,109	21,730
	Dunajská Streda - Nové Zámky	I/63	7,974	9,663	12,491
	Nové Zámky - Lučenec	I/75	3,707	4,491	5,863
R8	Nitra - Pravotice	I/64	6,465	7,704	9,847

Explanatory notes:

Source: ER

\* prognosis according to MP01/2006 is not trustworthy, on the original road I/12 there is a limited entry of goods vehicles over 7.5 t

\*\* part of residential areas – in residential areas, it is not possible to apply a prognosis procedure according to MP01/2006, it is possible to use data from city transport model if available

According to prognosis results in abovementioned table, the trend of a relatively high growth of the traffic intensity will continue within the road transport zero variant in rural areas of existing I. class

roads in the corridor of motorways D1 and D3. In the corridor of the motorway D3 - on the road I/11 – the trend of alarming high share of heavy freight transport will continue (current range 33 – 55%).

The SPRDI SR 2020 and SRVOND SR 2020 describe also the transport infrastructure condition, the background and trends of transport infrastructure development in case that the supported transport infrastructure projects would not be implemented.

#### *Settlement systems in cross-border context*

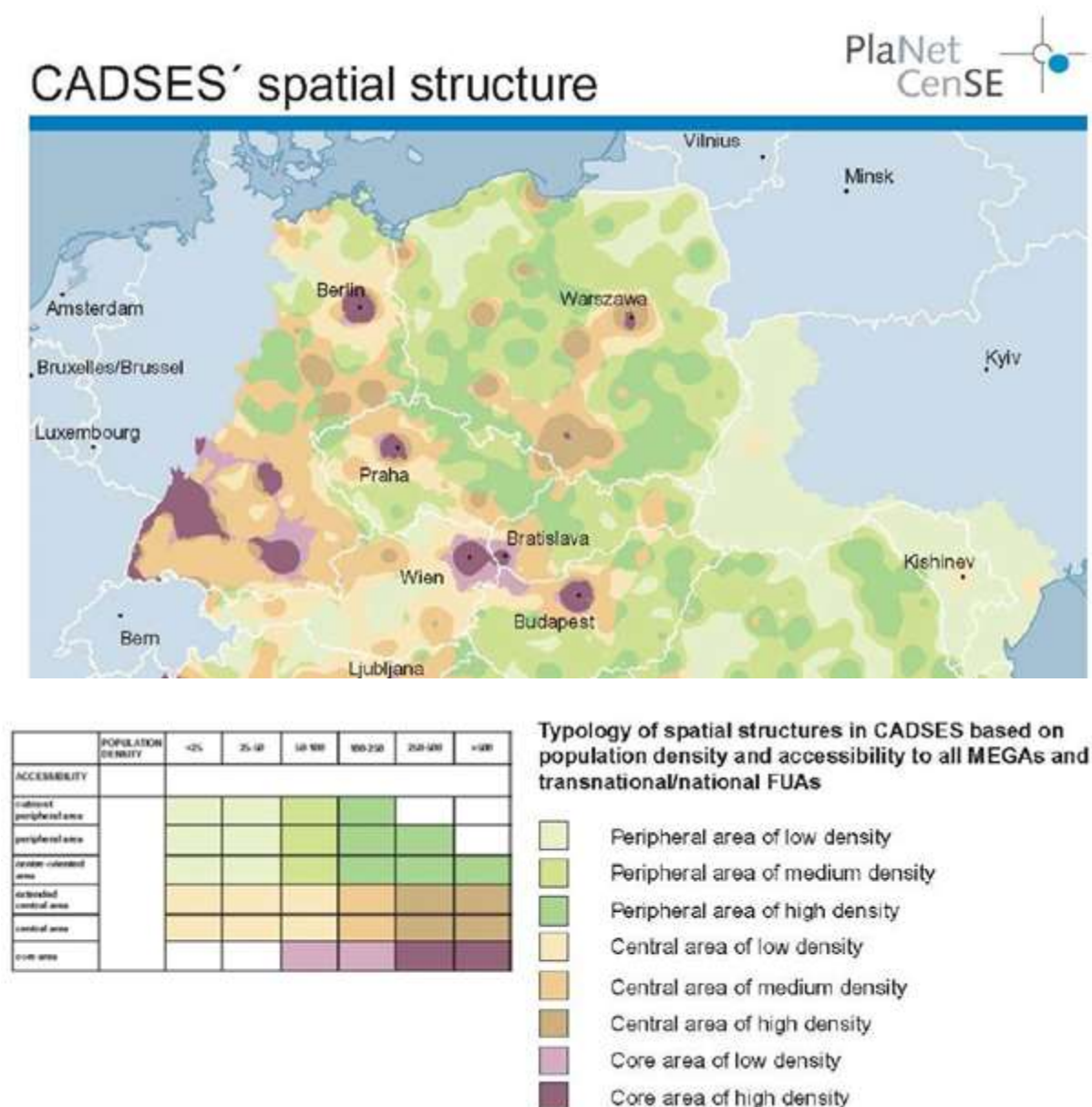
The European Union fosters the principle and concept of the settlement polycentricity also in cross-border context of its Members States. In the mentioned context, the cross-border cooperative relations of Slovak polycentric settlement systems with abroad partner systems are well documented.

Through the Resolution of the Government of the Slovak Republic No 402/2010 the Common document of territory development of the V4+2 countries (Visegrad Four - V4, Bulgaria and Romania +2) has been adopted. In this document, the KURS 2001 has been transposed in term of the development axes, poles and corridors of the transport infrastructure related to the V4+2 countries. The document identified discontinuities of countries between development axes and poles and absence of international continuity of road and railway networks. Such discontinuities have been bilaterally negotiated between particular countries. Results of solving are transposed into the subsequent stages of the work, the Common strategy for the V4+2 territory development being currently in the phase of preparation.

With regard to an uncompleted status of the Common strategy preparation for the V4+2 territory developments, the international dimension of the continuity of residential and transport-residential relations is presented through the ESPON programme and its elaboration in the „PlaNet CenSE“ (Planners Network for Central and South East Europe) project..

The project analyses the starting points establishing the assumptions of cities within the CADSES space to participate in creating the cooperative residential networks. Following figure shows the residential space typology through the population density and accessibility of agglomeration core territories. The Slovak territory is classified within the meaning of specified typology.

Figure 5 Typology of spatial structures by the settlement density and accessibility of MEGA and FUA within the CADSES area



Explanatory notes:

- CADSES, Central, Adriatic, Danubian and South-eastern Space
- MEGA (Metropolitan Growth Area)
- FUA (Functional Urban Area)

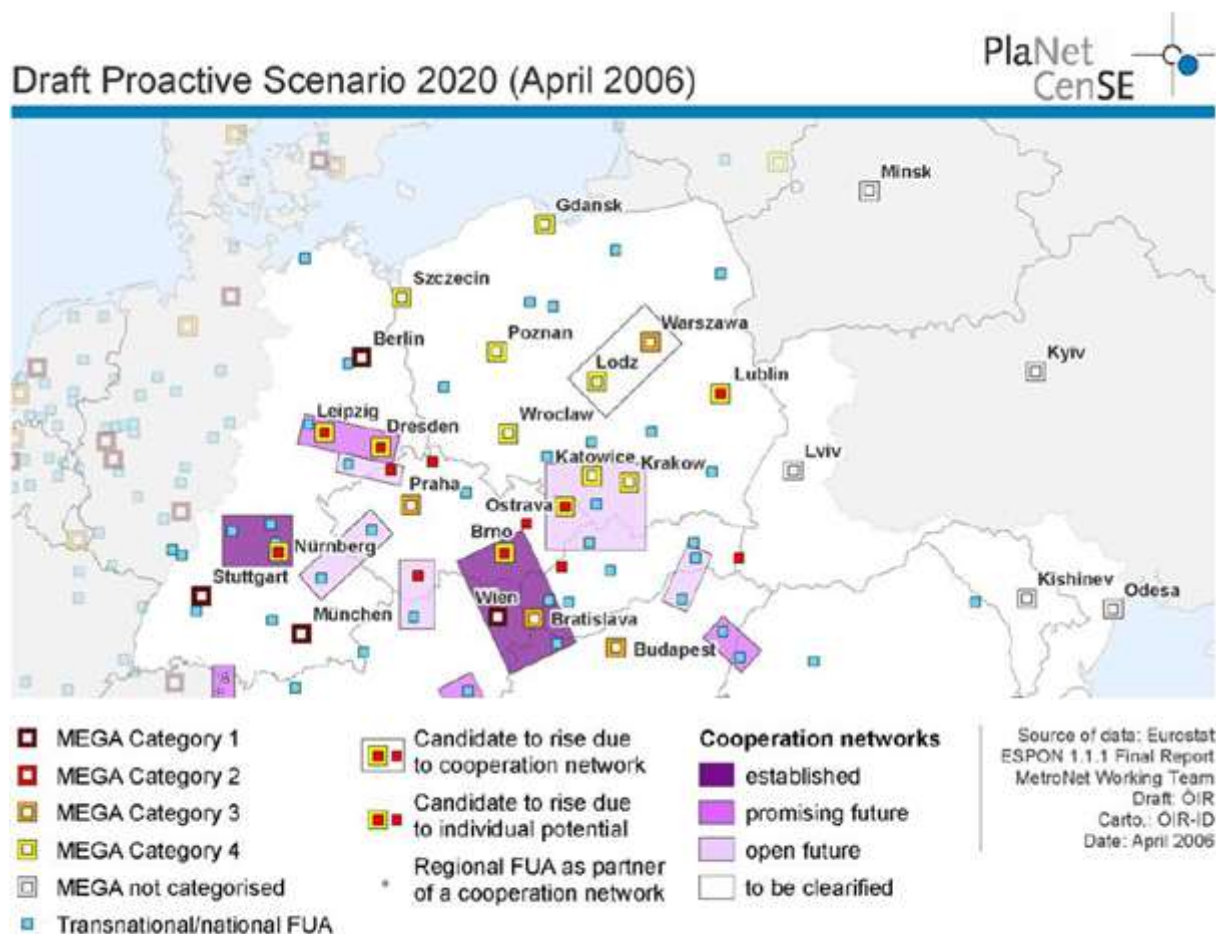
Source: PlaNNet CenSE (Planners Network for Central and South East Europe, 2006)

The project shall look over the network of cities in CADSES in relation to their contributions to the polycentric development at the European level. Within the project the scenarios of the future eventual development. The „Proactive Scenario 2020“ identifies the cities with high potential of cooperation with neighbouring urbanised spaces also in case of cross-border cooperation. This scenario assumes an acceptance of cooperative strategies of near cross-border cities, whose specific function profiles are able to improve an efficiency of the cooperative cities in the framework of the joint cooperation. Among the Slovak cities classified in the cooperative cross-border network belong Bratislava and Trnava (in stabilised network with the Vienna, Brno and Gyor), Košice and Prešov (in the open future network with the Miskolc) and Žilina (in the open future network with the Katowice, Krakow, Bielsko-Biala and



Ostrava). In the meantime, Zlín and Trenčín have been added to the network of cooperative cities and polycentric systems.

Figure 6 Scenario of cooperating MEGA and FUA within the CADSES area



Source: PlaNNet CenSE (Planners Network for Central and South East Europe, 2006)

The following table quantifies the demographic assumptions for engagement of Slovak centres in the cooperative cross-border networks through the transboundary localised transport infrastructure. Abovementioned has to be taken into account in the framework of the assessment of residential aspects relating to the priority projects of the transport infrastructure - SPRDI SR 2020.

Tab. 8 Demographic continuity of assessed SPRDI SR 2020 transport infrastructure beyond borders of Slovakia

Name of region	Population	Population density [inhab. per m <sup>2</sup> ]	transport infrastructure in SR	Neighbouring country	Name of region	Name of region centre	Population	[inhab. per m <sup>2</sup> ]	Distance between centres [km]
Bratislavský kraj	606,537	295	Motorway D4, Railway line No 111	Austria	Vienna, capital	Vienna	1,713,957	4,131	Bratislava -Vienna 79
					Niederösterreich	Sankt Pölten	1,618,592	84	Bratislava -St. Pölten 149
					Burgenland	Eisenstadt	286,691	72	Bratislava - Eisenstadt 73
			Railway line No 132	Hungary	Győr-Moson-Sopron, megye	Győr	448,435	106	Bratislava -Győr 81
Banskobystrický kraj	657,119	70	Expressway R3		Budapest, capital	Budapest	1,733,685	3,301	Banská Bystrica-Budapešť 181
					Pest, megye	Budapest	1,229,880	192	
					Nógrád, megye	Salgótarján	204,917	80	Banská Bystrica-Salgótarján 115
Košický kraj	775,509	115	Expressway R4	Ukraine	Borsod-Abaúj-Zemplén, megye	Miskolc	692,771	95	Košice-Miskolc 87
			Motorway D1		Закарпатська область	Uzhhorod	1,244,895	97	Košice-Uzhhorod 97
Prešovský kraj	817,382	91	Expressway R4	Poland	Województwo Podkarpackie	Rzeszow	2,097,000	117	Prešov-Rzeszow 165
Žilinský kraj	697,502	102	Expressway R3		Województwo małopolskie	Krakow	3,298,270	217	Žilina-Krakow (through Živiec) 165
			Motorway D3		Województwo śląskie	Katowice	4,642,942	392	Žilina-Katowice 156
			Expressway R5, Railway line No 127	Czech Republic	Moravsko-slezský kraj	Ostrava	1,244,837	229	Žilina-Ostrava 112
Trenčiansky kraj	599,859	133	Expressway R6, Railway line No 125		Zlínský kraj	Zlín	590,527	148	Trenčín-Zlín 73
Trnavský kraj	561,525	135	Motorway D2, Railway line No 110		Juhomoravský kraj	Brno	1,166,313	162	Trnava–Brno 145

Source: ER, websites of regions

### Expected development of settlement systems in the cross-border context if the SD would not be implemented

In summary it may be stated that the transport infrastructure itself does not represent the objective but the instrument to relieve the road and to achieve an access to services. To secure that considerable investments in the motorways construction and railways upgrading act as an economic contribution to the affected and connected regions, an existence of the critical quantity of activities with higher added value is necessary. It also includes the production of know-how and goods and provision of services applied in economic transactions at the international level. With a reference to statistic data of the Slovak economic sector it may be stated that, except for developed Bratislava, the regions in north-west Slovakia and the core residential area in Eastern Slovakia (Košice) are at the threshold of the state in which the investments in the construction of capacity transport infrastructure are rational. If

transport infrastructure projects - motorways, expressways and upgrading conventional railway lines extending Slovakia borders and continuing abroad as the adequate transport infrastructure - connecting the Slovak settlement core areas with a polycentric systems of an European and international importance would not be implemented, the Slovak Republic shall be put out of European trend of a cross-border regional cohesion.

## 1.2 Public health

### Objectives

- *To reduce the noise pollution effect on population*
- *To reduce the level of air pollution in residential areas*
- *To improve the safety of transport*

### Noise

#### Background and trends

Traffic noise is a considerable risk factor affecting quality of life and public health. The noise from transport affects especially areas in the vicinity of exposed transport routes. Based on the healthcare knowledge, the noise level of 65 dB(A) represents a limit, from which a vegetative nervous system is being adversely affected.

On the 1 January 2007 the Decree of Ministry of Health of the Slovak Republic (hereinafter referred to as the "MZ SR") No. 549/2007 Coll. establishing details on permissible noise values and requirements for objectification of noise in environment, entered into force. The text of the Decree 549/2007 has been amended by the Decree of MZ SR No. 237/2009 Coll. as follows: "Not exceeding permissible noise values shall be considered as sufficient providing for the public health protection according to current status of knowledge and economical level of society."

Slovak legislation established an obligation to elaborate strategic noise maps for agglomerations with more than 250 000 inhabitants. Outside agglomerations, it was necessary to elaborate maps for territories surrounded by motorways, expressways and I. class roads with more than 6 million passages of vehicles per year. Regulation of the Governments No. 258/2008 Coll. establishes, that the Member States have to ensure strategic noise maps for larger railway lines with more than 60 thousands passages of trains per year and for airports with more than 50 thousands take offs and landings per year.

On the basis of strategic noise maps elaborated for area of approx. 1 435 km<sup>2</sup> it has been determined that, out of total 480 600 inhabitants exposed to traffic noise on the I. class roads and motorways outside of Bratislava agglomeration, 193 100 inhabitants live in houses and apartments situated in the territory where the action value of indicator  $L_{dvn} = 60$  dB has been exceeded. In the Bratislava agglomeration, 268 400 inhabitants out of the total number of 546 300 inhabitants live in houses and apartments situated in the territory where the action value of indicator  $L_{dvn} = 60$  dB is exceeded due to traffic on roads and motorways, 125 300 inhabitants live in such a territory due to traffic on railways and approx. 500 inhabitants due to traffic on the Bratislava M. R. Štefánik Airport.

Within the preparation of projects of the new transport infrastructure, requirements to ensure acoustic protection of the territory are observed. A part of project documentation are noise studies that provide for a need and parameters for constructions of noise protection walls, or other noise protection measures for the purpose of minimising the noise burden for exposed population. The length of noise barriers built in 2010 in the area of road transport was 13 749 m and in the area of railway transport it was 8 517 m.

#### Expected development if the SD would not be implemented

A failure to implement SD measures would mean that the benefit of potential of noise situation in our settlements that are currently over-burdened also by transit freight transport was not be used. Due to increasing traffic intensity the situation will further deteriorate.

### Air pollution

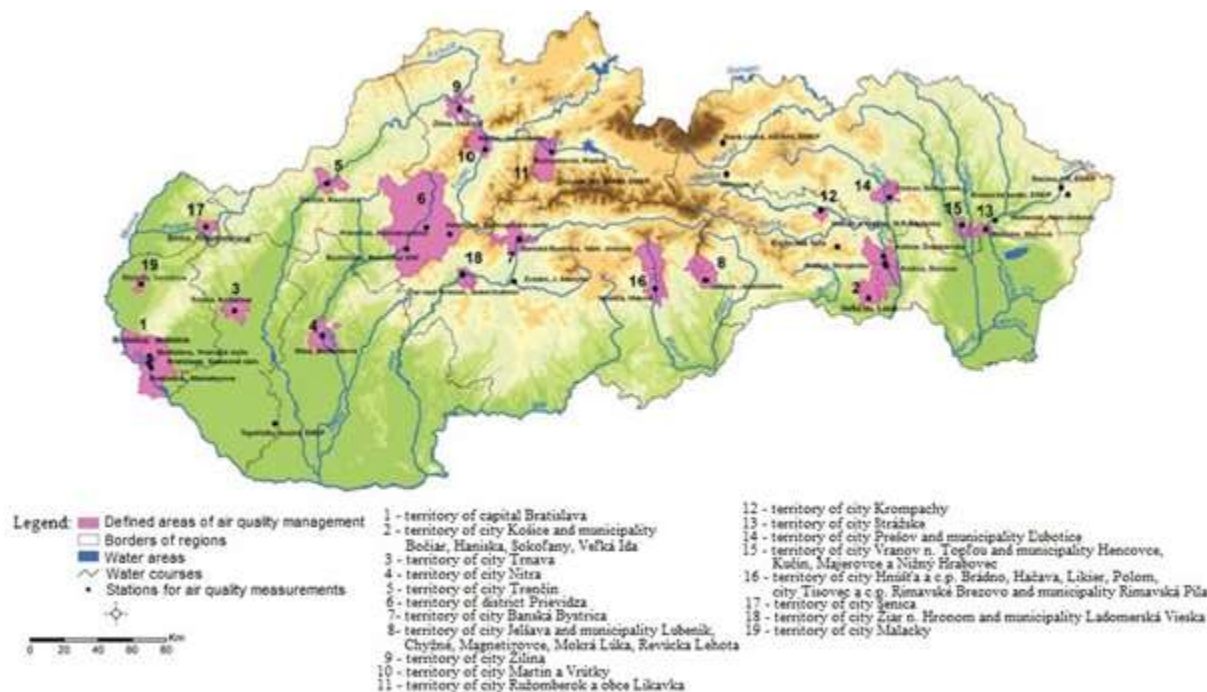
#### Background and trends

The quality of air is generally determined by the content of pollutants in open air. Criteria of air quality are provided in notified Decree of MPŽPRR SR No 360/2010 Coll. on air quality. The basic starting point for air quality assessment in Slovakia are results of measurements of pollutant concentrations in the air performed SHMÚ in stations of National network of monitoring of air quality.

Nitrogen oxides and particulate pollutants, more precisely their part expressed as suspended substances  $PM_{10}$  and  $PM_{2.5}$  are considered the most important pollutants caused by transport in respect of population health. Of importance is also generation of carbon oxides and polycyclic aromatic hydrocarbons. Impact of transport on production of sulphur dioxide ( $SO_2$ ) and lead emissions is currently not considered of a particular importance.

Based on the results of 2010 assessment and in accordance with requirements of Act No 137/2010 Coll. on air as amended by later regulations, SHMÚ proposed 19 areas of air quality management in 8 zones and 2 agglomerations for 2011. Defined areas have an area of 2 932 km<sup>2</sup>. In 2011, the population of this territory was 1 469 072, which is 27% total population number of Slovak Republic. Out of the 19 areas of air quality management, there were 14 areas designated for  $PM_{10}$ , 1 area for  $PM_{10}$  and  $NO_2$ , and 4 areas for  $PM_{10}$  and  $PM_{2.5}$ .

Figure 7 Areas of air quality management in 2011



Source: SHMÚ

Based on report 'Evaluation of air quality in Slovak Republic 2011' (SHMÚ, 2012), the number of zones in 2012 was reduced to 18 – zone with area of 50 km<sup>2</sup> and 20 689 inhabitants in the city Žiar nad Hronom and municipality Ladomerská Vieska has been repealed.

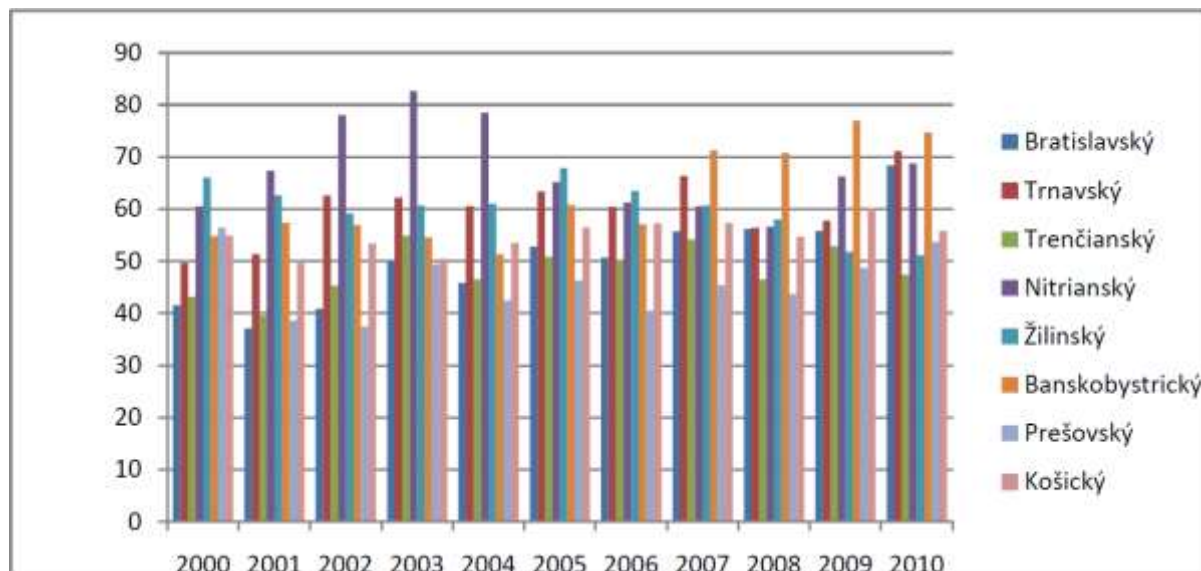
Having regard to the fact that the population is exposed to combination of pollutants from different sources, it is relatively difficult to evaluate the direct impact of air pollution caused by traffic on public health. Locations of residential objects in vicinity of main road routes and main junctions are considered as the most risk. Situation concerning the air quality assessment in the period of 2009 - 2011 may be characterised as stabilised with a tendency to slightly improve.

As it results from the abovementioned definition of air quality management area, the problem of these areas lies in particular in increased concentrations of suspended substances. Particulate matters generated by traffic are caused by fuel consumption (especially petrol), abrading of tyres, brake and clutch linings, surface of roads, etc. Increased  $PM_{10}$  concentrations in the air have an adverse impact on the health of populations and they contribute to emergence of respiratory system diseases as well as allergies. Therefore the most sensitive groups are asthma patients, people with cardiovascular and chronic lungs diseases, children, and elderly people.



The air quality represents a significant element causing respiratory diseases. Specific mortality resulting from respiratory diseases is shown in the following picture. However, it is not possible to determinate a direct connection, as e. g. in Bratislava region, which is characterised by the highest traffic intensity, population mortality due to respiratory diseases in the 2005-2010 period was one of the lowest.

Graph 1 Specific mortality due to respiratory diseases per 100 000 inhabitants by Slovak regions



Source: NCZI made by: ÚVZ SR 2012

#### *Expected development if the SD would not be implemented*

In case of the zero variant, it is possible to assume negative development in respect of public health. There is a realistic assumption that a failure to implement strategic objectives of the development of the public passenger transport, upgrading and development of railway and intermodal transport infrastructure and the development of non-motorised transport will result in highly inadequate conditions for change of trend of the modal split in favour of more environmentally friendly transport modes.

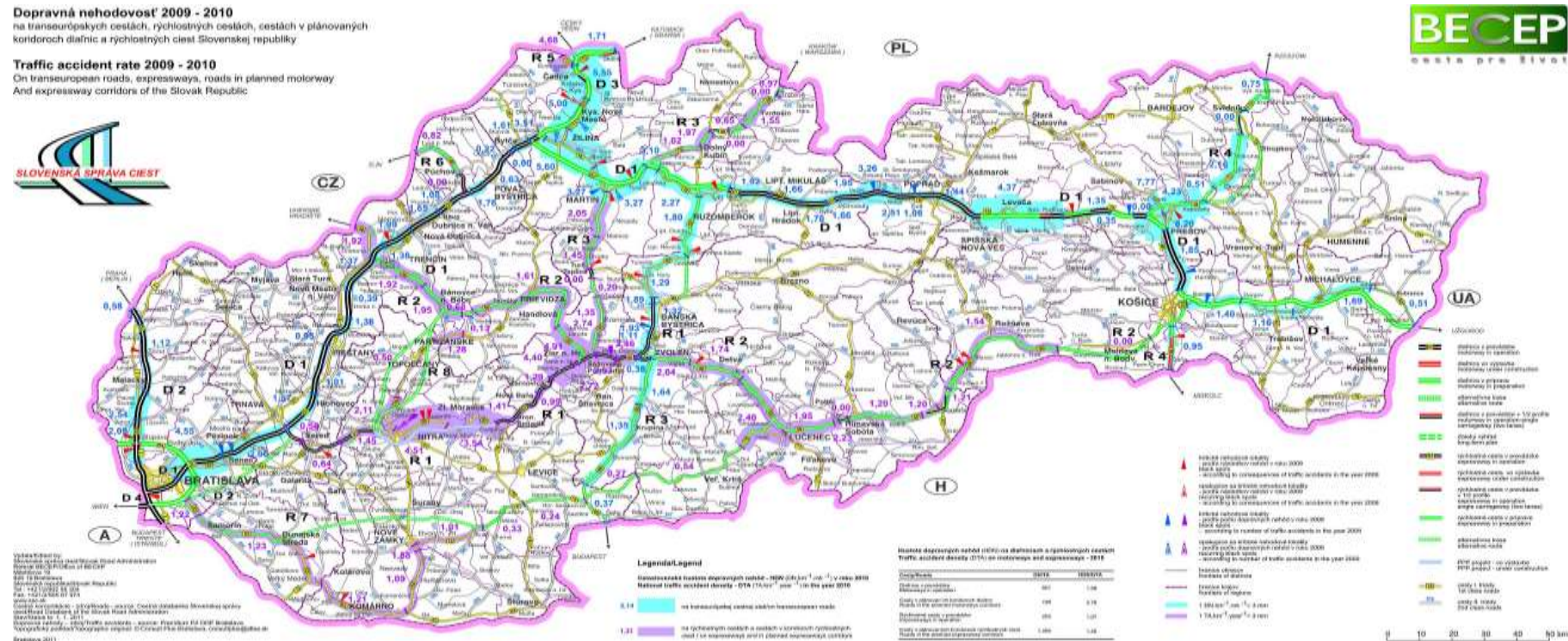
#### *Traffic accident rate*

#### *Background and trends*

Figure 8 Traffic accident rate 2009-2010

**Dopravná nehodovosť 2009 - 2010**  
na transeurópskych cestách, rýchlostných cestách, cestách v plánovaných  
koridoroch diaľnic a rýchlostných ciest Slovenskej republiky

**Traffic accident rate 2009 - 2010**  
On transeuropean roads, expressways, roads in planned motorway  
And expressway corridors of the Slovak Republic



Source: www.ssc.sk

Traffic accidents rank among direct impacts immediately affecting the human health condition. On the one hand, they are influenced by human factor (road users), on the other hand, by technical condition of road vehicles and road network (quality, density). Highest percentage of accidents is caused by human factor. As for the development of accidents in Slovakia, the 2000-2010 period is characterised in particular by the increase of motorisation, which significantly influences the development of traffic safety situation. From 2009 there have been significantly less traffic accidents. In 2009 there were 25 987 traffic accidents, which means a significant 55.9% decrease compared to 2008. In 2010 there were 21 611 traffic accidents, a 16.8% decrease from 2009. On the one hand, the positive trend of accident numbers is artificially caused by amendments of regulations on reporting of traffic accidents, on the other hand, however, it is a result of a continual construction and upgrading of infrastructure of motorways, expressways and I. class roads, along with gradual removal of critical 'black spots' in the road infrastructure.

Tab. 9 Development of traffic accidents in road transport

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total number of accidents</b>	<b>50,932</b>	<b>57,258</b>	<b>57,060</b>	<b>60,304</b>	<b>61,233</b>	<b>59,991</b>	<b>62,040</b>	<b>61,071</b>	<b>59,008</b>	<b>25,989</b>	<b>21,611</b>	<b>15,001</b>
<b>Fatalities</b>	628	614	610	645	603	560	579	627	558	347	345	324
<b>Seriously injured persons</b>	2,204	2,367	2,213	2,163	2,157	1,974	2,032	2,036	1,806	1,408	1,207	1,168
<b>Slightly injured persons</b>	7,890	8,472	8,050	9,158	9,033	8,516	8,660	9,274	9,234	7,126	6,943	5,889

Source: MDVRR SR and calculations of VÚD, Inc.

Detailed description of the traffic accident development and situation within the corridors of prepared motorways and expressways is presented in Annex 2.

In the railway transport the number of accidents is significantly lower than in the road transport, where as much as 84 accidents were recorded in this mode of transport in 2011 and 85 of them in 2010. Regarding airway transport, there were 5 fatalities and 10 injured in 26 accidents in 2010.

#### *Expected development if the SD would not be implemented*

The assessment of the traffic accident indicator shows, in particular in road transport, a direct, negative and permanent impact on the health in case the implementation of infrastructural measures of OPII fails (continuing growth trend in individual car transport with the cumulation in cities and towns).

## 1.3 Air quality and climatic factors

### *Objectives*

- *To reduce the production of emissions from transport*
- *To reduce the production of greenhouse gas emissions*

### *Transport emissions*

#### *Background and trends*

Compared to 1990 there has been a 41% decrease in total emissions and carbon intensity to half, which ranks Slovakia among the best in Europe. Such decrease was achieved by a natural change in economy structure and by changes in the fuel mix. After 2000 the rate of decrease has slowed down.

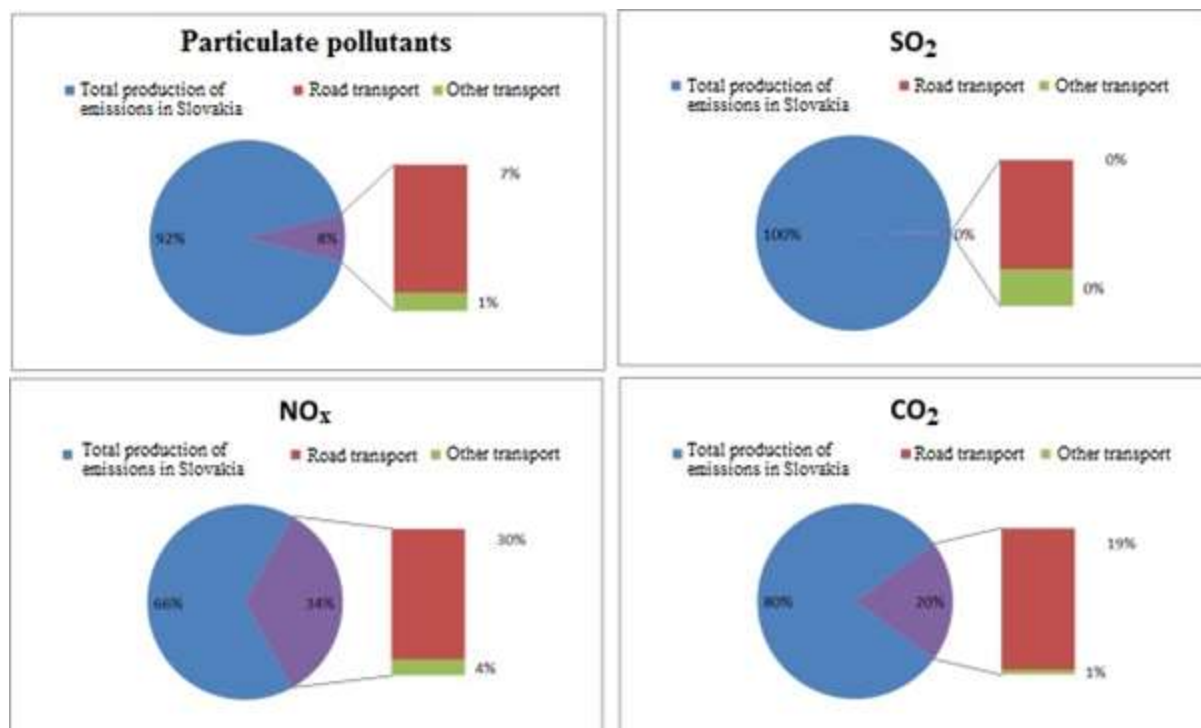
Adverse impacts of individual modes of transport are closely connected with realised transport performances and related consumption of the fuel. Transport operation has an adverse effect on air due to the combustion of hydrocarbon fuels in combustion engines of transport means, where the generation of pollutants (CO, NO<sub>x</sub>, VOC, SO<sub>2</sub>, PM), including the production of greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O) emerges.

Tab. 10 Production of total emissions of selected pollutants from transport (in thousand tonnes)

Substance	2005	2006	2007	2008	2009	2010	2011
CO	108.7	88.4	85.4	63.5	56.3	49.3	47.5
CO <sub>2</sub>	6,394.9	5,964.0	6,839.0	6,959.8	6,436.2	6,997.7	7,328.9
NO <sub>x</sub>	41.8	45.8	35.6	48.3	42.2	45.5	46.8
VOC	20.1	12.9	16.8	14.7	8.7	7.8	7.2
SO <sub>2</sub>	0.21	0.22	0.25	0.26	0.24	0.25	0.24
PM <sub>10</sub>	-	-	-	-	-	2.2	2.1
PM <sub>2,5</sub>	-	-	-	-	-	-	1.8

The transport share in emissions of particular pollutants is shown in the following figure:

Graph 2 Emissions of core pollutants - division based on the source for 2010



Within the transport, the road transport contributes to the air pollution in the greatest extent. Most significant pollutants are CO (carbon monoxide) with 97.38%, and CO<sub>2</sub> (carbon dioxide) with 96.32%. Other transport modes (railway, inland waterway and air transport) have only a small share in production of total volume of pollutants. In particular travelling by car and road freight transport are responsible for the extent of production of pollutant emissions in the road transport. This is one of the reasons why the questions of a need to improve the public and non-motorised transport are discussed so often.

Tab. 11 Total emissions from transport operation in 2011 by transport modes (in thousand tonnes)

	CO	CO <sub>2</sub>	NO <sub>x</sub>	VOC	SO <sub>2</sub>	TPM	PM <sub>10</sub>	PM <sub>2,5</sub>
Road transport	46.282	7,059.182	42.772	6.754	0.222	1.29	1.954	1.642
Railway transport	0.284	83.463	1.393	0.128	0.00	0.040	0.038	0.036
Inland waterway transport	0.509	149.338	2.492	0.23	0.005	0.072	0.068	0.065
Air transport	0.45	36.889	0.101	0.065	0.009	0.008	0.008	0.008
Transport sector in total	47.525	7,328.872	46.758	7.177	0.236	1.41	2.068	1.751

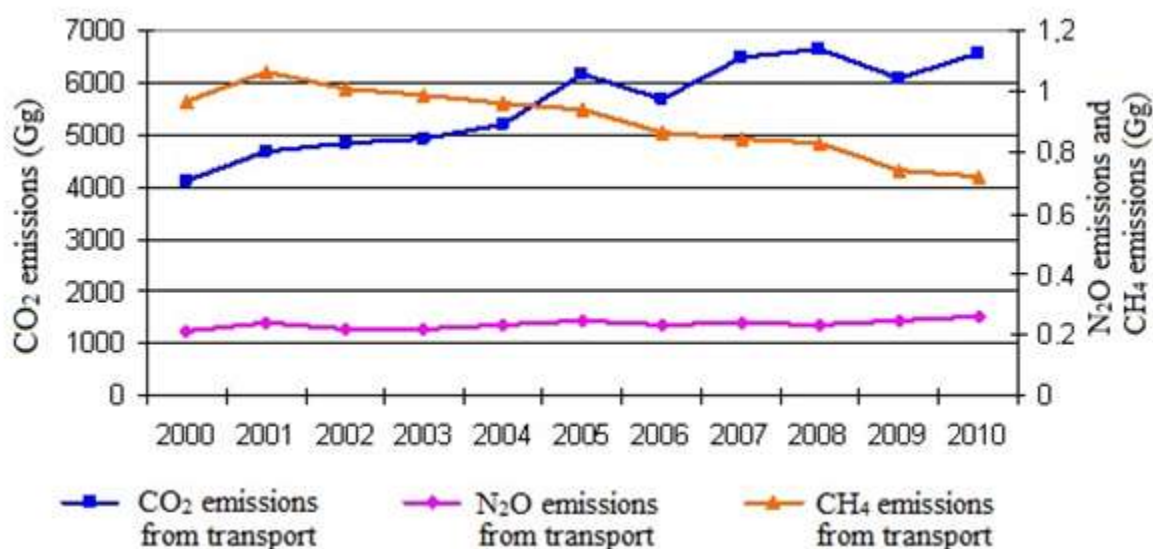
Source: VÚD Inc., Žilina



With regard to global warming problem, specific issue is the production of greenhouse gases. One of the objectives of Europe 2020 strategy is to reduce emissions of greenhouse gases by at least 20% by 2020 compared to 1990 levels.

In Slovakia, share of transport in total emissions of greenhouse gas is currently approximately 14%. Trends in transport greenhouse gases development are alarming, especially with regard to CO<sub>2</sub> production which constitutes the core component in greenhouse gas composition.

Graph 3 Greenhouse gas emissions from transport



Source: SHMÚ, Processed by: SAŽP, SEA

#### *Expected development if the SD would not be implemented*

In case that the infrastructure measures defined by SDI would not have been implemented, it is likely to assume the increase in emissions related to the growth of road transport performance as well as occurrence of congestions in bottlenecks of infrastructure. As well as there will not be favourable conditions for change of trend in modal split in favour of more environmentally friendly transport modes. Such negative trend will be apparent and intensively acting in residential areas of cities.

In general, in spite of abovementioned negative trend, however an improvement of the air quality may be expected in Slovakia namely with regard to the fulfilment of objectives of the Europe 2020 strategy within the concept of low-carbon economy, which are obligatory for the Slovak Republic. Major industry resources have a considerable potential for reduction of emissions, including greenhouse gases emissions, where a significant emission decrease will expect in the context of transposition of the Directive 2010/75/EU on industrial emissions.

## 1.4 Soil and rock environment

### *Objectives:*

- *To minimise agricultural and forest land take*
- *To prevent risks with regard to slope deformations*

### *Agricultural and forest fund*

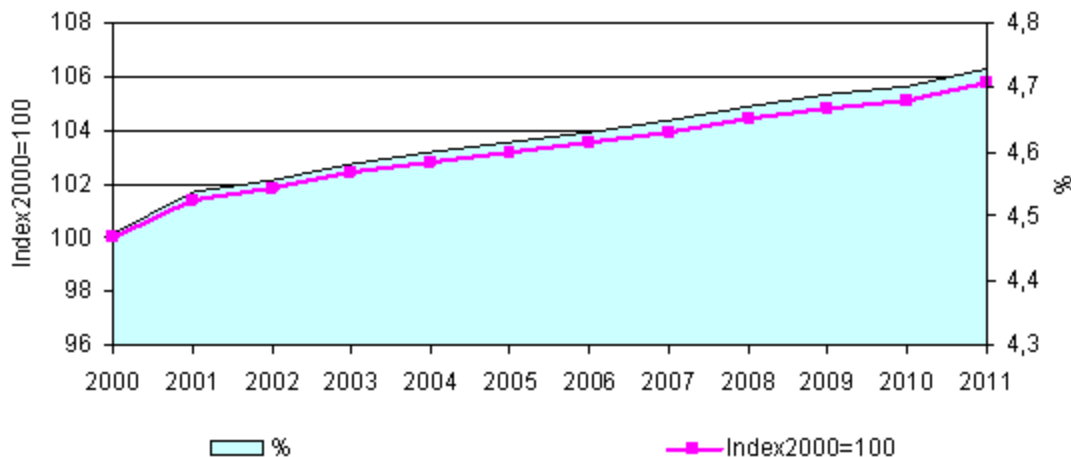
#### *Background and trends*

Within the implementation of projects of transport infrastructure the key impact on land is a permanent agricultural and forest land take. When taking and protecting the agricultural land, it is necessary to proceed in accordance with the Act No. of the 220/2004 Coll. on protection and use of agricultural land, as amended by later regulations.

Within the transformation of national economy a switching of land is quite common, especially between agricultural and forest land fund, but also between other land types. There has been an increase in built-up areas (by 14.% from 1996) affected not only by demographic trends and transformation of economy, but also by an intensive construction of industrial parks and community amenities demanding the land areas.

Built-up area increase of 5.8% has been recorded since 2000. Currently, built-up area represents 4.7% of area of Slovak Republic, i.e. 231 967 ha with most of such areas situated in Bratislava region (7.9%) and Trnava region (6.95%).

Graph 4 Development of the area of built-up areas (Index 2000=100%)



Source: ÚGKK; Compiled by: SAŽP

With regard to further construction of transport infrastructure, the abovementioned trend is likely to continue. Construction of transport infrastructure, in particular the road transport followed by railway transport contributes to land take. In 2008 the increment of area of land take by transport infrastructure has achieved 394.9867 ha, i.e. 1.51%. Development of transport and in particular road transport infrastructure makes the territory more attractive and thus induces secondary impacts resulting in emergence of new areas with trade, services, and production functions, which can be seen especially in vicinity of motorways and expressways interchanges.

#### **Expected development if the SD would not be implemented**

If the infrastructure measures defined by the SD would not be implemented, neither permanent nor temporary take of land for particular constructions, nor the above mentioned secondary take would occur.

#### **Risks of slope deformations**

##### **Background and trends**

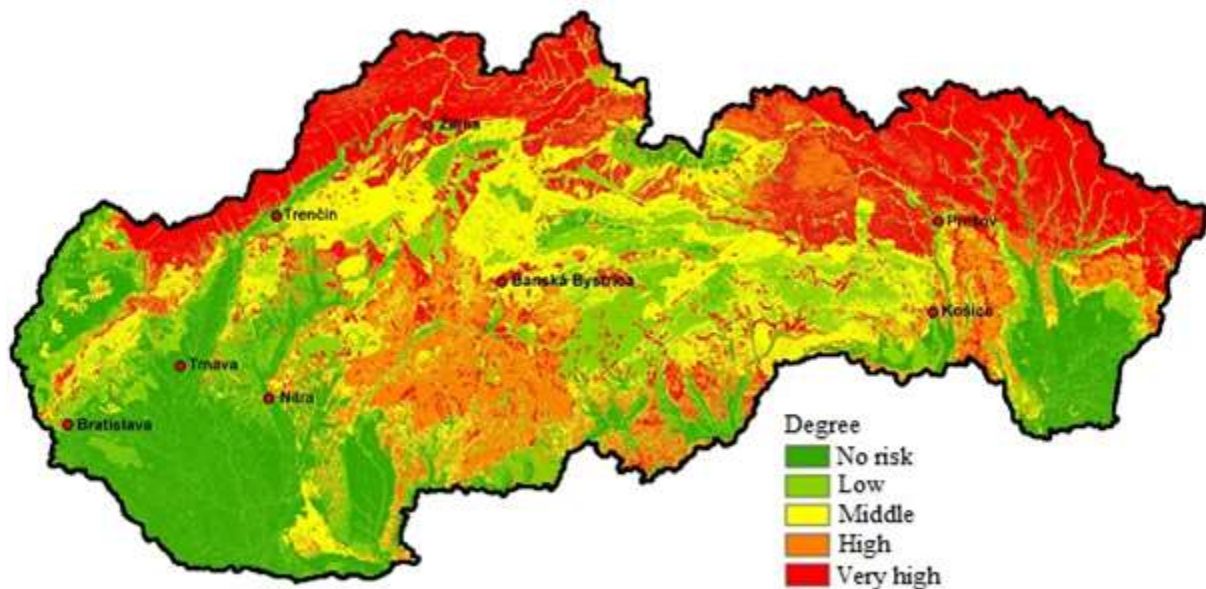
With regards to soil and rock environment, the stability is a special issue. Slope movements are the most significant geodynamic events endangering the transport infrastructure and the main factors when building new sections of road and railway infrastructure. In Slovakia, landslides may occur in particular in the areas built by flysch formations of Cretaceous and Paleogene and fine grained sediments of Neogene, including volcanic Neogene formations (Figure 9).

According to Atlas of maps of slope stability in Slovak Republic (ŠGÚDŠ) there are 21 190 slope deformations in Slovakia. They disrupt territory of 257.5 thousands ha, which is 5.25% of Slovakia. Most of the slope deformations are landslides, of which 19 104 were registered and they represent 90.2% of all registered slope deformations. Landslides threaten 98.8 km of motorways and I. class roads, 571 km of secondary and tertiary roads as well as 62 km of railways<sup>17</sup>.

<sup>17</sup> Jánová - Liščák, MŽP SR 2011



Figure 9 Map of landslide risk in the Slovak Republic territory



Source: Concept of geological research and exploration in the territory of Slovak Republic for 2012 - 2016 (with prognosis by 2020)

#### *Expected development if the SD would not be implemented*

Part of the construction of new transport infrastructure and its upgrading is the implementation of measures to prevent risks of landslides and other geodynamic phenomena eventually their recovery. Non fulfilment of this objective shall mean that the risk for existing transport infrastructure constructions would remain with possible damages on the property and health damages.

## 1.5 Water

### *Objectives*

- *To prevent deterioration of the environmental and chemical status of waters*
- *To limit impact on protected water management areas*
- *To prevent deterioration of run-off conditions of the territory*

The issue of water has a horizontal interconnection with more environmental and health areas. In addition to water sources themselves, the areas in question are as follows: protection of their quality and quantity, water in relation to biodiversity and land protection, issue of floods, water use for recreation, mineral and thermal waters, etc. In assessing particular projects it is necessary to consider all mentioned aspects.

Within the strategic assessment of SPRDI SR 2020, as the key aspects relating to the transport, following have been considered:

- Preservation of quality and quantity of surface and ground waters;
- Ensuring protection of water supply sources;
- Protection against floods.

### *Status of surface and ground waters*

#### *Background and trends*

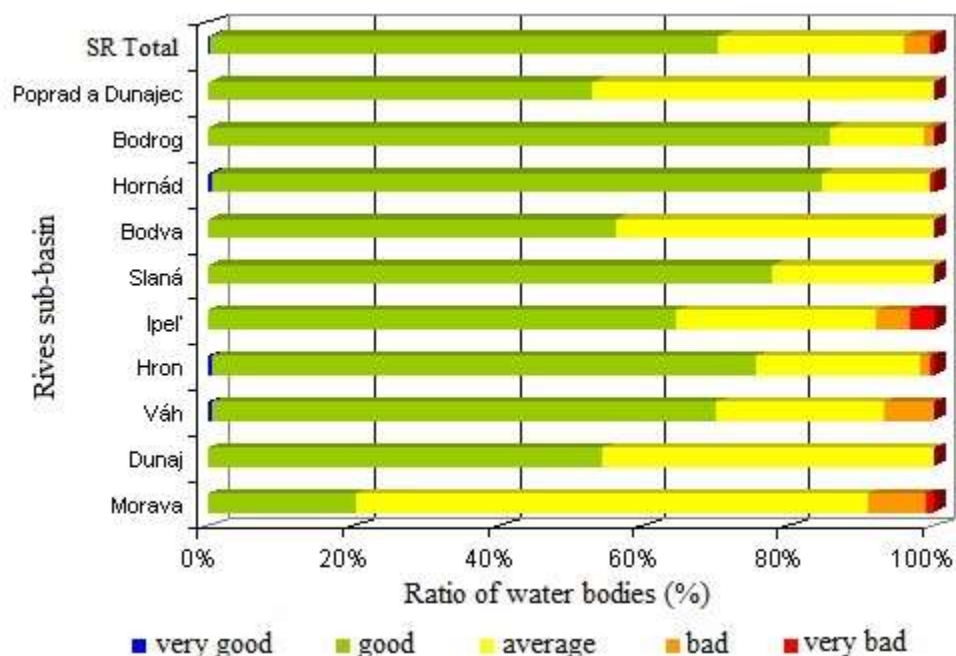
Water policy applied currently in Slovak Republic is based on Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive - WFD) transposed into the Act No 364/2004 Coll. on water (Water Act).

In general, it may be stated that the primary objective of the WFD is to achieve "good water status" by the year 2015. Analyses of status of water bodies carried out in 2005 showed that 48% of bodies of

surface waters and 23% of bodies of groundwater in Slovak Republic are in risk of not achieving this goal.

Assessment of the status of surface waters within the meaning of Water Framework Directive consists of evaluation of ecological and chemical status (more precisely potential).

Graph 5 Ecological status of surface water bodies



Source: VÚVH, SAŽP, 2013

Assessment of ecological status of surface water bodies in 2010 has been carried out in 1 648 of water bodies, which were defined as natural. Out of the total number of water bodies, 70.51% of them were in a very good and good ecological status. Relatively a large number of water bodies (418) was in an average status (25.36%) and 4.13% out of total number of water bodies (68) was in bad or very bad status. The assessment has shown that from ecological perspective the best situation is in the sub-basins of Bodrog, Hornád, Slaná, Hron and Váh rivers.

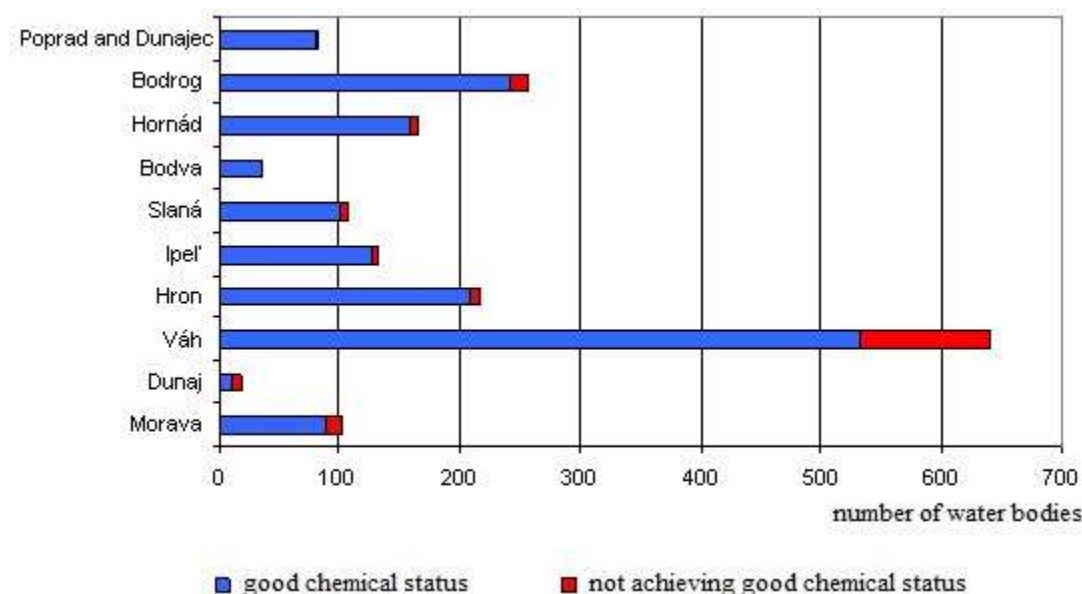
In river basin district of Danube, 1 117 water bodies were in a very good and good status and 448 in an average and worse status, while in basin district of the Visla river, 44 of water bodies were in a very good and good status and 39 of them were in an average and worse ecological status.

Assessment of chemical state of surface water bodies in the period by the year 2010 has been carried out in 1 760 of water bodies. They consist of 1 737 water bodies delimited by Slovak rivers and 23 water reservoirs. Based on the results of the assessment it may be stated that a good chemical status has been achieved by 1 584 (90%) of water bodies in Slovakia. On the other had 176 (10% of total number) of surface water bodies do not achieve a good chemical status.

The largest proportion of water bodies with good chemical state compared to total water bodies in river basin is in the river basin of Dunajec and Poprad rivers, which, in absolute terms, is the basin of the Váh river. In basin district of Danube river there were 10.38% of water bodies, which did not have a good chemical state, whereas in the basin of the Dunajec and Poprad rivers it was merely 2.41% of water bodies.

A failure to achieve a good chemical status was caused by specific synthetic substances in case of 112 water bodies, by specific non-synthetic priority substances in case of 44 water bodies and the environmental quality standards were exceeded due by both groups in case of 7 water bodies.

Graph 6 Chemical status of surface water bodies



Source: VÚVH, SAŽP, 2013

Good status of surface body waters means a good quantitative status of ground waters and simultaneously a good chemical status of surface waters. An assessment of groundwater status consists of the assessment of quantitative and chemical status of groundwater bodies.

When assessing qualitative status of Quaternary and Pre-quaternary groundwater bodies for 2007, status of 5 out of total 75 groundwater bodies (16 Quaternary groundwater bodies and 59 Pre-quaternary groundwater bodies) was classified as bad. State of 82.7% groundwater bodies was classified as good, which represents 76.4% of total area of the bodies. Bad status concerns, in particular, Quaternary alluvium of basins of the Váh, Nitra, Hron, Ipel', Slaná, Rimava, Bodva and Hornád rivers. The main pollutants are the following: sulphates, chlorides, nitrates, ammonia, pesticides, trichloethylene and tetrachlorethylene. One of the sources of chlorides is the maintenance of surfaces of the roads.

The transport and transport infrastructure shall not be considered as the key issues with regard to the impact on quality and quantity of water, or respectively, the risk for their good status. This is in general attributed to agglomerations, industry and agriculture. pollution of ground waters.

With regard to Water Framework Directive the following water issues have been identified:

- organic pollution of surface waters,
- pollution of surface waters by nutrients, risk of eutrophication,
- pollution of surface waters by priority substances relevant for Slovak Republic,
- hydromorphological changes of water courses.
- deteriorated quantitative status of ground waters
- pollution of ground waters.

Having regard to the inland waterway transport projects, the transport infrastructure is connected in particular to the issue of hydromorphological changes in water bodies.

#### *Expected development if the SD would not be implemented*

Plans of basin management and programmes of measures intended to achieve requirements of WFD are the administrative instrument for solution of significant water problems. It is possible to assume that thanks to their implementation in the future, the status of water bodies will be improved. A failure to implement the strategic document however, will not significantly influence this status, as transport, from perspective of impact on quality and quantity of water, is not a dominant aspect.

## Protection of water supply sources

### Background and trends

One of the specified environmental objectives within the assessment of the strategic document is to minimize a collision with significant water areas and to ensure their safety.

Areas of water protection are described in detail in the chapter III.2.3.

### Expected development if the SD would not be implemented

A failure to implement the SD measures would mean the preservation of status quo situation with regard to the interference with existing water areas. In terms of qualitative protection, there is however risk of emergency pollution of water due to non-secured sections of roads crossing these areas. A construction of modern infrastructure reduces this risk.

## Climate change impacts and flood risks

### Background and trends

One of the adverse impact of climate change is an increasing risk of floods. In the territory of Slovak Republic there were 559 areas associated with a significant flood risk - 378 geographical areas, in which there is a potentially significant risk of flood and 181 geographical areas, in which a significant flood risk may be assumed.

Each year floods cause a great damage to property of the State and health of the population. In the 2005-2011 floods in Slovakia caused total damage and costs of 710.3 million EUR.

Tab. 12 Flood consequences in period 2005-2011

Year	Number of settlements affected by floods	Flooded territories (ha)	Damages caused by floods (mil. EUR)	Costs (mil. EUR)		Total costs and damages (mil. EUR)
				Rescue works	Security works	
2005	237	9,237	24.03	2.24	2.67	28.94
2006	512	30,730	47.90	5.98	6.42	60.30
2007	60	339	2.49	0.30	0.21	3.00
2008	188	3,570	39.75	3.59	2.51	45.85
2009	165	6,867	8.41	1.59	1.30	11.30
2010	1,100	103,006	480.85	17.93	27.53	526.31
2011	87	3,076	20.01	2.00	12.58	34.59

Source: MP SR, MŽP SR, VÚVH

One of the reasons of flood risk increase is also a storage capacity decrease in the territory due to construction of stabilised surfaces followed by draining of the water from surface directly into recipients. The area of transport infrastructure represents in terms of global significance an important component, to which shall be paid a due attention when creating flood protection management.

### Expected development if the SD would not be implemented

In case that the projects defined by the strategy would not be implemented, solving the flood protection of area will be in accordance with plans of flood risk management to achieve the most elimination of the risk in the context of taking the measures of reduction both the likelihood of floods as well as the potentially adverse impacts of floods on human health, environment, cultural heritage and economic activities.

## 1.6 Nature and landscape protection

### Objectives

- To prevent biodiversity degradation
- To minimise interferences with protected areas and NATURA 2000 sites
- To maintain ecological stability of landscape

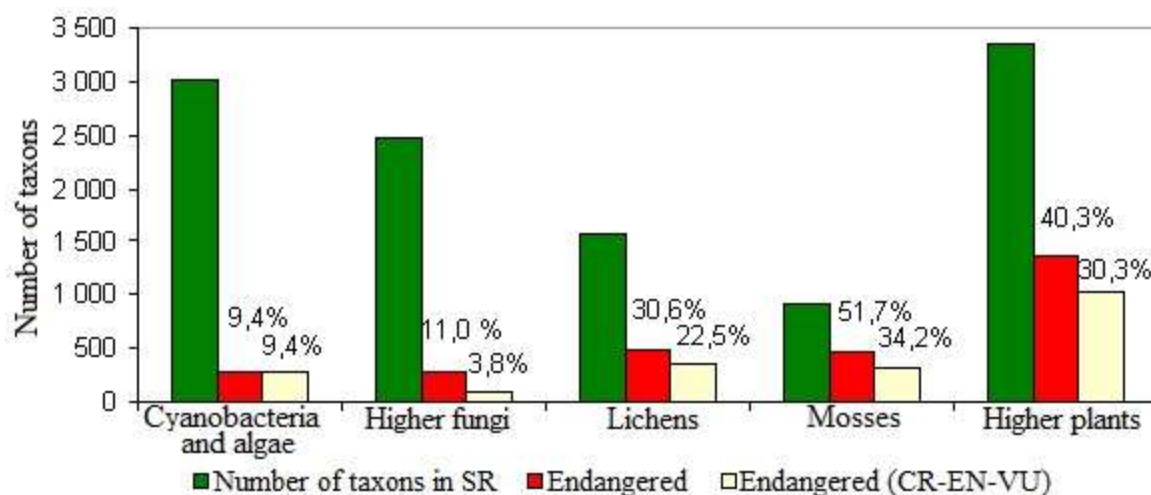
## Biodiversity

### Background and trends

Overall status, trends and biodiversity endangerment is characterised in detail by "Forth national report on implementation of Convention on Biological Diversity in Slovak Republic" (2009).

High biodiversity is a result of specific habitat conditions as well as human activities. Up to the present, 11 270 plant species (including algae) have been described in Slovakia. As a result of intensive use of natural resources, large number of plant species are extinct, some of them became rare, others endangered. Regional and local red lists are significant source of information specifying knowledge of endangerment of plant taxons from national perspective. Currently, there are 1 270 taxons (1 009 in 1992) recorded in the red list of higher plants, of which 77 species (32 species in 1992) are classified as extinct and 220 species as endemics.

Graph 7 Number of plant taxa and their endangerment (number, %)



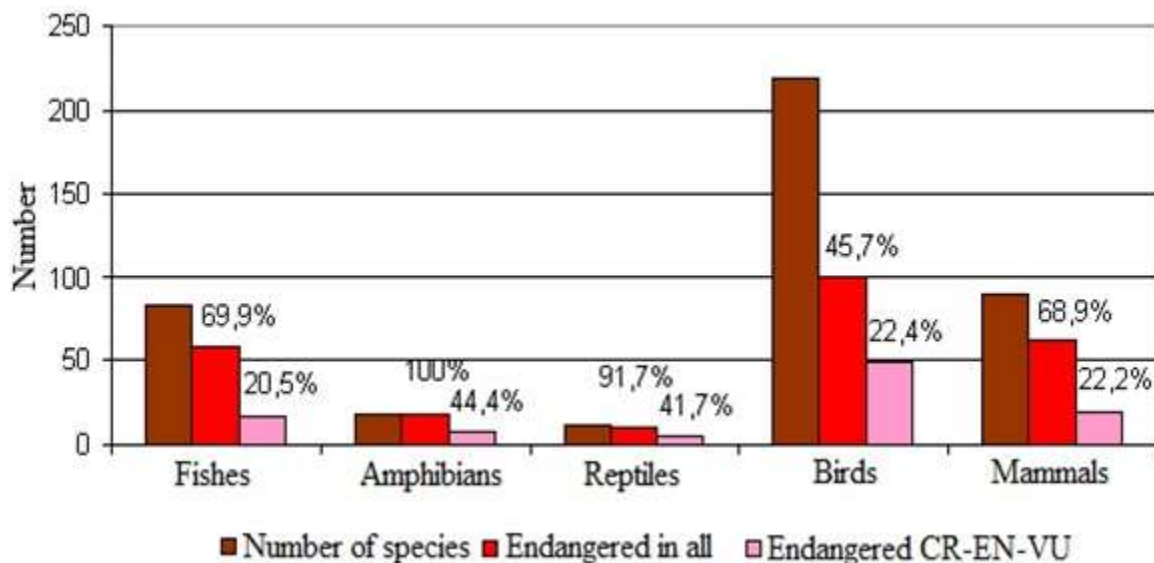
Source: ŠOP SR; Compiled by: SAŽP, 2013 (<http://www1.enviroportal.sk/indikatory>)

In Slovak republic, more than a third of the indigenous plant species is endangered to some degree. The most critically endangered species of Slovakia's flora are from habitats globally endangered in whole Central Europe (peat lands, wetlands, flooded meadows, marshes, sands). Number of species sensitive to eutrophication of water courses and reservoirs gradually decrease as well. The core cause of plant endangerment is a direct (transformation of ecosystems, construction, mineral-extracting) or indirect (e.g. pollution, changes in the hydrological regime) destruction of these habitats.

In Slovakia, more than 28 800 animal species (including invertebrates) have been described up to the present and the grade of their endangerment is becoming more and more significant. The alarming status concerns especially vertebrates which fall under individual stages of endangerment. With regard to each animal species, the priority requirement lies in securing protection of their biotopes what shall mean the sufficient large and preserved territories in which they can naturally live and reproduce.



Graph 8 Number of vertebrate species and their endangerment (number, %)



Source: ŠOP SR; Compiled by: SAŽP, 2013 (<http://www1.enviroportal.sk/indikatory>)

The gene pool change of indigenous fauna and flora species is mainly characterised by the fragmentation and change of habitats induced by line transport corridors.

The most endangered habitats in Slovakia are inland saline soils and salt meadows, Carpathian travertine salt meadows, inland Pannonian sand dunes, Alpine and subalpine grasslands, semi-natural dry grasslands and scrubland facies on limestones with species of Orchidaceae family, active peat land, transition mires and quaking bogs, *Cladium mariscus* and species of *Caricoin davallianae* family, petrifying springs. From the transport infrastructure point of view, hydrological change sensitive wetland habitats are at the greatest risk.

#### **Factors with adverse impact on biodiversity**

Only 17% of biotopes and species protected in the meaning of national and EU legislative is in a favourable condition. On the other hand, the state of 65% of biotopes and 52% of monitored species can be classified as unfavourable.

Degradation and loss of biodiversity has significant environmental, economic and social consequences. Human activities in the land, including the transport, result in a simultaneous degradation and endangerment of biota and biodiversity. Among consequences of the construction of new transport corridors belong e.g. the fragmentation of landscape, loss of habitats, decreasing of ecological stability degree, spread of non-indigenous flora species, degradation of biota as a result of air and water pollution, breach of migration routes.

Fragmentation of land is caused in particular by line constructions creating barriers for migrating animals and introducing a foreign element into the environment. The structure itself is often the very cause of their death (road and railway transport, electric power line). Fragmentation of land is connected to degradation of gene pool of isolated populations and increase in ecosystems vulnerability, which in a very insensitive manner affects the total biodiversity.

Invasive species pose a significant threat for biodiversity in Slovakia. Currently, there are 126 invasive plant species (28 invasive neophytes, 19 invasive archeophytes and 79 potentially invasive neophytes whose behaviour is invasive) registered in the territory of Slovakia. The most aggressive non indigenous plant species are as follows: *Heracleum mantegazzianum*, *Fallopia japonica*, *Fallopia bohemica*, *Fallopia sachalinensis*, *Impatiens glandulifera*, *Solidago canadensis* L. and *Solidago gigantea*. Their spreading is registered especially in transport corridors.

#### **Expected development if the SD would not be implemented**

In case the activities of SPRDI SR 2020 would not be implemented, certain plant and animal species as well as biotopes would not be affected. It is however necessary to emphasise that decreasing the accessibility of regions, the high biodiversity in biotopes that are bound to extensive management is



endangered by abandonment and gradual overgrown, which directly endangers the species bound to this territory.

### *Landscape protection*

#### *Background and trends*

#### **National network of protected areas**

National network of protected areas is defined within the meaning of the Act No. 543/2002 Coll. on nature and landscape protection which defines protected areas in a degree of protection from 2 to 5 in 7 categories (national park, protected landscape area, nature reserve, natural monument, protected site, protected landscape element and special protection areas).

Currently, in the context of the new Act on nature and landscape protection and of establishing NATURA 2000 system, re-assessment of the network of protection areas is underway.

National network of protected areas is described in detail in the chapter III.2.2.

#### **Natura 2000 - European network of Special Areas of Conservation**

Natura 2000 network consists of two area types:

On the basis of the Directive on the conservation of wild birds so called **Special Protection Areas** (hereinafter referred to in as the "SPA") are designated to protect the bird species referred in the mentioned Birds Directive.

On the basis of the Habitats Directive the areas for the conservation of natural habitats and of wild fauna and flora listed in annexes to the Directive have been proposed i.e. the **Special Areas of Conservation** (hereinafter referred to in as the "SAC").

Within the meaning of European legislation also the Slovak network of special areas of conservation has been established – the special areas of conservation and special protection areas. Within the meaning of the Habitats Directive, the National list of the special areas of conservation has been elaborated and issued through the Order No 3/2004-5.1 of Ministry of Environment of the Slovak Republic that includes 382 sites; this list has been extended in October 2011 through the Resolution of the Government of the Slovak Republic No. 577/2011 by another 97 sites. The sites have been defined for protection of selected species and habitats of Community importance. Through the generally binding regulation - the Decree, all special protection areas have been designated.

The special areas of conservation have been proposed for 44 plant species, 96 animal species and 66 habitat types, of which 23 are priority types. Based on the conclusions of biogeographic seminars another 17 biotopes and 23 species in Alpine biogeographical region proposed to be added to the list, which was followed by adding 16 biotopes and 29 species in the Panonian biogeographical region. Current total number of special areas of conservation is 473 areas. Within 6 years after the publication of Commission Decision adopting a list of proposed special areas of conservation, the Slovak Republic is obliged to designate all the sites in any of the categories of protected areas in accordance with national legislation.

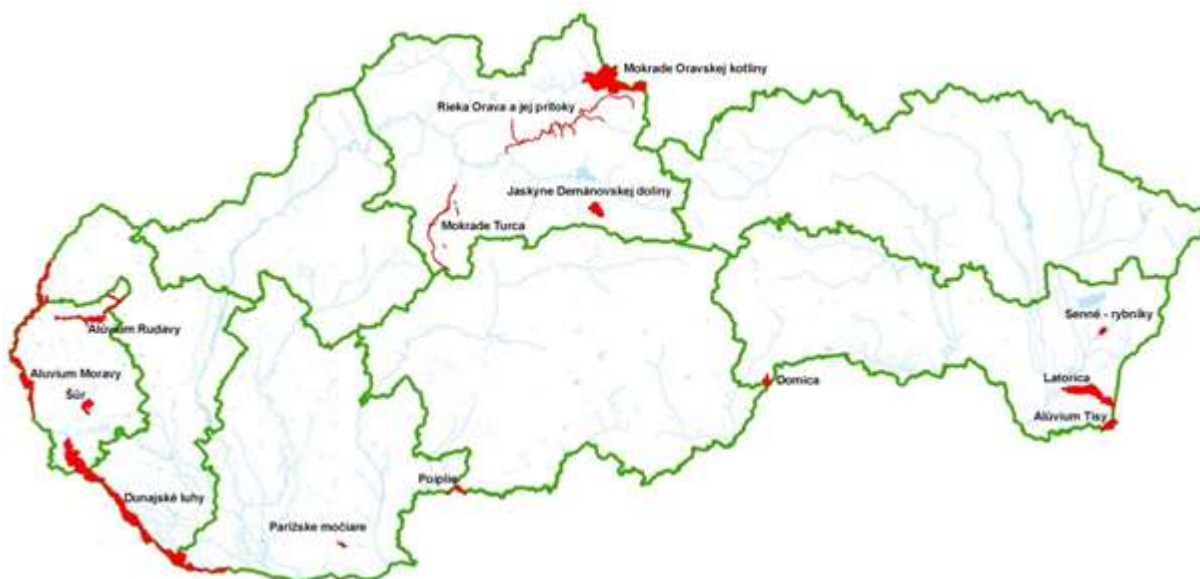
Areas of NATURA 2000 are described in detail in the chapter III.2.1.

#### **Protection of the territory under international conventions**

Some areas are protected also according to international conventions or other international legal acts.

Based on UNESCO International Agreement on Protection of Significant Environmental Amenities within the "Man and Biosphere programme – MaB" 4 sites of biospheric reservations (BR Vysoké Tatry, BR Poľana, BR Východné Karpaty and BR Slovenský kras) are on the list of MaB areas. Within the meaning of Ramsar convention on the List of internationally important wetlands 14 sites. Within the meaning of Ramsar convention in the List of internationally important wetlands 14 sites have been entered (Parížske močiare, Šúr, NNR Senné - rybníky, Dunajské luhy, Niva Moravy, Latorica, Alúvium Rudavy, Mokrade Turca, Poiplie, Mokrade Oravskej kotliny, Rieka Orava a jej prítoky, Domica, Tisa, Jaskyne Demänovskej doliny). In the list of world cultural and natural heritage there are 5 sites from Slovakia two of them as natural heritage (Jaskyne Slovenského a Aggtelekského krasu, Karpatské bukové pralesy).

Figure 10 Overview of Ramsar sites in Slovak Republic



Source: ŠOP SR; Compiled by: SAŽP, 2013 (<http://www1.enviroportal.sk/indikatory>)

#### ***Expected development if the SD would not be implemented***

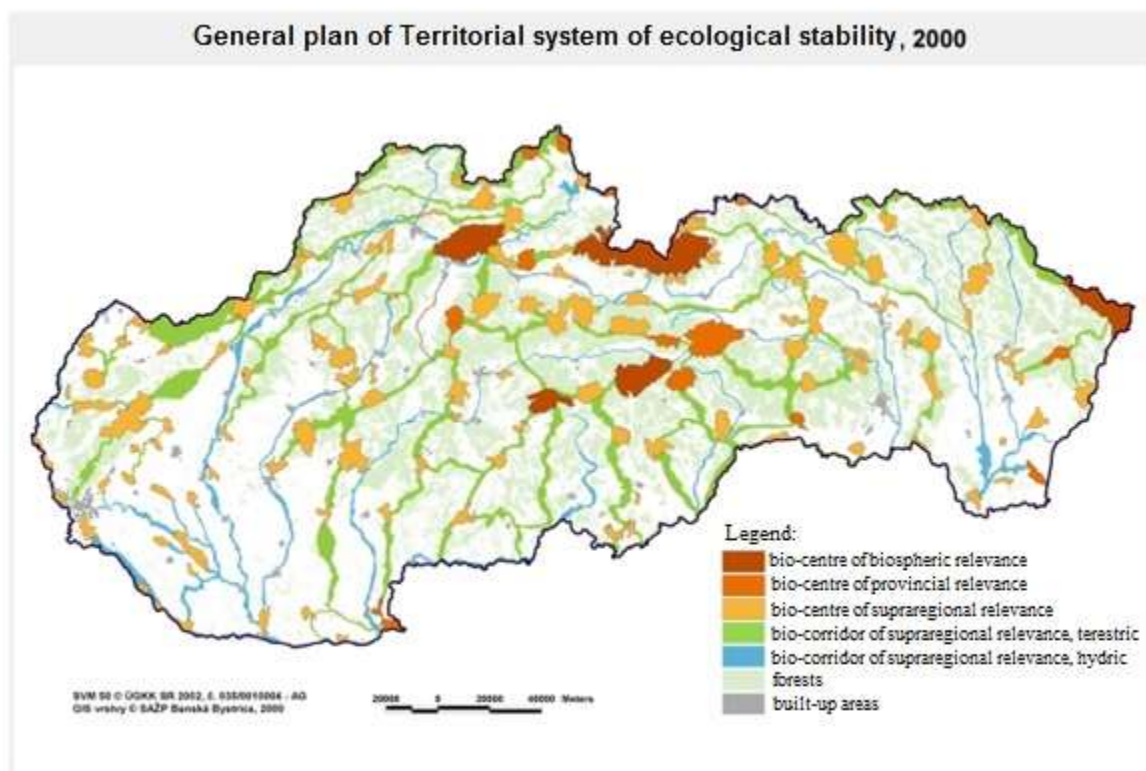
In case that the activities of SPRDI SR 2020 would not be implemented, it would result in decrease in the pressure on some protected areas. Also the interferences with some protected sites would not be undertaken.

#### ***Territorial system of ecological stability***

##### ***Background and trends***

Territorial system of ecological stability is a spatial structure of mutually interconnected ecosystems assuring diversity of conditions and forms of life in the country. It consists of bio-centres, bio-corridors and interactive elements on the following hierarchical levels: supraregional, regional and local levels.

Figure 11 Updated General Plan of TSES



Source: SAŽP

Based on the general plan (GNÚSES), 87 bio-centres with different hierarchical relevance (biospheric, provincial, supraregional) have been designated in 1992 in Slovakia. Within the updated GNÚSES in 2000 the number of bio-centres increased to 138 (5 with biospheric relevance, 13 with provincial relevance and 120 with supraregional relevance).

Supraregional territorial system of ecological stability consists of approximately 2 660 km of bio-corridors with supraregional, provincial and biospherical relevance. These have been determined based on historical migration routes of flora in Slovakia and possible directions of migration routes of flora in Slovak Republic in the present. Main supraregional bio-corridors extend along the valleys (of different widths) of larger rivers (e.g. Danube river, Považie, Latorica river), mountains (e.g. Malé Karpaty - Považský Inovec - Strážovské vrchy - Malá Fatra - Chočské vrchy - Tatras - Pieniny) or around mountains (e.g. Burda - Podunajská pahorkatina with a crossing to Štiavnické vrchy).

Counterparts to bio-corridors are the line barriers which prevent from the biota migration in the land and distort its ecological stability. These may be the semi-natural barriers which are generated by anthropogenic interference with waters, especially by pollution. Artificial barriers represent the network of anthropogenic transport corridors. The most burdened roads and railways belong to such barriers at the supraregional level.

#### **Expected development if the SD would not be implemented**

In case the activities of SPRDI SR 2020 would not be implemented, new barriers in landscape would not be created. On the other hand, modernisation of existing line barriers can mitigate the existing barriers in respect of migration routes, improve permeability of bio-corridors and thus mitigate the impacts of fragmentation to populations of species and limit a direct mortality of protected animal species.

## 1.7 Cultural heritage

### Objectives

- To protect cultural heritage

### Background and trends

For the purpose of this document, the cultural heritage shall mean the cultural and historic monuments and curiosities, archaeological sites, paleontological sites and significant geological sites.

Convention Concerning the Protection of the World Cultural and Natural Heritage was adopted on 16 November 1972 in Paris. Slovak Republic acceded to the Convention on 31 March 1993 as State number 134.

To this day, The World Heritage Committee, elected by their General Assembly, has approved and included following Slovak sites into the List of World Heritage Sites:

5 cultural sites:

- Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity;
- Levoča, Spišský Hrad and the Associated Cultural Monuments;
- Reservation of folk architecture Vlkolínec;
- Bardejov Town Conservation Reserve;
- Wooden Churches of the Slovak part of the Carpathian Mountain Area (Roman-catholic Saint Francis Church in Hervartov, Roman-catholic All Saints Church in Tvrdošín, protestant Articled Church in Kežmarok, protestant Articled Church in Hronsek, protestant Articled Church in Leštiny, Greek Orthodox St. Nicholas Church in Ruská Bystrá, Greek Orthodox St. Nicholas Church in Bodružal, Greek Orthodox St. Michael Archangel Church in Ladomírová).

2 natural sites:

- Caves of Aggtelekský kras Karst (with Hungary) and Slovenský kras Karst, including Dobšinská ľadová jaskyňa cave and Stratenská jaskyňa cave pursuant to the part of a nomination project Rokliny Slovenského raja (Gorges of Slovenský raj);
- Primeval Beech Forests of the Carpathians (with Ukraine and Poland).

Protection, restoration, use and presentation of monuments and monument sites are governed by Act No 49/2002 Coll. on protection of monument fund as amended by later regulations. Intangible cultural monuments represent the basis of historical settlement structures in the country.

Tab. 13 Trend in the structure of intangible national cultural monuments (NKP) by types

Type classification of KP*	2005	2006	2007	2008	2009	2010	2011
Monuments of Architecture	7,738	7,799	7,802	8,069	8,092	8,408	8,927
Monuments of Archaeology	360	368	369	376	393	407	408
Monuments of History	1,386	1,382	1,380	1,394	1,401	1,399	1,164
Monuments of Historical Greenery	340	341	344	344	373	382	409
Monuments of Folk Architecture	1,833	1,823	1,821	1,902	2,055	2,099	2,197
Monuments of Technology	454	484	496	500	526	520	593
Monuments of Visual Arts	1,005	1,015	1,007	1,367	1,506	1,603	1,379
Total	13,116	13,212	13,228	13,952	14,346	14,818	15,077

\* Only the number of monument objects, which represent the NKP, is shown

Source: Monument Board of the Slovak Republic

### Expected development if the SD would not be implemented

Status of intangible cultural monuments is adversely affected by the transport. Whereas the most of the monuments are bound to centres of settlements, most of them are also affected by emissions and vibrations from the transport. In case of a failure to implement the transport infrastructure constructions specified in SPRDI SR 2020, which would divert part of the traffic away from residential areas of the cities and municipalities, this unfavourable situation is likely to stay the same or it will deteriorate. Similar negative impact may be expected also in case of a failure to implement the measures of SRVOND SR 2020; this shall mean the conservation of an adverse trend in increasing the share of travelling by cars on the modal split.

## 1.8 Material resources

### Objectives

- *To increase energy resources efficiency.*
- *To promote rational utilisation of natural resources*
- *To prevent waste*

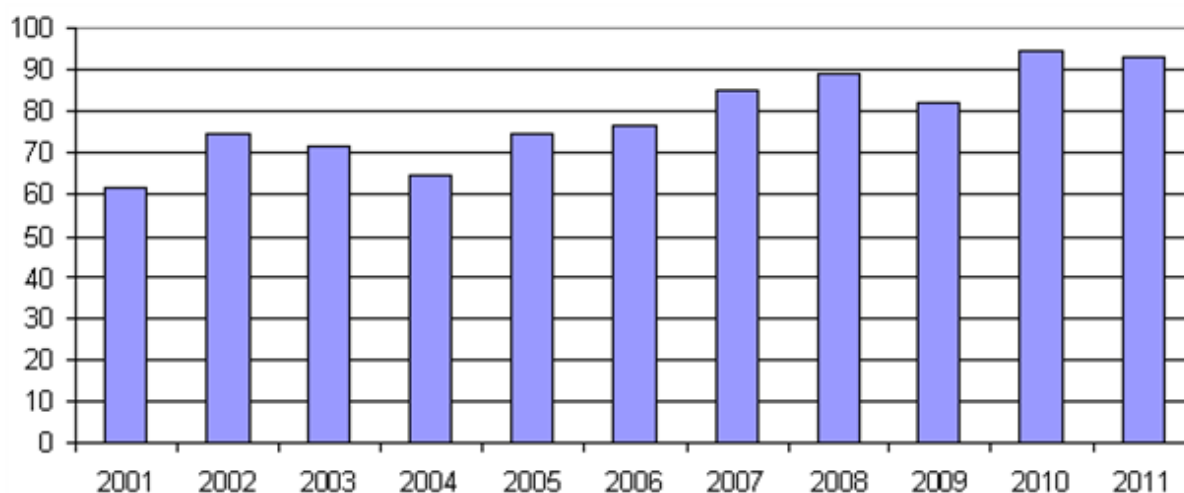
### Energy

#### Background and trends

Transport is the single sector of national economy of both the Slovak Republic and EU that shows long-term growth of energy consumption. Logistic services focused on transport of goods and ever growing number of vehicles are the main contributors to growth of energy consumption in transport sector, which in spite of a gradual decrease in consumption of passenger and freight automobiles does not bring about absolute energy savings. The growth factors are in particular a raising standard of living of citizens and development of road infrastructure. The energy consumption in railway passenger transport recorded a more than a one-third decrease and a 20% decrease in performance. As for performance of road public transport, it decreased by 40%. A permanent progressive transfer from mass to individually transport and from railway to road transport presents a risk of increasing the energy intensity of transport.

A final consumption of energy in the sector of transport in the period of 10 years has been of fluctuating nature. The largest share of final energy consumption in the transport sector (98%) belongs to final consumption of liquid fuels. The share of final consumption of solid fuel, gaseous fuel and electric energy is small. The largest share of total consumption of energy in transport sector belongs to the road transport. Lasting trend in growth of consumption can be observed in consumption of automobile petrol. In 2011 consumption of automobile petrol recorded more than 30% increase in comparison to the year 1990. It shows an ever growing trend of the ecologically most unfriendly means of transport - individual automobile transport. An increasing trend of fuel consumption per 1000 transported people in road transport is influenced by increasing share of individual automobile transport (IAD) and decreasing share of the mass road transport.

Graph 9 Final consumption of energy and fuels in transport sector

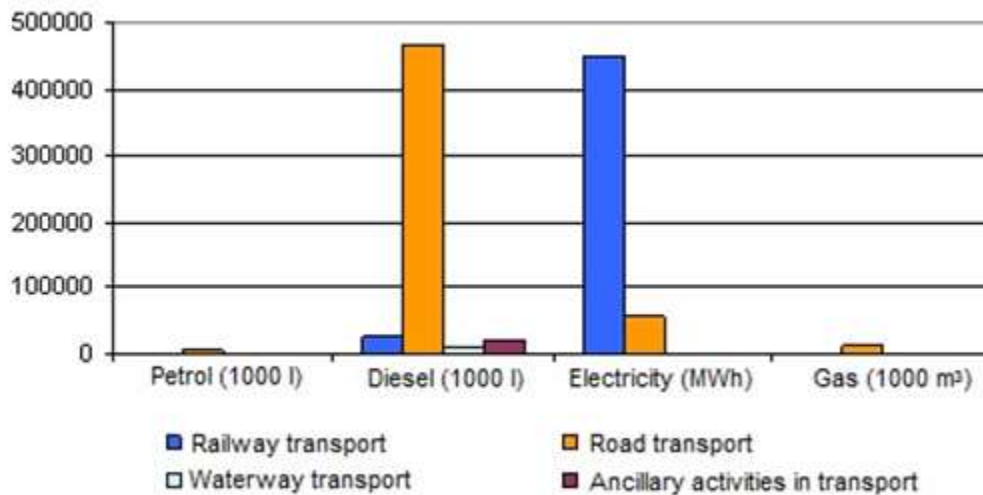


Source: ŠÚ SR, Compiled by: SAŽP, 2013

The consumption of a diesel fuel doubled in 2011 in comparison to the year 2000. The LPG consumption has been increasing from 1997 and in 2003 reached its peak consumption (30 483 t) during the all monitoring period. After that year, it has been of fluctuating nature.



Graph 10 Consumption of fuels and electricity in the transport sector in 2011 by transport modes



Source: ŠÚ SR, Compiled by: SAŽP, 2013

#### **Expected development if the SD would not be implemented**

The trend of an increasing fuel consumption may be expected also in the future in connection with an increase in automobilisation in the Slovak Republic continuing especially in the districts of north and east Slovakia. In case of a failure to implement the measures of SPRDI SR 2020 and SRVOND SR 2020, this scenario may become a bit more unfavourable as a result of travelling by cars, inefficient driving and creation of congestions.

#### **Mineral resources**

##### **Background and trends**

The construction of the transport infrastructure has an impact on resources of mineral raw materials in the construction sites surroundings due to relatively high demands on raw materials particularly building stone and aggregates. Non-metallic and building minerals deposits and extraction in the Slovak Republic cover the domestic consumption and represent a significant export commodity as well.

In the meaning of the Mining Act No 44/1988 Coll. as amended by later regulations, building stone and aggregates are classified as so called non-assigned minerals. According to registry of non-assigned minerals deposits, 457 deposits of non-assigned minerals with overall geological deposits of 2 800 million tonnes were registered in the Slovakia to the date of 1.1.2011. An extraction of non-assigned minerals reached 8.3 million tonnes in the year 2010.

#### **Expected development if the SD would not be implemented**

The extraction of mineral raw materials is an important part of national economy. In case that the transport infrastructure constructions would not be implemented, this segment will be badly impaired.

#### **Waste**

##### **Background and trends**

A waste from the transport is generated in particular as a consequence of the vehicle fleet alternation, the construction and upgrading the transport infrastructure and the carriage.

The Act No. 223/2001 Coll. on waste defines the waste management as the waste collection, carriage, recovery and disposal, including the care of disposal. According to statistical classification of economic activities, in terms of waste production, the H section – Transport and storage – placed seventh in 2008 with share of 1.81%, eighth in 2009 with share of 2.50%, and tenth in both 2010 and 2011 with share of 1.35% and 1.10% respectively.

The issue of construction and demolition waste is particularly important with regard to development of transport infrastructure as it is produced not only in construction but also in maintaining the built structures and in changing and removing them. In the period 2005-2011 the total production as well as



total waste production of construction and demolition waste increased and at the same time the share of total waste production increased. In 2005 the construction and demolition waste (including excavated earth from contaminated sites) represented 20.38% of total waste production, in 2011 it increased to 27.53%. An increase in production in 2011 in comparison to the year 2005 is 33.92% (755 672, 10 t).

The construction and demolition waste represents a significant source of secondary raw materials. Also the Waste management programme of the Slovak Republic for the period 2011 – 2015 proceeds from this fact. Within this programme an objective was established for construction and demolition waste to ensure its re-use, recycling and recovery (with an exemption of item 17 05 04 "soil and stones other than those mentioned in 17 05 03") to at least 35% of produced waste mass by the end of 2015.

#### *Expected development if the SD would not be implemented*

A failure to construct transport infrastructure specified in SPRDI SR 2020 does not have a significant impact on the waste management. In case of a failure to implement the measures and constructions of SRVOND SR 2020 an adverse development of the waste production connected with continuing growing trend of travelling by cars in cities can be expected.

## **2. INFORMATION IN RESPECT OF AREAS OF PARTICULAR ENVIRONMENTAL IMPORTANCE SUCH AS NATURA 2000, THE EUROPEAN NETWORK OF SPECIAL AREAS OF CONSERVATION AND PROTECTED WATER MANAGEMENT AREAS**

### **2.1 Natura 2000**

Within the meaning of implementation of principles of EU policy on protection of biodiversity and ecosystems the complete implementation of the network of special areas of conservation NATURA 2000 is under way. From a legal viewpoint it is a process of implementation of two core directives laying down the basis of nature protection in EU: The Council Directive 79/409/EEC on the conservation of wild birds as amended by later regulations (the Birds Directive) and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive).

The aim of the NATURA 2000 network is to assure natural heritage protection of most valuable and threatened species of flora and fauna and habitats, as well as to preserve the favourable conservation status of habitats and species of European importance as a natural heritage.

The NATURA 2000 network comprises of two types of sites:

- **Sites of Community Importance as Special Areas of Conservation (SAC)** designated under the Habitats Directive,
- **Special Protection Areas (SPA)** designated under the Birds Directive.

#### *Special Areas of Conservation (SAC)*

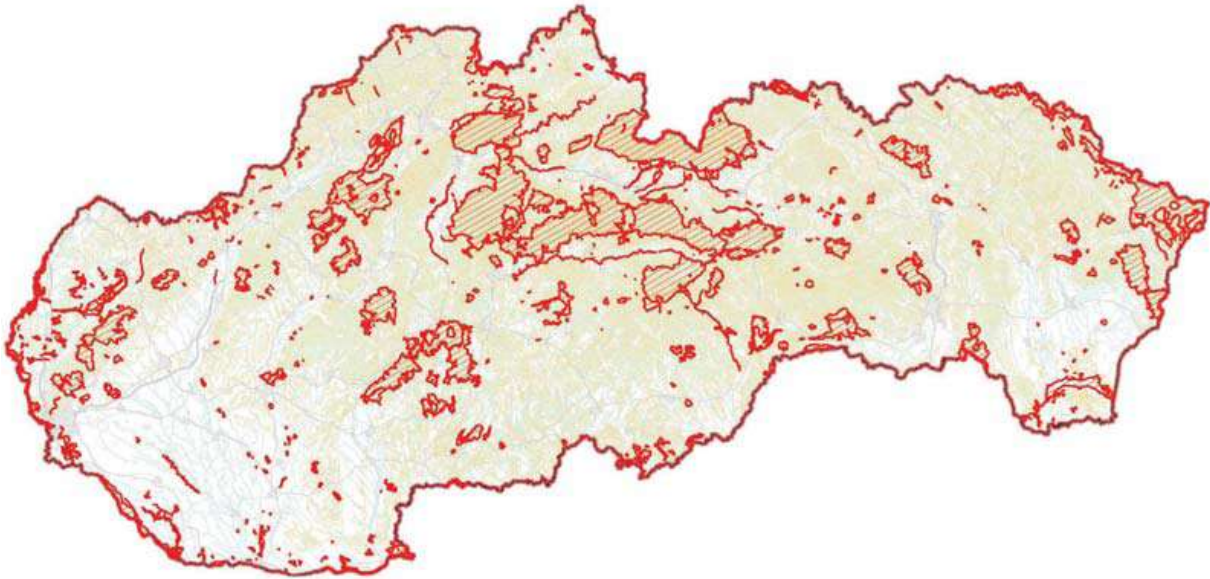
National list of Special Areas of Conservation containing 382 sites was elaborated in Slovakia and issued through the Order of Ministry of Environment of the Slovak Republic No 3/2004-5.1 within the meaning of the Habitats Directive. Another 97 areas were selected in order to amend the national list of the proposed Areas of European Importance based on the conclusions of international biogeographic seminars as sites chosen for protection of selected species and habitats of Community importance have not been sufficiently represented in the list from 2004. In October 2011 under the Resolution of the Slovak Government No 577/2011 the national list has been enhanced by 97 abovementioned sites and 6 original sites have been deleted. The current total number of SAC is 473 areas with the area of 584 353 ha. Total share of SAC in the area of Slovak Republic has reached 11.9%.

#### *Special Protection Areas (SPA)*

SPAs are declared to ensure the survival and reproduction of certain bird species. It is concerning habitats of bird species of European importance and migratory bird species, especially areas of their breeding, moulting and wintering and staging posts along their migration routes.

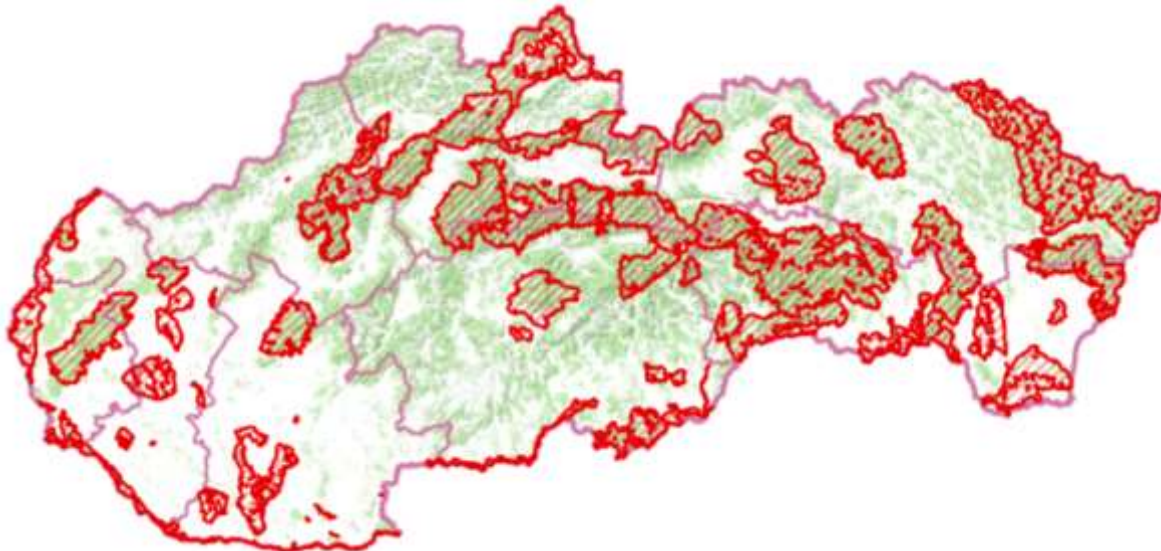
The national list of special protection areas approved by Resolution of the Slovak Government no. 636 of July 9, 2003, contained 38 areas. Under the requirements of European Commission 5 areas have been added to the list and 2 areas have been deleted in 2010. Updated list amended by Resolution of the Slovak Government No 345 of May 25, 2010, contains 41 areas in total. By January 1, 2013, all of the 41 SPA are designated. The total area is reaching 1 282 811.0186 ha, which represent a 26.16% share of the area of the Slovak Republic.

Figure 12 Updated overview of Special Areas of Conservation in the Slovak Republic



Source: SAŽP, 2013

Figure 13 Updated overview of Special Protection Areas in the Slovak Republic



Source: <http://geo.enviroportal.sk/vu/>, 2013

## 2.2 National network of protected areas under the Act No 543/2002 Coll.

The most valuable parts of nature in Slovakia are classified in one of the categories of protected areas within the Act no. 543/2002 Coll. on nature and landscape protection. With regards to protected areas, the Act No 543/2002 Coll. on nature and landscape protection provides for five grades of protection,

the highest of them representing the strictest protection. Specific protection degree is assigned to each category of the protected area and the Act also defines those activities that are forbidden to perform in the area marked with the specific protection degree.

Figure 14 Updated overview of large-area Special Protection Areas in the Slovak Republic



Source: SAŽP, 2013 (<http://www.sazp.sk/slovak/periodika>)

Tab. 14 Review of protected areas in Slovak Republic (as of 31 December 2012)

Category	Number	Area of protected area (ha)	Area of protection zone (ha)	% of area of SR (incl. protection zones)
Protected landscape areas	14	522,582	-	10.66
National parks	9	317,890	270,128	11.99
Total	23	840,471	270,128	22.65
Protected landscape elements	1	3	-	0.00
Protected sites	173	11,023	2,425	0.27
Natural reserves (including 2 private)	392	14,246	301	0.30
National natural reserves	219	84,189	2,239	1.76
Natural monuments (without caves and waterfalls)	218	1,586	207	0.04
Natural monuments – caves free accessible for public	35	0	31	0.00
Natural monuments – other designated caves	7	0	261	0.01
Natural monuments – natural waterfalls	0	0	0	0.00
National natural monuments (without caves and waterfalls)	11	59	27	0.00
National natural monuments – caves	44	0	3,055	0.06
National natural monuments – natural waterfalls	5	0	0	0.00
Total small protected areas - number	1,105	-	-	-
Total small protected areas – area (SMPA + PZ)	119,650	111,105	8,545	2.44

Source: ŠOP SR, 2013

The area of 9 NP (6.48% of area of Slovak Republic), area of protection zones of NP (5.51% of area of Slovak Republic) and area of 14 CHKO (10.66% of area of Slovak Republic) adds up to 22.65% (1 110 599 ha) of area of territory of Slovak Republic (4 903 400 ha).



In the territory of CHKO, there is a total number of 247 small protected areas (SMPA) with a total area (along with their protection zones) of 12 471 ha (2.4% of CHKO territory), in the territory of NP there are 209 SMPA with a total area of (along with their OP) 72 396 ha (22.8% of territory of NP), in the territory of protection zones of NP it is 68 SMPA with a total area (along with their OP) 2 488 ha (0.9% of territory of OP NP) and in the territory outside of CHKO, NP and OP NP in so called free landscape there are 581 SMPA with total area (along with their OP) 32 295 ha (0.9% of area of so called free landscape and 27.0% of total area SMPA (along with their OP) in the Slovak Republic. area of total SMPA (along with their OP) represents 2.44% of the Slovakia territory.

## 2.3 PROTECTED AREAS DESIGNATED FOR WATER SUPPLY PURPOSES

### Water sources and their protection zones

In the meaning of Article 7 of the Act No. 364/2004 Coll. on waters (Water Act), the water sources are the subject matter of protection. Water sources shall mean the surface water and groundwater bodies used for the drinking water abstraction or for supply to population for more than 50 persons, or enabling the water abstraction for abovementioned purpose in volumes exceeding 10 m<sup>3</sup> per day. For their protection there are following three types of protection in the Slovak Republic:

- Protection zones of water supply sources,
- River basins of water supply courses,
- Protected water management area (hereinafter referred to as the "PWMA").

Tab. 15 Overview of water supply sources and their protection zones

Sub-basin	Number of water supply sources		Number of protection zones of water supply sources		Area of protection zones of water supply sources (ha)	
	groundwaters	surface waters	groundwaters	surface waters	groundwaters	surface waters
Morava	90	0	31	0	13,865	0
Danube	77	0	29	0	6,030	0
Váh	760	5	447	14	211,671	19,436
Hron	274	7	173	7	56,917	9,542
Ipeľ	55	1	70	1	15,917	8,400
Slaná	62	5	76	6	13,789	13,762
Bodva	3	1	30	7	12,146	10,416
Hornád	152	4	124	18	19,324	72,693
Bodrog	215	11	230	17	7,082	339,459
SÚPD	1,688	34	1,210	70	356,472	473,708
SÚPV	46	9	59	11	15,580	15,925
SR total	1,734	43	1,269	81	372,052	489,633
SÚPD - administrative territory of Danube river basin						
SÚPV - administrative territory of Visla river basin						

Source: Water plan of Slovakia, 2009

### River basins of water supply courses

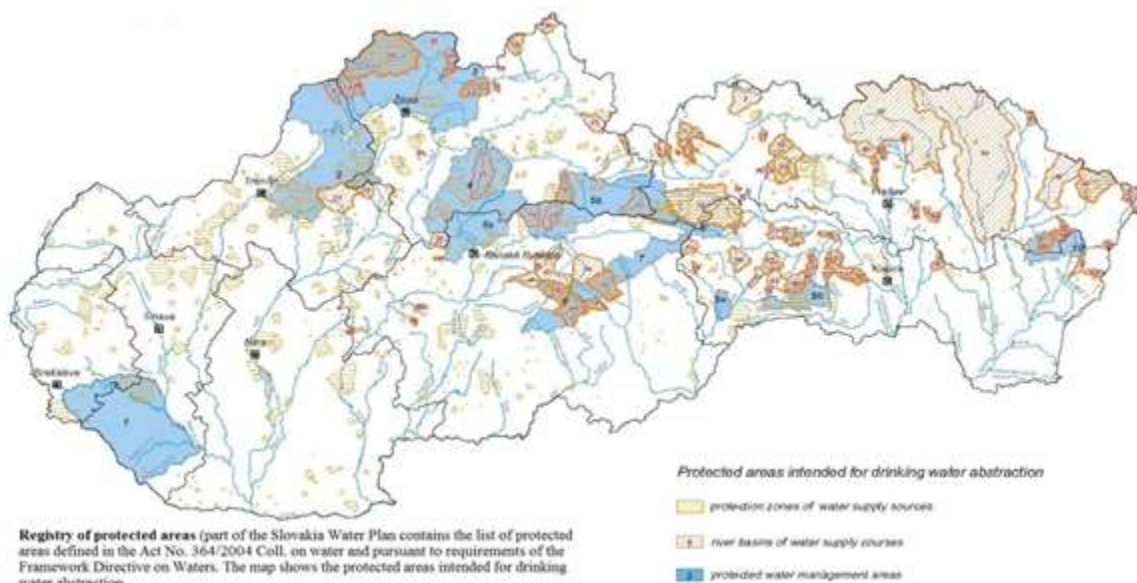
In Slovak Republic there are 102 designated water courses, which are used or can be used for abstraction of drinking water. Their list is mentioned in the Decree of Slovak Ministry of Environment no. 211/2005 Coll. establishing a list of water management significant water courses and water supply courses.

### Protected water management areas

In the Slovak Republic there are 10 designated PWMA defined in the Article 31 of the Act No 364/2004 Coll. on waters, as amended by later regulations. Their list is referred to in the Regulation of Slovak Government No 46/1978 Coll. on protected area of natural accumulation of waters on Žitný ostrov, as amended by later regulations and in the Regulation of Slovak Government No 13/1987 on certain protected areas of natural accumulation of waters.

PWMA are territories, in which natural accumulation of groundwaters and surface waters occur due to favourable natural conditions.

Figure 15 Protection of waters – protected areas intended for drinking water abstraction



Source: SAŽP, 2013

### 3. CHARACTERISTICS OF ENVIRONMENT INCLUDING HEALTH IN AREAS LIKELY TO BE SIGNIFICANTLY AFFECTED

The proposal of the strategic document will affect the entire territory of the Slovak Republic and its implementation should contribute to some degree also to global problems solution.

Proposed projects of transport infrastructure are situated along to entire Slovakia territory; priority projects are situated in particular in the regions of northern and eastern Slovakia, in Bratislava and Košice agglomerations, in central-south corridor Zvolen – Košice. The environment in these regions shall be characterised with a relatively heavy burden as a consequence of transport operation negative impacts.

The analysis of situation according to the list of TERM indicators and by means of D-P-S-I-R chain shall contribute to perceive the issue and to assess the assumed impacts and options for their modifications. To some degree of generalisation it may be noted, that in case of Bratislava and Košice agglomerations and Považie region these are the regions in which the transport appears as the expressive driving force in the chains of relationships between the human activities and the environment. Abovementioned regions show the highest share of passenger and freight transport performances. With regard to the population density; such regions have the high requirements for ensuring the access to the core and transport services and to the market and a they possess a high potential of transboundary cohesion. The obvious sign of the driving force of transport is the pressure on the environment of regions resulting in emissions of greenhouse gases and pollutants and production of waste from transport. In the region rural areas this effect may be demonstrated through the fragmentation of the territory, ecosystems and habitats, the impacts on the biodiversity and the land take for the transport infrastructure.

Direct and indirect effects of the transport operation on the health of population are significantly influenced by the traffic congestion and transport infrastructure localisation in a settled territory. Radical changes in traffic patterns and localisation of the transport infrastructure are expected in the road transport. Actual localisation status of the intermodal transport will be changed through assumed construction of intermodal transport terminals. In the railway and air transport the new known investment projects will be implemented within the existing network of transport infrastructure.

### *Traffic load in road transport*

The highest degree of an impact of the transport process on the environment may be assigned to the road transport. According to data of EEA Copenhagen, the road transport is responsible for 17.5% of total emissions of greenhouse gases in Europe, in the period from 1990 to 2009 the emission from transport have increased by 23%.

Environmental issues and in particular the issues associated with the impact on the health of population resulting from the traffic volume and the condition of roads on which the transport process is performed. The performance shall mean the road capacity to bear the traffic volumes. It is assessed within the meaning of the standard STN 73 6101 by comparison of the value of peak lane intensity (based on the 50<sup>th</sup> highest hour),  $I_{50}$ , with the value of permissible (design) intensity,  $I_p$ . Permissible (design) intensity  $I_p$  shall mean the value of traffic volume for given category in particular construction and transport conditions whereby the minimum permissible travel speed shall be observed. With regard to abovementioned the calculation of permissible (design) intensities for basic categories shall be carried out by the type of the road. In case that the value of 50-impulse intensity,  $I_{50}$ , is higher than the value of permissible (design) intensity,  $I_p$ , the road section performance may be earmarked as insufficient.

Currently, average daily traffic volumes are exceeded on the most important D1 and D2 motorways, particularly in residential areas of the Bratislava City and in the section between Bratislava and Trnava.

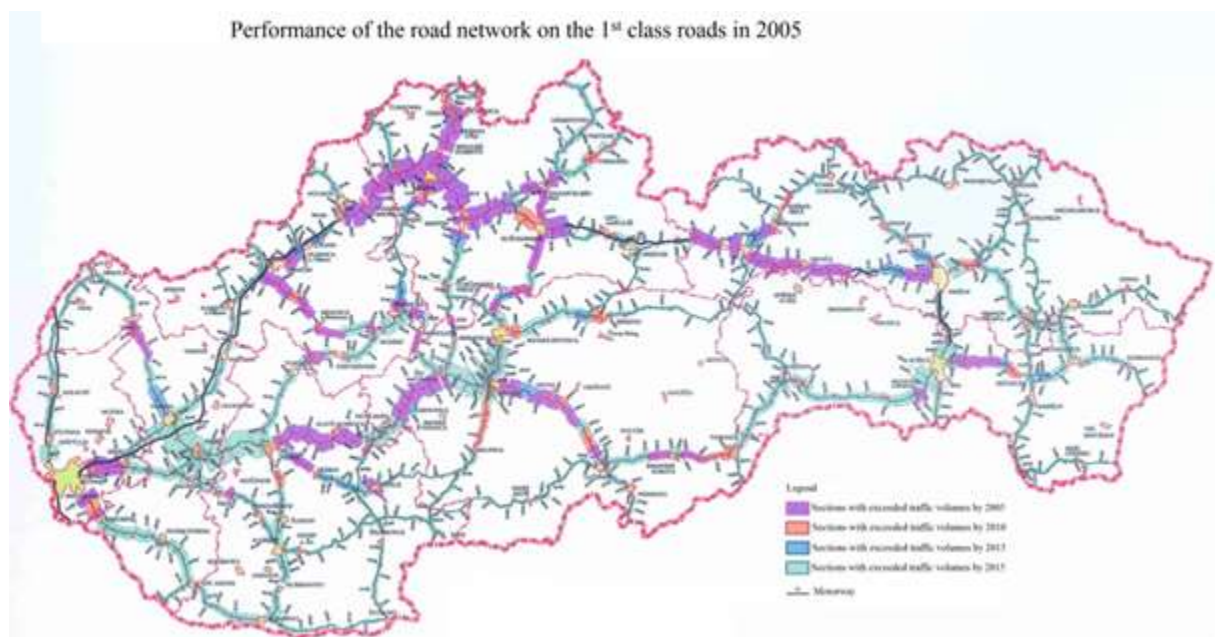
In 2012 the permissible traffic on motorways and expressways outside Bratislava City was exceeded to extent of 49 km, i.e. 13.06% of total length of motorways and expressways. It may be foreseen that by 2020 the permissible traffic volumes will be exceeded in the extent of 105 km, which means 27.97% of total length of motorways and expressways.

The development trend of average daily traffic volumes in the road transport shows that the maximum traffic volumes bear the I. class roads; their performances are insufficient in many sections. This status is caused by the missing network of motorways and expressways as well as often by traffic constraints of construction-technical nature on the I. class roads. In many cases the elimination of bottlenecks shall be sufficient. Residential sections of the 1st class roads crossing the cities, in which the transit, source, terminating and internal traffic is accumulated, represents a special chapter.

In 2012, the permissible traffic volume has been exceeded on the I. class roads in rural areas in the extent of 358 km, i.e. 12.67% of total length of I. class roads in rural areas, by 2020 it can be expected to exceed permissible traffic volumes in length of 452 km, which is 16.01% of total length of I. class roads in rural areas.

The following figure documents the status of a performance (capacity) of the 1<sup>st</sup> class roads in 2005, however it does not reflect constructed motorways D1 and D3 to Žilina, the motorway D1 between Vážec – Jánovce, the expressway R1 to Tekovské Nemce. The figure shows the apparent insufficiency in the performance of the 1<sup>st</sup> class roads within corridors of planned motorways D1 and D3 and certain sections of expressways.



Figure 16 Performance of the 1<sup>st</sup> class roads in SR in 2005

Source: SSC Bratislava, <http://www.ssc.sk>, 2013

The maximum averaged value of daily traffic volumes in year 2010 for whole road route in rural areas in Slovakia has been calculated in the corridor of planned motorway D1 Žilina - Višňové - Dubná Skala – Hubová – Ivachnová. It is concerning the I/18 road, on which the averaged value of AADT is 21 141 vehicles/24 h. Similarly for the I/11 road route Žilina Brodno – Kysucké Nové Mesto – Čadca – Svrčinovec the value 16 195 vehicles/24 h has been calculated however with alarming high share (33-55%) of the heavy goods transport. In Svrčinovec it represents 4 940 [vehicles/24h.] heavy goods vehicles. The high share of heavy goods transport is associated with the gradual development of a motorway network in the central north-south route in Poland having a high attractiveness for long-distance carriage of goods. A long-distance road freight transport routed to the south and south-east Europe is looking for its natural interconnection across the Slovak territory with the corridor of future motorway D3 – i.e. currently with its substitution in the form of the I/11 road. Missing data from the toll system relating to the routing of the freight transport in the Slovak territory act as the massive deficiency of SPRDI SR 2020 in the road freight transport; this shall result subsequently in limited options of its environmental assessment.

Detailed description of traffic volumes on roads along with the planned projects of the road infrastructure development is specified in the table in the chapter III.1.1.

Actual situation on the modal split between mass, in particular bus, transport and individual automobile transport did not show critical values Slovakia until 2000. However, it is necessary to note, that currently in larger cities in peak hours the complications have often and often occurred on the roads. They are localised mainly in entry sections into the cities and on the junctions of basic communication systems (hereinafter referred to as the "ZAKOS"). Traffic congestions in cities cause the increase in negative impacts on environment and in time losses of road users, the delay of transport means, including those engaged in the public passenger transport and the decrease in accessibility of the territory.

A solution how to precede the traffic congestions in cities consists in construction of telematics systems (improvement of transport network capacity and increase in the safety of road users) but mainly in the change of the modal split in cities in favour of urban mass transport.

Development of modal split in Slovakia has quoted in last 40 years a radical change in favour of the individual car transport.

Tab. 16 Development of modal split in Slovak Republic (as a whole)

Year	Modal split in SR [%]	
	Public mass transport	Individual car transport
1970	77.03	22.97
1990	62.26	37.74
2000	34.00	66.00
2010	24.40	75.60
2011	25.20	74.80

Source: <http://www.svetdopravy.sk>, Trend rozvoja automobilizácie a jeho vplyv na deľbu prepravnej práce ((Trend in the development of motorisation and its impact on the modal split), Peter Faith, ŽU Žilina, 2012

Results of inquiry on the individual car transport use prove, that the cars are more and more used for travels to the job, what may be deemed, from the social point of view, as unsuitable trend. The second important purpose of the car use are the travels for shopping and services, sport, vacation and relaxation have been determined. Analyses of inquiry in the car use mention the significant information: in considering the modal split between individual automobile and mass transport it cannot proceed from total transport performance and its consecutive division between public and individual transport, but from objective needs and options of development of each transport mode.

From motorisation experiences and analyses it results that motorisation rate around 3.5 inhabitants per car begins to cause first problems of society such as the safety of traffic and parking places. Very serious problems arise when motorisation rate reaches 2.5 inhabitants per car. In urban traffic on the ZAKOS of large Slovakia cities, the traffic congestions are generated during working days in rush hours. Equally, the vehicle congestions are generated on the road entries into larger cities. Extensive traffic congestions are registered in cities - smaller as well as larger - in which the continuity of motorway network is interrupted (typical examples: Žilina, Prešov, Košice, or in section of missing motorway: Kysucké Nové Mesto, Čadca, Vrútky, Ružomberok).

A dynamic development occurs in Bratislava region on the one hand in direction to other Slovakia territory on the other hand to territories of neighbouring States. In the framework of this development sub-urbanisation processes are ongoing within which the migration of population from cities to surrounding municipalities as well as increase migration of initially rural population to urban areas to works occurs. Through abovementioned, the reconstruction of residential buildings of rural residences as well as a new construction is induced; the latter is connected with the qualitative agricultural and forest land take in the ambient of core settlement areas. Enhanced commuting to work and schools to Bratislava cause in the same time the traffic congestions multiplied also by significant growth of passenger automobile transport at the expense of mass rail and bus transport. A similar scenario is registered also in other Slovakia cities with a high share of daily commuting to work and schools (for more details see the part "agglomerations links" in Chapter 1.1 Transport aspects in relation to settled territory).

According to actual development of the motorisation in Slovakia as well as on the basis of comparison with developments in Central European countries it may be expected that the next motorisation development will depend in particular on stable economic situation in the country. This depends on the absence of policy and economic shocks, living standard comparable with countries in which the saturation in motorisation has been attained. Based on these presumption it may be expected, that the growth of number of cars, and their use in Slovakia related to it, will achieve the saturation grade about 2030 in value of 2.27 inhabitants per car. A prognosis considers with the balanced growth of GDP level, the growth of real population incomes and equidistant development of population expenditures and the consistent stabilisation of the car prices.

Regional prognoses relating to the growth of motorisation rate assume the highest growth rate conditioned by demographic and socio-economic development (actual less than average motorisation rate of SR, total increment of population, expected growth of GDP in region), mainly in northern Slovakia, in external background of Bratislava and Košice agglomerations. In large cities of Slovakia where actual motorisation rate already approaches to the saturation grade the increment of motorisation rate will be minimal.

Tab. 17 Prognosis of trend in motorisation in Slovak Republic (as a whole)

Year	Number of pass. cars	Motorisation rate [number of inhab./pass. car]	Cars/Inhab. ratio [pass. cars/1 000 inhab.]
1995	1,015,794	5.28	189.24
2000	1,274,244	4.24	235.88
2005	1,303,704	4.13	241.92
2010	1,598,741	3.38	296.12
2015	1,789,654	3.02	331.36
2020	1,998,740	2.71	368.77
2025	2,198,740	2.47	404.55
2030	2,401,250	2.27	441.49

Source: <http://www.svetdopravy.sk>, Trend rozvoja automobilizácie a jeho vplyv na deľbu prepravnej práce ((Trend in the development of motorisation and its impact on the modal split), Peter Faith, ŽU Žilina, 2012)

### *Localisation of planned network of motorways and expressways with regard to the settled territory*

Government approved NPVDRC 2001 defines a network of motorways and expressways:

- D1 Bratislava (Petržalka - crossing D2 ) - Trnava - Trenčín - Žilina - Prešov - Košice - Záhor state border SR / UA , Stroke length is 517 km;
- D2 state border CR / SR Kúty - Malacky - Bratislava (Rusovce) state border SR / MR, stroke length is 80 km;
- D3 Žilina (intersection with D1) - Kysucké Nové Mesto - Čadca – Skalitz state border SR/PR, stroke length is 59 km;
- D4 state border RR / SR Bratislava (Jarovce) - intersection with D2 (with the possible continuation of the distant views along the route zero ring Bratislava), Stroke length 3 km;
- R1 Trnava - Nitra - Žarnovica – Ziar nad Hronom - Zvolen - Banská Bystrica , Stroke length is 161 km ;
- R2 state border CR / SR Drietoma - Trenčín - Prievidza – Ziar nad Hronom - in peaz with R1 - Zvolen - Lučenec - Rimavská Sobota - Rožňava - Kosice , Stroke length is 349 km ;
- R3 - state border MR / SR Šahy - Krupina - Zvolen - Ziar nad Hronom - Turčianske Teplice - Martin - Kralovany - Dolný Kubín - Trstená - state border SR / PR (with the alternative of the department Zvolen - Banská Bystrica - Uľanka - Turčianske Teplice) , Stroke length is 234 km ;
- R4 state border MR / SR - Milhost' - Kosice - in peaz the highway D1 -Prešov - Svidník - Vyšný Komárnik - state border SR / PR , Stroke length is 108 km ;
- R5 state border CR / SR Svrčinovec - motorway D3 , Stroke length is 3 km ;
- R6 state border CR / SR Lysá pod Makytou - Puchov , Stroke length is 19 km.

Government approved the update NPVDRC of 2008, the network of motorways and expressways in the following form :

- D1 Bratislava (Petržalka- crossing D2 ) - Trnava - Trenčín - Žilina - Prešov - Košice - state border SR / UA ;
- D2 st. border CZ / SK - Kúty - Malacky - Bratislava - st. border SR / MR ;
- D3 Žilina - Kysucké Nové Mesto - Čadca - Skalitz - state border SR / PR ;
- D4 state border RR / SK - Bratislava - Jarovce intersection D2 - crossroads Rovinka - D1 junction with Ivanka on the Danube north - crossing road II/502 - crossing road I/2 - crossing D2 Stupava south - state border SR / RR ;
- R1 Trnava - Nitra - Žarnovica - Ziar nad Hronom - Zvolen - Banská Bystrica - Ruzomberok ;
- R2 Trenčín intersection D1 - Prievidza – Ziar nad Hronom - Zvolen- Lučenec- Rimavská Sobota – Rožňava - Kosice ;

A localisation effect of a road network may be considered as the core parameter. The sense of the road network existence has an anthropogenic merit. It is apparent that, except for the primary function of the area accessibility for the purpose of its usage by human, all negative impacts of the transport process will effect on the areas accessible to the transport. The maximum requirements for areas accessible to the transport are logically cumulated to the spaces connected to the concentration of human activities. Within them a negative effect of the transport process has an impact on the originator of transport activities, inhabitants and their health condition.

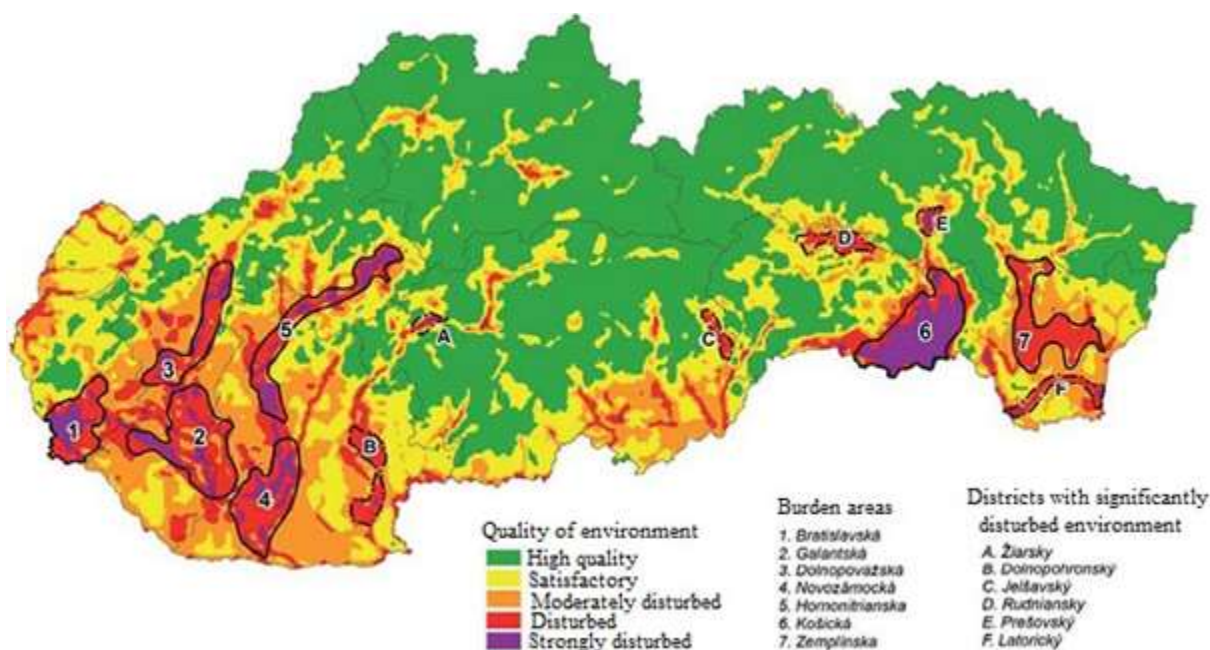
For the purpose of description of scheduled motorway and expressway networks the data on their localisation in settled areas may be used. Precise data inform about the share of the length of rural

sections of existing roads substituting the function of motorways and expressways as well as prepared motorways and expressways, in their total length. This parameter is important in relation to diverting the transit transport away from residential areas of cities and municipalities on the routes of prepared motorways and expressways. Mentioned parameters are presented in tables in the Annex 2.1.

### Environmental regionalisation

Overall character of environmental quality of the territory based on the analysis of impact on environment and individual risk factors in the regions of the Slovak Republic is expressed in "Environmental regionalisation of the Slovak Republic" compiled by SAŽP in 2010. The regionalisation of the Slovak Republic and assignation of the degree of environmental quality of the territory presented in the following pictures represent synthetic documents.

Figure 17 Quality of environment

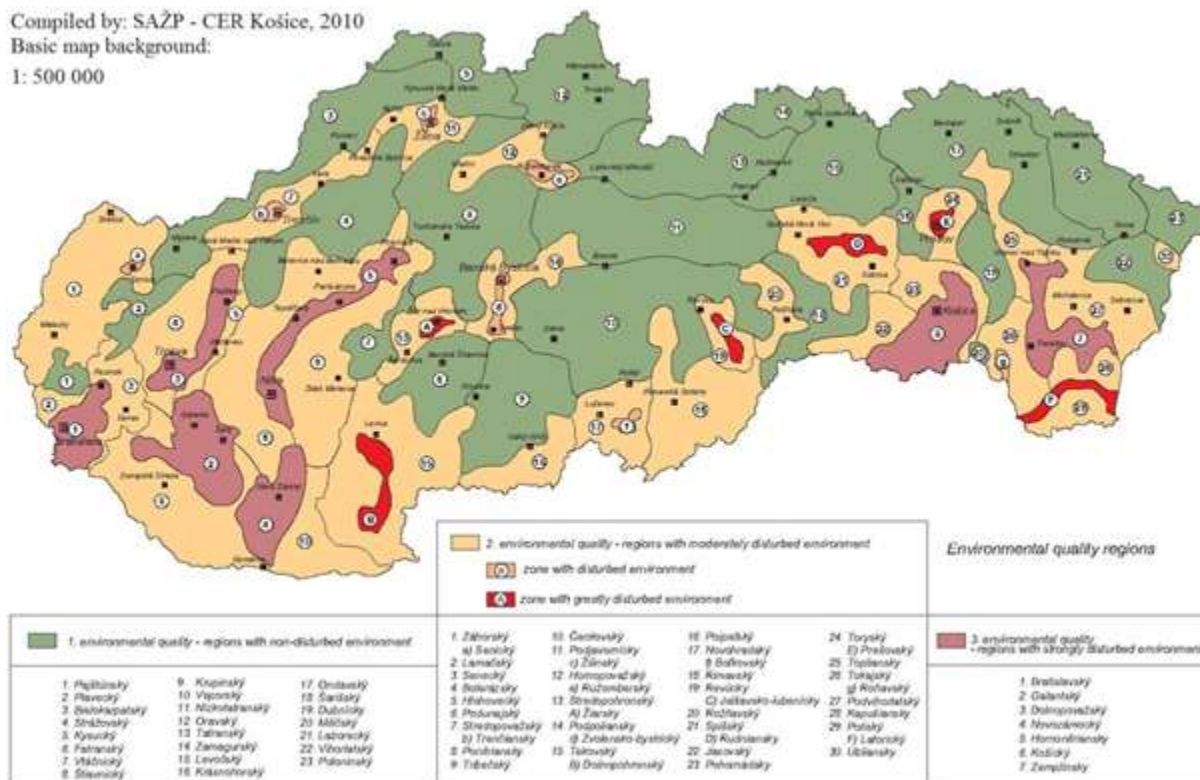


Source: SAŽP



Figure 18 Regions of environmental quality

Compiled by: SAŽP - CER Košice, 2010  
 Basic map background:  
 1: 500 000



Source: SAŽP

In terms of environmental quality the projects in northern Slovakia will be implemented mostly in environment of high quality and in the environment favourable from the regionalisation point of view and in the region with undisturbed (regions of Biele Karpaty, Kysuce and Tatry) or slightly disturbed (region of Podjavornice and Spiš) environment.

Projects in eastern Slovakia will be implemented mostly in disturbed or strongly disturbed environment and from regionalisation point of view in regions with slightly disturbed (region of Prešov, district with considerably disturbed environment) and strongly disturbed environment (region of Košice).

### Areas of air quality management

Emission burden of area may be characterised through the areas air quality management. Projects of transport infrastructure development interfere with the following areas of air quality management:

- Area of the city of Žilina;
- Areas of the city of Prešov and Ľubotice municipality;
- Areas of the city of Košice and Bočiar, Haniska, Sokolany, Veľká Ida municipalities.

The reason for designating the abovementioned areas is excess of the permissible concentrations of PM<sub>10</sub>. It is assumed that by the implementation of the projects the situation of areas would be improved as a result of the shift of a part of traffic volume from urban agglomerations.

### Areas of nature and landscape protection interests

Certain projects of SPRDI SR will be implemented in areas valuable in terms of the nature conservation. Interference and potential direct or indirect impact (corridor of road and railway infrastructure has been taken into consideration in length of approximately 1 000 m) is likely to be present in: Národný park Malá Fatra National Park, Národný park Veľká Fatra National Park, Národný park Slovenský kras National Park, CHKO Kysuce, NP Nízke Tatry, CHKO Dunajské luhy, CHKO Malé Karpaty, CHKO Štiavnické vrchy, CHKO Východné Karpaty, CHKO Záhorie, CHKO Cerová vrchovina, SKUEV 1064 Bratislavské luhy, SKUEV 3013 Devínske jazero, SKUEV 0217 Ondriašov potok, SKUEV 0218 Močiarka, SKUEV 0117 Abrod, SKUEV 0121 Marhecké rybníky, SKUEV 0167 Bezodné, SKUEV 0502 Štokravská vápenka, SKUEV0295 Biskupické luhy, SKUEV0312 Devínske alúvium Moravy, SKUEV0314 Morava, SKUEV0104 Homol'ské Karpaty, SKUEV0279 Šúr,

SKUEV0388 Vydrlica, SKUEV0269 Ostrovné lúčky, SKUEV0257 Alúvium Ipľa, SKUEV0365 Dálovský močiar, SKUEV0084 Zátoň, SKUEV0261 Dedinská hora, SKUEV0086 Krivé Hrabiny, SKUEV0054 Cudenínsky močiar, SKUEV0055 Ipeľské hony, SKUEV0589 Chynorienský luh SKUEV 0097 Palárikovské lúky, SKUEV 0095 Panské lúky, SKUEV 0184 Burdov, SKUEV 0393 Dunaj, SKUEV 0250 Krivoštianka, SKUEV 0231 Brekovský Hradný vrch, SKUEV 0017 Pri Orechovom rade, SKUEV 0010 Komárňanské slanisko, SKUEV 0099 Pavelské slanisko, SKUEV0252 Malá Fatra, SKUEV0253 Váh, SKUEV 0665 Strečnianske meandre Váhu, SKUEV0221 Varínka, SKUEV0238 Veľká Fatra, SKUEV0243 Orava, SKUEV0254 Močiar, SKUEV0256 Strážovské vrchy, SKUEV0667 Slnčné skaly, SKUEV0305 Choč, SKUEV0663 Šíp, SKUEV0309 Poprad, SKUEV0382 Turiec a Blatnický potok, SKUEV0147 Žarnovica, SKUEV0266 Skalka, SKUEV0260 Mäsiarsky bok, SKUEV0328 Stredné Pohornádie, SKUEV0352 Hrušovská lesostep, SKUEV0356 Horný vrch, SKCHVU053 Slovenský raj, SKUEV0139 Gánovské slaniská SKUEV0708 Primovské skaly, SKUEV0782 Vydrička slatina, SKUEV0784, Mašianske sysľovisko, SKUEV089 Martinský les, SKUEV0109 Rajtopíky, SKUEV1303 Alúvium Hrona, SKUEV0302 Ďumbierske Nízke Tatry, SKUEV0198 Zvolen, SKUEV0197 Salatín, SKUEV0164 Revúca, SKUEV0062 Priboj, SKUEV 0128 Rokoš, SKUEV0247 Rohy, SKUEV0398 Slaná, SKUEV0343 Plešivské stráne, SKUEV0363 Ťahan, SKUEV0346 Pod Strážnym hrebeňom, SKUEV0350 Brzotínske skaly, SKUEV0353 Plešivská planina, SKUEV0737 Palanta, SKUEV 0048 Dukla, SKCHVU009 Košická kotlina, SKCHVU013 Malá Fatra, SKCHVU025 Slanské vrchy, SKCHVU027 Slovenský kras, SKCHVU028 Strážovské vrchy, SKCHVU033 Veľká Fatra, SKCHVU036 Volovské vrchy, SKCHVU050 Chočské vrchy, SKCHVU023 Úľanská mokrad' , SKCHVU037 Ondavská rovina, SKCHVU014 Malé Karpaty, SKCHVU007 Dunajské luhy, SKCHVU016 Záhorské Pomoravie, SKCHVU029 Sysľovské polia, SKCHVU018 Nízke Tatry, SKCHVU022 Poľana, SKCHVU003 Cerová vrchovina – Porimavie, SKCHVU011 Laborecká vrchovina, SKCHVU005 Dolné Považie, SKCHVU021 Pôplie, SKCHVU031 Tribeč, SKCHVU020 Parížske močiare, SKCHVU035 Vihorlatské vrchy, SKCHVU012 Lehnice.

#### **4. ENVIRONMENTAL ISSUES, INCLUDING HEALTH ISSUES RELEVANT IN TERMS OF ASSESSED STRATEGIC DOCUMENTS**

Transport plays an important role in social and economic development of the State; however it also gives rise to negative aspects in respect of environment and health. Negative impacts are of different nature in phase of construction and operation of a new transport infrastructure.

Massive development of individual car transport at the expense of public transport after the year 1989 as well as the transfer of freight transport from railway to road transport presents a great impact on environment leading to congestions on trunk routes and in the towns with a significant concentration of inhabitants and production activities. Decreasing trend of capacities of public passenger transport leads to traffic collapses as well as to the rise of the time and economic losses. This unfavourable development in transport contributes to increasingly more significant impact on environment and residential zones as regard to the pollutant emissions and traffic noise.

Based on the modal split it can be stated that, in conditions of the Slovak Republic the road and railway transport belong to the critical modes of freight transport with a share of freight transport of 98.6% expressed in tonnes and 97.3% expressed in tonne-km in 2011. Inland waterway transport and air transport have neither significant share in the total amount of goods transported, nor in transport performance.

Current trend and direction of transport is mostly influenced by the fact that individual as well as freight road transport adapt to changing circumstances of economy at the expense of environmentally friendlier means of transport. Road transport in Slovakia is currently liberalised and presents approximately 70% of total performance in the transport market.

From the perspective of sustainability of transport system, it is necessary to reinforce the position of the passenger and freight railway transport and the intermodal transport. This objective may be achieved by the transfer of suitable specific carriage and goods types to insufficiently used (sometimes also insufficiently developed) infrastructure of these transport modes. Thus the release of congested roads would be achieved including the reduction of negative effects caused by development of road transport (traffic accidents, congestions, rapid deterioration of roads, high dependency on fossil fuels,



impacts on environment such as noise, vibration, emissions, land take when constructing the road infrastructure, etc.).

**Negative trends in transport**

- In the Slovak Republic, the unfavourable development in transport persists. The largest volume of goods is transported by the road freight transport;
- The decrease in number of carried persons in public mass transport - in the period 2000-2011, there was more than 44% decrease in number of persons carried by public road transport;
- In the cities and towns, there was a permanent increase in the share of the travelling by cars in the modal split.

**Significant environmental problems related to transport infrastructure construction**

- Agricultural and forest land take;
- Fragmentation of landscape and barrier effect;
- Destruction of habitats;
- Frequent impacts on protected areas and NATURA 2000 sites;
- Impacts on water sources;
- Impacts on quality of life during the construction.

**Significant environmental problems related to operation of transport infrastructure**

- Consumption of natural resources - energies;
- Air pollution;
- Greenhouse gas emissions;
- Increase in noise levels; noisy areas are usually also the areas with a high level of air pollution while it seems that one factor increases the negative effect of the second factor;
- Lasting barrier effect for migration corridors.

**Specific environmental problems of particular transport modes***Road transport*

- High share of pollutant emissions from road transport;
- Endangerment of road infrastructure by landslides.

*Railway transport*

- Contamination of railway bed, especially by petrol substances;
- Endangerment of railway infrastructure by landslides.

*Inland waterway transport*

- Hydromorphological effects of water transport constructions;
- Pollution of waters by waste and sewage water from vessels.

The status and trends of the development in specified areas are elaborated in chapter III.1. The most significant environmental problems have been also the subject matter for the establishment of environmental objectives confronted with objectives of SPRDI SR 2020.

## 5. ENVIRONMENTAL ASPECTS, INCLUDING HEALTH ASPECTS DETECTED ON INTERNATIONAL, NATIONAL OR OTHER LEVELS RELEVANT IN TERMS OF ASSESSED STRATEGIC DOCUMENTS AS WELL AS HOW THEY HAVE BEEN CONSIDERED WITHIN THE PREPARATION OF THE STRATEGIC DOCUMENT

Objectives of environment and health protection established on different levels of EU and Slovak Republic strategic documents represent an important background for making the reference framework for assessment of SPRDI SR 2020 impacts. With regard to character of the document, from perspective of assessing its impact on the environment and the health, important objectives of strategic documents are those that relate to the environmental consequences of the transport, the efficiency of transport services in the territory in the context of sustainability. In addition to THE abovementioned transport service, it is a question of the health condition of population, air protection, protection of the public against the noise and other risk factors and protection of nature.

### 5.1 EU Strategic documents

International documents creating currently the framework of EU policy in this area are as follows:

#### **EUROPE 2020 a strategy for smart, sustainable and inclusive growth (2010)<sup>18</sup>**

This strategy was adopted in 2010 to get over the crisis and prepare economy of European Union for the next decade. The strategy established key objectives to ensure smart, sustainable and inclusive growth. For the economy and transport the most decisive objective is so called target "20/20/20" concerning in particular the impacts of climate change:

- To reduce greenhouse gas emissions by at least 20% compared to levels in the year 1990; to increase the share of renewable energy sources in our final energy consumption by 20%; and to increase energy efficiency by 20%.

From these objectives following tasks result for Member States:

- To develop smart, sophisticated and fully interconnected transport and energy infrastructures and make full use of information and communication technologies;
- To ensure a coordinated implementation of infrastructure projects, within the EU Core network, that critically contribute to the effectiveness of the entire EU transport system;
- To focus on the urban dimension of transport where much of the congestion and emissions are generated.

Within the strategy, seven flagship initiatives have been adopted to catalyse progress under each priority theme. The flagship initiative called "A resource-efficient Europe"<sup>19</sup> aimed at the creation of the framework for policies to support the shift towards a low-carbon and resource-efficient economy. Such shift will help to:

- boost economic performance while reducing resource use;
- identify and create new opportunities for economic growth and greater innovation and boost the EU's competitiveness;
- ensure security of supply of essential resources;
- fight against climate change and limit the environmental impacts of resource use.

In line with the flagship initiative "A resource-efficient Europe", the general objective of the European Union Transport Policy is to help establish a system that underpins European economic progress, enhances competitiveness and offers high-quality mobility services while using resources more efficiently. In practice, transport has to use less and cleaner energy, better exploit a modern

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<sup>18</sup> COM(2010) 2020, final.

<sup>19</sup> COM(2011) 21, final.

infrastructure and reduce its negative impact on the environment and key natural resources like water, land and ecosystems. Curbing mobility is not an option.

#### **WHITE PAPER Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (2011)<sup>20</sup>**

White paper on Transport with a 2050 horizon contains 40 initiatives to achieve competitive and resource efficient transport system. It states the need to unify transport systems of the eastern and western parts of Europe, to fully reflect the transport needs of almost the whole continent as well as the need to reduce Europe's dependence on oil imports.

A vision for a competitive and sustainable transport system is to achieve 60% greenhouse gas emission reduction target in the context of growing transport and supporting mobility. This vision should be achieved in particular through developing and deploying new and sustainable fuels and propulsion systems and through optimising the performance of multimodal logistic chains, including by making greater use of inherently more resource-efficient transport modes. In order to achieve the vision 10 goals are established, of which, the following are most important from SPRDI SR 2020 perspective:

- Halve the use of "conventionally-fuelled" cars in urban transport by 2030; phase them out in cities by 2050;
- 30% of road freight transport over 300 km should shift to other modes such as rail or inland waterway transport by 2030, and more than 50% by 2050;
- By 2050, complete a European high-speed rail network.
- Triple the length of the existing high-speed rail network by 2030 and maintain a dense railway network in all Member States. By 2050 the majority of medium-distance passenger transport should go by rail;
- A fully functional and EU-wide multimodal TEN-T "core network" by 2030, with a high quality and capacity network by 2050 and a corresponding set of information services;
- By 2050, connect all core network airports to the rail network, preferably high-speed;
- By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020.

#### **WHITE PAPER - Adapting to climate change: Towards a European framework for action<sup>21</sup>**

This White Paper sets out a framework to reduce the EU vulnerability to the impact of climate change. Addressing climate change requires two types of response. Firstly we must reduce our greenhouse gas emissions (i.e. take mitigation actions) and in addition we must take measures to deal with the unavoidable impacts (adaptation actions).

Improving the resilience of existing transport infrastructure requires a common and coordinated approach for assessing the vulnerability of critical infrastructure to extreme weather events. Infrastructure projects which receive EU funding should take climate-proofing into account.

#### **An EU biodiversity strategy to 2020<sup>22</sup>**

Transport infrastructure development is directly related to main objective of the strategy:

- To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that, by 2020, compared to current assessments: (i) 100% more habitat assessments and 50% more species assessments under the Habitats Directive show an improved conservation status; and (ii) 50% more species assessments under the Birds Directive show a secure or improved status.

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<sup>20</sup> COM(2011) 144, final.

<sup>21</sup> COM(2009) 147, final.

<sup>22</sup> COM(2011) 244, final.

## 5.2 Strategic documents and national legislation

### Strategy, principles and priorities of the State Environmental Policy (1993) <sup>23</sup>

In respect of transport, the following principles are relevant:

- Modernisation of transport, reduction of negative impacts on environment through the decongestion of certain burdened roads;
- Reduction of emissions in line with international conventions;
- Wider use of fuels and means of transport not polluting the environment (e.g.: gas, electricity, unleaded petrol);
- Introduction the measures to support the retention of water and slowing down the runoff in particular from basins of deficient areas;
- Reduction of impact of noise, health affecting radiation, vibrations, electromagnetic field and thermal pollution on the public to the tolerable level;
- Prevention of biological diversity degradation, elaboration and realisation of rescue programmes of selected endangered species of fauna and flora; elaboration of National strategy of biodiversity protection, preservation and improvement of the state of special protected areas.

The first principle is directly linked with SD objectives. Other principles were considered when working on environmental objectives of the ER.

With regard to new trends and requirements of EU, the strategy of environmental policy is outdated to some degree. Therefore, the Government of the Slovak Republic established a task to prepare a new Environmental Strategy of the Slovak Republic. Background documents and analyses to ensure and elaborate the new Environmental strategy of the Slovak Republic should be made available till the end of 2013. After approving the new Environmental strategy, it will be necessary to ensure translation of its horizontal objectives into other sector policies, including the transport policy.

When establishing environmental objectives and assessing in the context of ER, the following national strategic documents have been taken into account:

- Principles of the State Soil Policy (2001) <sup>24</sup>;
- Updated Raw Material Policy of the Slovak Republic in the Area of Mineral Resources (2004) <sup>25</sup>
- Water Management Policy to 2015 (2006)
- Water Plan of Slovakia (2009) <sup>26</sup>
- Strategy for Reduction of PM<sub>10</sub> (2012) <sup>27</sup>
- National Strategy of Biodiversity Protection in Slovakia (1997) <sup>28</sup>;
- National Environmental Action Programme II, (NEAP II, 1999)
- Concept of Nature and Landscape Protection (2006) <sup>29</sup>
- Updated Programme of Protection of Slovak Wetlands for the period 2008 - 2014 <sup>30</sup>
- Updated Action Plan for Implementation of National Strategy of Biodiversity Protection in Slovakia 2003 - 2010 <sup>31</sup>

<sup>23</sup> Approved by Resolution of NR SR No. 339/1993 and Resolutions of Government of Slovak Republic No. 619/1993, 894/1993, and 531/1994.

<sup>24</sup> Approved by Resolution of Government of Slovak Republic No. 1141/2001.

<sup>25</sup> Approved by Resolution of Government of Slovak Republic no. 722/2004.

<sup>26</sup> Binding part of the Water Plan approved by Resolution of Government of Slovak Republic No. 279/2011 Coll.

<sup>27</sup> Approved by Resolution of Government of Slovak Republic No. 77/2013.

<sup>28</sup> Approved by Resolution of Government of Slovak Republic no. 231/1997.

<sup>29</sup> Approved by Resolution of Government of Slovak Republic No. 471/2006

<sup>30</sup> Approved by Resolution of Government of Slovak Republic No. 848/ 2007

<sup>31</sup> Approved by Resolution of Government of Slovak Republic No. 1209/2002

- Updated National Strategy of Biodiversity Protection 2012 - 2020 (draft)
- National Reform Programme 2013.

*New strategies that have to be considered in SPRDI SR 2020*

**Adaptation Strategy of the Slovak Republic to Adverse Impacts of Climate Change (draft 08/2013)**

Strategy is being prepared pursuant to initiative of Ministry of Environment of the Slovak Republic following the new development of climate change impacts in wider international context. The reason for this is a pressing need to improve and make the adaptation processes more effective in response to increasingly intensive manifestations and impacts of climate change. Final version of the document is expected in December 2013.

With regard to transport, the draft of strategy specifies adverse impacts of climate change on transport and proposes adaptation measures for individual transport modes.

The SPRDI SR 2020 and SRVOND SR 2020 do not address the context of the climate change, or the adaptation measures. Translation of the Strategy of Adaptation to Adverse Impacts of Climate Change into the transport sector policy will need to be realised through the higher level strategic document.

## **IV. CORE DATA ON ASSUMED IMPACTS OF ASSESSED STRATEGIC DOCUMENTS ON ENVIRONMENT, INCLUDING HEALTH**

### **1. TRANSPORT IMPACTS ON INDIVIDUAL COMPONENTS OF ENVIRONMENT, INCLUDING HEALTH**

This section addresses a general analysis of potential negative impacts on environment components. The scope of analysis was adapted so as to be consistent with criteria listed in Annex II of SEA Directive and cover all the areas required in that directive such as: population, human health, air, climate factors, soil, water, biodiversity, biota, material resources and cultural heritage.

Based on their complex evaluation, the objective of this analysis is to identify any significant impacts relevant for assessment on strategic document level. The nature of impact is listed in the evaluation taking the form of matrix filtered through the following criteria:

- duration period – construction, operation;
- primary, secondary;
- duration period – temporary, permanent;
- cumulativeness;
- synergy;
- mitigation through measures – can be mitigated by available measures or with difficulty;
- impact significance – significant or less significant (significance has been established pursuant to possibility to mitigate or minimize the impact).

In accordance with established environmental objectives, key questions have been formulated for further strategic assessment of significant impacts, through which compliance of proposed investment priorities with environmental objectives has been assessed.

#### **1.1 Impacts on settled territory**

The localisation of core and transport services shall be oriented at the centres of natural regions. Under the pressure of economic parameters of population effective access to the services, the private sector primary situates facilities providing for the services in centres of natural catchment (nodal) regions. However a public sector on the State level in some cases does not follow these principles. Within adequate capacity and quality arrangement, the transport infrastructure constructions providing for the access to the natural centres of catchment regions have the highest positive impact on the reinforcement of polycentric systems and life quality of their population. The main transport and settlement development axes of regions have been published in binding part of the KURS 2011; they have been documented in the ÚGCD SR and PKO SR.

The accessibility of superior transport infrastructure is an important indicator of transport service effectiveness in the SR territory in a nationwide context. The ÚGCD SR exactly evaluated the time accessibility of the motorway and expressway networks in Slovakia west-east and north-south interconnections. The west-east interconnection the motorway route D1 Bratislava – Žilina – Košice (46%) indicates the maximum values of parameters of the accessibility [% of population of the Slovak Republic within the 15 min accessibility isochrone] to the network of planned motorways and expressways shows; in north-south interconnection it is the motorway route Čadca – Žilina – Martin – Turčianske Teplice – Banská Bystrica – Šahy (16%) (if the route Čadca – Žilina – Trenčín – Bratislava, making up the part of the west-east interconnection, is not taken into account).

European cohesion policy of the Member States promotes the strengthening of interdependencies of settlement systems in border areas of the countries. The assessment of strengthening of the cohesion on the top settlement and transport level may be assigned to the hierarchical level of the SPRDI SR 2020 solution. The KURS 2011 as well as the land use planning documents of the V4+2 countries demonstrate the forming effect of three settlement agglomerations of European importance (i.e. Vienna, Budapest and Katowice) on Slovakia settlement. At the same time the stable and through



common State strengthen transboundary dependencies of agglomerations of Brno, Zlín and Ostrava cities in the Czech Republic are an important constituent of cross-border cohesion. The effect of equal importance and suitable to promote is also bound to the Krakow, Rzeszow and Miskolc agglomerations.

An effective use of existing or proposed transport infrastructure is an important component in the strategy of its development relating to the new areas take, many of them valuable agricultural lands or areas of considerable environmental value in Natura 2000 territories. In addition to the economic (costs of a new transport infrastructure) and operational (half empty expressways) factors also the fact that in terms of capacity and performance unjustified draft for a new transport infrastructure represents a non-negligible territory fragmentation. A negative example could be the expressways planned in rural areas in two lanes arrangement, parallel to the previous two lanes 1st class road, from which they should take over the traffic burden while it is predicted that by 2040 the proposal for construction of 4 lane expressway is unjustified in terms of capacity.

Tab. 18 Summary evaluation of impacts on settled territory

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Access to basic and transport services, to the market		X	X			X		X			X	
Effectiveness of transport services in the territory of the Slovak Republic		X	X			X		X			X	
Settlement continuity in border regions of neighbouring countries		X	X			X		X			X	
Effectiveness of capacity use of planned TI		X	X			X	X					X

#### Key questions for strategic assessment

- Do the SPRDI SR 2020 and SRVOND 2020 support the access to the basic and transport services, to the market?
- Does the SPRDI SR 2020 support the effectiveness of transport services in Slovakia?
- Does the SPRDI SR 2020 support the settlement cohesion with significant settlement systems abroad?
- Does the SPRDI SR 2020 support the effective use of the TI capacity taking into account the claims for take of new areas?

## 1.2 Impacts on population and public health

The transport has an adverse impact on population health in particular due to pollutant emissions, noise and traffic accidents. Concerning the modal split, the trend of dynamic growth of environmentally less friendly automobile transport, with which preconditions of noise and emission burden of urban agglomeration residents and at the same time negative impacts on traffic accidents are linked, will continue in Slovakia.

The noise from transport is the most significant of all risk factors influencing the quality of life and human health. The noise from transport affects especially areas in the vicinity of exposed transport routes. Based on the healthcare knowledge the noise level of 65 dB(A) represents a limit from which a vegetative nervous system is being adversely affected. The road transport followed by railway transport is considered to be the greatest producer of noise.

The criterion for assessing the noise effects in the Slovak Republic is the Decree of the Slovak government No. 549/2007 Coll., which outside in the resident zone of area III category – in the vicinity of motorways, I. class roads and II. class roads, local roads with mass transport, railroads, airports and in urban centres determines the following maximum permissible equivalent noise levels:

Tab. 19 Permissible values of environmental noise (area category III)

Time interval	Noise from transport $L_{Aeq,p}$ (dB)		
	Surface and inland waterway	Railway	Air
By day (06:00 - 18:00)	60	60	60
In the evening (18:00 - 22:00)	60	60	60
By night (22:00 - 06:00)	50	55	50

A significant impact of transport on human health presents air pollution caused by emissions. Exhausts of motor vehicles contain hundreds of chemicals in different concentrations and with different effects on health. In respect of public health the most significant pollutant are considered the nitrogen oxides, particulate pollutants and polycyclic aromatic hydrocarbons (PAH), while some of which are carcinogenic (e.g. benzo(a)pyrene). Emissions of polychlorinated dibenzofurans (PCDF) and polychlorinated dibenzodioxins (PCDD) have a carcinogenic affect as well and they are dangerous already in trace concentrations.

One of the most significant transport pollutants with proven negative impacts on public health are emissions of particulate matter in the air caused by operation of motor vehicles (combustion of fuels, abrasion of tyres, brake and clutch linings, carriage surface, etc.). Their dangerousness does not lie only in their mechanical features, but also in the content of risk organic and inorganic substances (polyaromatic hydrocarbons, heavy metals, nitrates, ammonium ions, etc.). Currently, among particulate substances a great attention is paid especially to particles of size below 10  $\mu\text{m}$  ( $\text{PM}_{10}$ ), which can penetrate into respiratory system (fraction that can be inhaled).

A problematic group of pollutants are the nitrogen oxides. More than 90% of nitrogen oxides are emitted in a form of nitrous oxide ( $\text{N}_2\text{O}$ ). This gas is quickly transformed into nitrogen dioxide ( $\text{NO}_2$ ) in the air.  $\text{N}_2\text{O}$  emissions damage ozone layer and represent also the so-called greenhouse gas causing climatic change. Road transport has a 51% share in emissions of nitrogen oxides. Nitrogen dioxide  $\text{NO}_2$  acts as an irritant gas. Approximately 80-90% is absorbed by respiratory system. Nitrogen oxides cause mild to severe bronchitis or pneumonia.

Pollutants limit concentrations in the air are determined by the decree of MPŽPRR SR No. 360/2010 Coll. on air quality.

Tab. 20 Limit values for human health protection according to the Decree of MPŽPRR SR No. 360/2010 Coll.

Pollutant	Averaged period	Limit value	Tolerance threshold
$\text{NO}_2$	1 hour	200 $\mu\text{g}/\text{m}^3$ cannot be exceeded more than 18 times per 1 year	N/A
	calendar year	40 $\mu\text{g}/\text{m}^3$	N/A
CO	8 hours	10 000 $\mu\text{g}/\text{m}^3$	60%
Particulates $\text{PM}_{10}$	24 hour	50 $\mu\text{g}/\text{m}^3$ cannot be exceeded times per 1 year more than 35 times per 1 year	50%
	calendar year	40 $\mu\text{g}/\text{m}^3$	20%
$\text{SO}_2$	1 hour	350 $\mu\text{g}/\text{m}^3$ cannot be exceeded more than 24 times per 1 year	150 $\mu\text{g}/\text{m}^3$ , i. e. 43%
	1 day	125 $\mu\text{g}/\text{m}^3$ cannot be exceeded more than 3 times per 1 year	N/A
Benzene	calendar year	5 $\mu\text{g}/\text{m}^3$	N/A
Lead	calendar year	0,5 $\mu\text{g}/\text{m}^3$	100%

Tab. 21 Summary evaluation of impacts on population and public health

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Generation of noise by transport during construction	X	X	X		X		X		X			X
Generation of noise during operation		X	X			X	X		X		X	
Emissions from transport during construction	X	X	X		X		X		X			X
Transport emissions during operation		X	X			X	X			X	X	
Risk of traffic accidents		X		X		X				X	X	
Barrier effect		X	X			X	X		X			X
Visual impacts	X	X	X			X			X			X

#### Key questions for strategic assessment

- Do the SPRDI SR 2020 and SRVOND 2020 support the noise protection?
- Do the SPRDI SR 2020 and SRVOND 2020 promote the reduction of air pollution burden in residential areas?
- Do the SPRDI SR 2020 and SRVOND 2020 promote the reduction of traffic accidents?

### 1.3 Impacts on air and factors affecting climate change

In addition to the impacts on human health, the production of motor vehicle emissions significantly contributes to global consequences of air pollution such as acidification and climate change as a result of greenhouse gases (especially CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O).

In the Slovak Republic in period 1881 - 2009 the trend of growth of the average year temperature of air by 1.6 °C was recorded as well as decrease in average atmospheric precipitation in average by 3.4% (in southern Slovakia the decrease was more than 10%, in north and northeast growth up to 3%). A significant decrease in relative humidity of the air was also recorded (up to 5%) as well as decrease in snow cover almost in the whole territory of the Slovak Republic (in the higher mountain zones was a slight increase). Also the characteristics of potential and actual evaporation, soil humidity, global radiation and radiation balance prove that especially south of the Slovak Republic gradually dries up (potential evapotranspiration grows and soil humidity increases); in characteristics of solar radiation however, there were no substantial changes (except for transitional increase in period 1965 - 1985). Variability of climate is increasing especially the rainwater variability.

In the last 15 years an average daily precipitation has significantly grown, which resulted in increase in risk of local floods in different areas of the Slovak Republic. On the other hand, in the period 1989 - 2009 there was more often than before local or overall draught caused in particular by long periods of relatively warm weather with small precipitation in some part of vegetation period.

An analysis in chapter III.1.3 shows that road transport represents a dominant share in overall production greenhouse gases from transport with 96.32% of CO<sub>2</sub> production, while this gas being a dominant part of greenhouse gases. Within the strategic environmental assessment the key question therefore is how this strategic documents support development of environmentally friendlier transport modes such as railway, inland waterway, public passenger and non-motorised transport. The evaluation of this objective is described in detail within the assessment of development of separate transport modes in chapter IV.2.

Tab. 22 Summary evaluation of impacts on air and factors affecting the climate change

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Air pollution by harmful pollutants		X	X			X	X			X	X	
Climate change resulting from greenhouse gas production		X		X		X	X			X	X	

#### Key questions for strategic assessment

- Do the SPRDI SR 2020 and SRVOND 2020 promote the reduction of emission production?
- Do the SPRDI SR 2020 and SRVOND 2020 consider the need to decrease the production of greenhouse gas emissions?

### 1.4 Soil and rock environment

When implementing the projects of transport infrastructure the key impact on land is a permanent agricultural and forest land take as well as temporary land take in the phase of construction of access roads, manipulating stripes, construction sites, dumpings of humus, etc. In case of motorway construction, the land take amounts to approximately 3 ha per 1 kilometre of the length.

From societal viewpoint the land take is necessary for transport infrastructure construction. When taking and protecting agricultural land, it is necessary to proceed in line with the Act No. 220/2004 Coll. on protection and use of agricultural land<sup>32</sup>. Under this Act, all agricultural land is classified into one of the nine quality groups based on the code of the pedologic-ecological units (BPEJ). When using agricultural land for non-agricultural purposes, its protection is ensured through protection of agricultural land of highest quality in cadastral area according to BPEJ code. The investments of strategic and economic importance approved by resolution of Slovak government (such as motorways and expressways), are the reason for possible take of protected agricultural land in justified extent. When selecting the variants of transport infrastructure routes it is necessary to consider the areal distribution of the most quality agricultural land in given territory.

During the operational period of transport infrastructure constructions, no significant impacts on land quality are foreseen. Potential contamination of land as a result of accident connected with fuel or transported chemicals leakage represents an exemption.

Transport, especially the road transport can affect also a health condition of the forest. Ever since 1995 the health condition of forests has been observed to be improving, while health condition of deciduous forests can be considered as stabilised. The intensity of damage is significantly differentiated territorially also depending on an altitude. The worst condition is in the upper forest line where a transport operation does not have an impact. Apart from harmful pollutants the health condition of the forest is also affected by pollution substances especially chlorides emerging from the winter maintenance of roads.

<sup>32</sup> Act No. 220/2004 Coll. on protection and use of agricultural land and on amendment of Act No. 245/2003 Coll. on integrated prevention and control of environment pollution and on amendments of some acts, as amended by later regulations

Tab. 23 Summary evaluation of impacts on soil and rock environment

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Permanent take of agricultural and forest land	X		X			X				X	X	
Temporary take of agricultural and forest land	X		X		X				X			X
Potential contamination and other degradation of soil during construction	X		X		X				X			X
Contamination of soil during operation		X		X		X	X			X		X

### Key questions for strategic assessment

- Is the land protection sufficiently secured within the implementation of the SPRDI SR 2020 a SRVOND 2020 investment priorities?

## 1.5 Water

The implementation of transport infrastructure projects may in general have an impact on quality and regime of surface waters and groundwaters as well as run off situation. From the quantitative point of view it is especially the possibility of contamination of waters by oil during accidents of construction mechanisms and transport machinery. Critical points are the crossings of surface courses, their adjustments and relocations.

From hydrological point of view a tendency to drain waters from surface run off from surface of roads and other paved areas through sewerage directly into recipients, which is negatively reflected in the development of flood situations. When designing the road drainage it is therefore necessary to consider possibility of draining rainwater through draining systems back to groundwaters taking into account local circumstances.

With regard to flood protection when constructing the transport infrastructure it is necessary to preserve and eventually improve run off situation of the given area. It is necessary to prevent reduction of flow profile and/or construction of obstacles standing in the way of big water. When projecting it is therefore necessary to propose placing a body and objects of roads based on hydrotechnical calculations.

In the period of road operation the surface waters can be polluted by direct draining of waters from run-off from carriage-way to recipient. Vulnerability of surface waters depends on the size of the flow rate. Impact on water quality in the surface course is in general of temporary nature, with regard to impact on water ecosystems however, the nature of impact is severe and irreversible. The accumulation of certain contaminants in the bottom sediments (heavy metals, organic substances) has a long-term effect. When proposing drainage of the carriage-way and other paved areas it is necessary to consider these aspects.

Transport is one of the anthropogenic activities contributing to water pollution from atmospheric deposition ( $\text{NO}_x$  and  $\text{NH}_y$ ).

Transport is also one of the most often causes of extraordinary deterioration of waters (in 2008 there were 38 cases of accidents and other events resulting in extraordinary deterioration of waters).

Affecting the regime of groundwaters is possible especially in case of construction interference with aquifer. This type of interference is common especially when building deep cuttings or tunnels. Lowering the level of groundwater can directly affect yield of groundwater sources and indirectly also habitats dependent on water regime.

A special category of impact is the collision of project with water protected areas – protected water management areas, water sources and their protection zones. In these cases it is necessary to follow the conditions laid down in regulations or decisions establishing these areas.

A specific position is designated for sources of natural healing or natural mineral waters<sup>33</sup>, which are also protected by protection zones. In most cases the existence of such waters is connected to deep hydrogeological structures, which are protected from pollution by sufficiently thick layer of less permeable sediments. A potential risk might be drainage of rock massifs when building tunnels, which can intervene in the area of creation and forming of mineral and thermal waters. Ensuring the protection of these sources depends on concrete case and it is necessary to address it on EIA level or based on additional exploration when applicable.

The legislative basis of water protection is the Act No. 364/2004 Coll. on waters as amended by later regulations. It is necessary to put a special focus on establishing law transposing Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive - WFD).

With regard to WFD requirements the inland waterway transport projects shall be generally characterised by the controversial position. The waterway transport is on one hand considered as the "greenest" transport" on the other along with dam construction on water courses and flood measures it is considered as one of the main forces that were a reason for anthropogenic interventions to river system, especially hydromorphological changes. An environmental objective of the Slovak Water plan is to eliminate disturbances of longitudinal continuity of rivers and habitats at the level consistent with criteria of good ecological status/potential.

With regard to the impact of transport infrastructure on water situation and based on the abovementioned analysis, we consider protection of water management areas (including mineral and thermal waters) and preservation of good ecological potential to be the most significant objectives when building waterway transport constructions. For their assessment we suggest to apply the following criteria when assessing further impacts on water situation:

- Crossing of protected water management areas;
- Crossing of protection zones of water supply sources and sources of natural healing and mineral waters;
- Crossing of basins of water supply courses;
- Hydromorphological changes of water courses.

Tab. 24 Summary evaluation of impacts on surface and ground waters

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Impact on run-off conditions in the area		X		X	X		X	X	X		X	
Pollution of surface waters by running off the rainwater from paved areas		X	X		X		X		X			X
Pollution of waters from atmospheric deposition		X	X			X	X	X		X		X
Potential endangerment of quantity of water sources by construction of tunnels and cuttings	X			X		X	X		X		X	
Potential endangerment of the quality of water supply sources	X	X		X	X				X		X	
Potential accident pollution of surface waters and groundwaters	X	X		X	X				X		X	
Hydromorphological alterations of surface water bodies due to water infrastructure constructions	X		X			X			X		X	

<sup>33</sup> Act No. 538/2005 Coll. on natural healing waters, natural healing spas, spa spots and natural mineral waters and on amendments of some acts as amended by later regulations.



**Key questions for strategic assessment**

- Can the implementation of SPRDI SR 2020 and SRVOND 2020 significantly affect the water sources?
- Can the implementation of SPRDI SR 2020 and SRVOND 2020 significantly affect the sources of natural healing and mineral waters?
- Can the implementation of SPRDI SR 2020 and SRVOND 2020 cause significant hydromorphological alterations of surface water bodies?

**1.6 Nature and landscape protection**

Transport constructions and their operation have proven negative impacts on biodiversity, protected areas and landscape. An increase in the transport burden in the area, a density of transport corridors and a traffic volume increase enhance the negative impacts and contribute to the cumulative effect along with activities performed in this intensively used area.

The implementation of transport infrastructure projects may affect the fauna, flora and habitats in the territory concerned and in its vicinity. Impacts on the fauna, flora and habitats may be in general differentiated as follows:

- Primary impacts - active in particular during construction (destruction of habitat, cutting of the trees with protection function in intensively used agricultural landscape);
- Secondary impacts - active during both the construction and operation (killing animals, fragmentation of habitats, limitation of migration, pollution caused by sanding materials, emissions from motor vehicles, noise, light, change of water regime, climate change);
- Tertiary impacts - active during operation (penetration of new often invasive species into environment, settlements development, technical infrastructure development, industry and recreation development in accessible areas).

A direct impact shall be the destruction or physical eradication of habitats during construction. This impact cannot be mitigated. The construction causes fragmentation of landscape and habitats, where the transport infrastructure constitutes barriers for migrating wild animals. The barrier effect decreases movement capacity in landscape and has serious ecological consequences such as change of animal populations, creation of metapopulations, decrease in the biological diversity and increase in the risk of endangered species extinction. Animal species within these small and isolated areas have limited food sources, partner selection a movement conditions. Small and isolated populations are prone to extinction due to inbreeding. Potentially most endangered are some species of big mammals especially beasts. Smaller mammals are not significantly affected by the existence of closed roads. Their populations inhabiting sections defined by closed road network have sufficient size and the island effect is not so strong signified. Furthermore unlike bigger animals, small mammals have enough opportunities in form of small holes to cross the barrier.

The endangerment of biodiversity caused by fragmentation of the area is relevant in connection with the aggravation of transverse movement capacity through transport constructions caused by increased traffic volumes. Modernised transport infrastructure increases the barrier effect by increasing both traffic volumes and speed. This is followed by a greater risk of collision with animals migrating in search for food and contributes to mortality of animals and physical loss of subjects. Relatively often these animals are killed: hare, vole, weasel, hedgehog, big species of ungulates and carnivores (stag, deer, boar, otter, bear). The most collisions of animals with trains and automobiles occur in the points of crossing or approaching the migration corridors. The maximum rate of accidents is in the road sections crossing forest complexes or along the forest line.

The mortality of certain groups of animals (e.g. amphibians) regularly migrating in reproduction period is extraordinary high in heavily burdened transport sections. Without special technical measures (subways, navigation walls, etc.) there is a risk of extinction of whole populations.

The fragmentation of habitats is one of the significant factors contributing to biodiversity loss and disturbance of eco-systems. The fragmentation of populations and habitats is a factor increasing the risk of population extinction with regard to the division of populations into smaller parts separated by areas without flora. A construction of the infrastructure belongs to activities that traditionally cause such a fragmentation. Development of sustainable transport shall also mean the harmonisation of demands on infrastructure construction with environmental requirements so that the new initiatives

have to be implemented so as to induce minimum negative impact on ecosystems and biodiversity. At the same time however, initiatives to increase the habitat connectivity in areas with existing infrastructure (e.g. building eco-ducts, layout of glass surfaces around motorways, protection elements on electric power lines) will be proposed and implemented.

Noise and lighting burden in the motorway vicinity will disturb wild animals. The stress effect of transport noise is reflected in condition and reproduction potential of animal species. Changes in behaviour under stress have been observed. Among other negative externalities affecting growth and development processes in plant and animal species are emissions from the transport, environment dustiness, chemical substances from salting.

A degradation of habitats is caused by spreading of ruderal and invasive species of plants along the roads, which is conditioned by three mechanisms: the change of habitats circumstances, the facilitation of other species invasion after having displaced the genuine species and the facilitation of easy movement through animals or humans. A change in the composition of species in the area of road construction as well as the plantation of non-original species resistant to emissions but with a significant invasive quality occur.

The construction and modernisation of transport networks have impacts on the water ecosystems. The construction of roads in an uneven terrain requires bypasses, relocations of water courses and strengthening of riverbeds through the technical adjustments. There are problems such as physical damage or destruction of habitats, mechanical disturbances of water ecosystems in case of relocation of courses (crossings, courses opacity), loss of natural sections due to forced regulation, cutting of bank plants, shortening of water courses, local fastening of flow rates and the degradation of quality of bank ecosystems. Conditions in spawning areas are deteriorating. Culverts are common barriers for fish migration. The construction of roads increases the amount of sediments in the water courses due to land erosion.

Construction of transport infrastructure in the protected areas can seriously affect the integrity of protected areas and harm objects of its protection. Ensuring protection, mitigating impacts and proposal of measures in cases there is no other routing possible, is addressed at EIA level.

A criterion of landscape protection includes impacts on the landscape character and integrity especially in areas with rare landscape scenery. Transport constructions may disturb the landscape character and induce urbanisation of wild landscape. There can be interferences with landscape character as a result of large-scale terrain modifications when building embankments and cuttings, masts, bridges, and flyover crossings. Mass displacements are changing the landscape and new anthropogenic habitats emerge.

With regard to impacts of transport infrastructure the most significant objectives are the protection of special protection areas in protection degree 2 to 5 and NATURA 2000 sites, preservation of ecological stability of the landscape and its capacity and minimisation of impacts on biodiversity. Following criteria were applied within the assessment:

- Interference with protected areas in protection degree 2 to 5;
- Interference with Natura 2000 sites;
- Crossing of TSES elements and migration corridors.

Tab. 25 Summary evaluation of impacts on biodiversity and nature and landscape protection

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Impacts on protected areas and Natura 2000 sites	X	X	X	X		X	X	X	X		X	
Direct loss of habitats	X		X			X				X	X	
Impacts on the integrity of landscape	X			X	X	X				X		X
Impacts on the passability of migration corridors	X	X		X	X	X	X		X		X	
Affecting biodiversity by stress factors (spread of invasive species, noise, emissions)	X	X		X		X				X	X	
Impacts on population status fragmentation, isolation and mortality	X	X		X	X	X	X			X	X	

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Impacts on the scenery		X		X		X			X			X

#### Key questions for strategic assessment

- Is there a contact due to SPRDI SR 2020 and SRVOND 2020 with protected areas with protection degree 2 to 5 in the national system of protected areas?
- Is there a contact due to SPRDI SR 2020 and SRVOND 2020 with NATURA 2000 sites?
- Are any TSES elements affected due to SPRDI SR 2020 and SRVOND 2020?

### 1.7 Cultural heritage

The criterion includes impacts on transport infrastructure construction and following operation on material cultural and historical monuments and memorabilities, archaeological sites, paleontological sites and significant geological sites. It does not include other categories of material heritage such as the book fund, archive fund or cultural heritage of non-material nature, which are not expected to be affected by SD implementation.

In the phase of evaluation of SPRDI SR 2020 and SRVOND 2020 objectives, it is not possible to evaluate the impacts on cultural heritage in detail, as cultural monuments and other parts of cultural heritage are bound to a concrete location and/or territory. In general a beneficial impact on transport infrastructure development can be stated when dealing with project relieving traffic volumes in residential zones where cultural monuments are endangered by vibrations and emissions from the transport.

However the cultural monuments can be directly endangered by transport infrastructure construction. This category of endangerment includes in particular archaeological sites, especially with uncover archaeological finds. This issue has to be given extraordinary attention when preparing projects of transport infrastructure, when it is possible to mitigate the impacts through the selection of appropriate variants.

Whereas a systematic archaeological research has not been performed in the transport infrastructure corridors so far it may be assumed that it is possible to uncover unknown archaeological finds at the construction site. Therefore it is necessary to contact the authorities of monument protection in the phase of preparation. A release of a planning decision and a construction permit for separate constructions is subject to releasing a binding position of the Monuments board of the Slovak Republic under the Article 30 (4) of the Monument Act following the Article 41 (4) of the Monument Act.

Impacts on the cultural heritage are evaluated as less significant as it is possible to mitigate them by consistently fulfilling the requirements of the Act No. 49/2002 Coll. on protection of monument fund as amended by later regulations and the Building Act.

Tab. 26 Summary evaluation of impacts on cultural heritage

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Impact of TI construction on cultural heritage	X		X		X				X			X
Impact of TI operation on cultural heritage		X		X		X	X			X		X

#### Key questions for strategic assessment

- Can the implementation of SPRDI SR 2020 and SRVOND 2020 significantly affect the cultural heritage?

## 1.8 Material resources and impacts related to their usage

Impact on material energetic resources is adversely affected by trends outlined in chapter III.1.8, in which a gradual transfer from mass to individual transport as well as from railway to road transport dominates. Another aspect related to transport infrastructure development is the efficiency of raw materials resources and mitigation of impacts of the mining and the carriage of raw materials when implementing the projects.

Another aspect related to transport infrastructure development is the efficiency of raw materials resources and mitigation of impacts of the mining and the carriage of raw materials when implementing the projects. With regard to the effective use of resources the issue of maximum use of materials gained at the construction is of importance. This includes primary materials from extractions from cuttings and tunnels and construction waste e.g. from demolition of buildings or objects of technical infrastructure. When upgrading the railway infrastructure and infrastructure of tramway lines a great volume of usable waste from removal of track-bed rises. Efficient use of gained materials may reduce also impact on other parts of environment, where otherwise dumping would emerge resulting in negative impact on relief, land take and destruction of habitats.

When extracting the raw materials it is necessary to use existing open deposits of raw materials as far as possible, and open new deposits only when it is necessary. In such a case it is necessary to ensure their assessment by EIA process ahead. Another negative impact of construction is the carriage of raw materials. This has to be optimised with regard to transport distances and routes, so as it has as minimum impact on affected population as possible. Similarly it is necessary to situate in advance the facilities of concrete plants and asphalt plants, as their operation is also subject to the assessment within the EIA process.

Tab. 27 Summary evaluation of impact on natural resources

Impact	Construction	Operation	Primary	Secondary	Temporary	Permanent	Cumulative	Synergy	Mitigable	Hardly mitigable	Significant	Less significant
Consumption of energy resources		X	X			X	X			X	X	
Consumption of non-renewable resources of raw materials	X		X		X				X			X
Ineffective use of waste as source of raw materials	X			X	X				X			X

### Key questions for strategic assessment

- Do the SPRDI SR 2020 and SRVOND 2020 promote reduction of demand for energetic resources?
- Do the SPRDI SR 2020 and SRVOND 2020 promote efficient use of raw materials and waste resources?

## 2. DETERMINATION OF ENVIRONMENTAL OBJECTIVES OF THE ENVIRONMENTAL REPORT

Based on an analysis of current environmental problems and significant impacts related to the transport, an analysis of horizontal and sectoral policies, strategies and concepts concerning the problem of transport and relevant legal regulations related to separate environment and health components, ER objectives covering key environmental aspects have been formulated. ER objectives are listed in the following table.

Tab. 28 Environmental objectives of the Environmental Report

Area	Objective
Transport aspects in relation to the residential area	To ensure the access to basic and transport services and to the market
	In case of SPRDI SR 2020 to ensure efficient transport services within the nationwide context; in case of SRVOND SR 2020 to ensure efficient transport services within the regional and local context
	To contribute to the cohesion of the settlement in SR with significant settlement systems abroad
	To accept the principles of an efficient use of the capacity of TI
Public health	To reduce the noise pollution effect on population
	To reduce the level of air pollution in residential areas
	To increase the safety of transport
Air and climate factors	To reduce the production of emissions from transport
	To reduce the production of greenhouse gas emissions
Soil and rock environment	To minimise agricultural and forest land take
	To prevent risks arising from the instability of rock environment
Water	To prevent deterioration of the ecological and chemical status of waters
	To limit interference with protected water management areas
	To ensure the flood protection of the territory
Biodiversity and OP	To ensure the protection of valuable parts of nature and functionality of ecosystems
	To ensure the integrity of Natura 2000 network
Landscape protection	To sustain the environmental stability of the landscape
	To preserve integrity of landscape and its scenery value
Cultural heritage	To protect cultural heritage
Material resources	To increase energy resources efficiency
	To use the material resources reasonably, prevent waste production

Abovementioned ER objectives have been confronted with SPRDI SR 2020 and SRVOND SR 2020 visions, objectives, priorities and measures defined within individual transport systems. The selection of indicators has been performed with regard to the TERM list elaborated by the EEA Copenhagen for the EU Commission as the file of indicators to support the procedure and efficiency of integration strategies in the framework of transport and environment.

### 3. DETERMINATION OF THE IMPLEMENTATION VARIANT OF ASSESSED STRATEGIC DOCUMENTS AND THE ASSESSMENT PROCEDURE

Within the SPRDI SR 2020 the comprehensive list of potential projects has been compiled; these projects have been further analysed with regard to their preparedness, necessary investment costs, schedule, economic effectiveness, etc. Green, yellow and red projects have been put into the project pipeline of assessed strategic documents. An important parameter enabling the classification of the project in this category (so called green projects) has been the degree of preparedness allowing the implementation of particular project within the period of 2014-2020 (2023). The methodology has been set-up towards the identification of apparent, indisputable projects implementable during this period. Other projects (yellow, red) have to be further processed in detail so as their relevance in the context with their possible implementation may be demonstrated.

Green, yellow and red projects have been included in project pipeline of assessed strategic documents. Within the phase II of the SPRDI SR 2020 preparation the assurance of missing input data and use of complex methodical procedure for the project assessment has to be accentuated while the multicriteria analysis will be used. In comparison with the phase I of the preparation then it will be possible to compile the list of prioritising projects including reflection and harmonisation of horizontal modal interferences. Implementation variants are in principle named in reservoirs of projects and are presented as the Annexes to the SPRDI SR 2020 and SRVOND SR 2020. Such variants represent an assumed state when the particular transport infrastructure shall be put into operation (with no regard to their justification or priority - green, yellow and red projects).

Detailed description of determination of an implementation variant, in the context of projects which are the parts of the design plan and the project pipeline, is set out in chapter IV.5.



Tab. 29 Expected status after completion of transport infrastructure under the SPRDI SR 2020 implementation variant

Infrastructure measure of SPRDI SR 2020	Hierarchy level	Implementation variant according to SPRDI SR 2020 by 2020
<b>Road transport</b>		
Completion of D1 motorway	Planned TEN-T core network	D1 Bratislava - Trnava extension to 6 lanes including new interchanges D1 Hričovské Podhradie - Lietavská Lúčka - Dubná Skala, feeder Lietavská Lúčka - Žilina D1 Turany - Hubová - Ivachnová D1 Studenec - Beharovce (crossing completion), feeder Spišská Nová Ves II. Stage D1 Prešov západ - Prešov juh, Budimír - Bidovce D1 Bidovce - Dargov - Pozdišovce, feeder Michalovce D1 Pozdišovce - state border SR/Ukraine by 2022 D1 Beharovce - Branisko, 2 <sup>nd</sup> Profile (Branisko tunnel) by 2025
North-south interconnection to Poland and Czech Republic	Planned TEN-T core network	D3 state border SR/Poland - Skalité - Svrčinovec - Čadca/Bukov D3 Čadca Bukov - Oščadnica, 2 <sup>nd</sup> profile (tunnel Horelica) by 2023 D3 Oščadnica - Kysucké Nové Mesto - Žilina/Strážov
North-south interconnection in Eastern Slovakia	Planned TEN-T comprehensive network	R5 Skalité - state border SR/Czech Republic
East - west communication axis in Central Slovakia	Planned TEN-T comprehensive network	state border SR/Poland - Hunkovce - Ladomirová, Svidník - Hanušovce nad Topľou - Kapušany - Prešov northern bypass R2 Chocholná D1 - Mníchova Lehota - Ruskovce - Žiar nad Hronom R2 Zvolen západ - Ožďany - Rožňava - Jablonov nad Turňou - Košice Šaca - Košické Oľšany
North - south communication axis in Central Slovakia, route R3	Planned TEN-T comprehensive network	R3 state border SR/Poland - Dolný Kubín - Hubová (+concurrence with D1 Hubová - Martin)
	Planned TEN-T core network	R3 Martin - Šášovské Podhradie - (+concurrence with R1 Šášovské Podhradie - Zvolen) R3 Zvolen - Šahy by 2022
North - south communication axis in Central Slovakia, route R3-R1-R3	Planned TEN-T comprehensive network	R3 state border SR/Poland - Dolný Kubín - Hubová (+concurrence with D1 Hubová - Ružomberok) Ružomberok - Banská Bystrica
	Planned TEN-T core network	R3 Zvolen - Šahy by 2022
Road network in Bratislava agglomeration	Planned TEN-T comprehensive network	D4 Bratislava Jarovce - Bratislava Rača D4 Bratislava Rača - Záhorská Bystrica - Devínska Nová Ves - border SR/Austria by 2022
	Outside TEN-T	R7 Bratislava Prievoz - Dunajská Lužná - Dunajská Streda
Completion of priority axis west-east of Slovakia	Planned TEN-T core network	R6 state border SR/Czech Republic - Mestečko - Púchov
Development of the I. class road network and expressway network outside TEN-T	Outside TEN-T	R7 Dunajská Streda - Nové Zámky - Lučenec R8 Nitra - Brezolupy Construction of new sections of I. class roads Upgrading and improvement of safety of I. class roads
Infrastructure measure of SPRDI SR 2020	Hierarchy level	Implementation variant according to SPRDI SR 2020 by 2020
<b>Railway transport</b>		
Upgrading of TEN-T network	Planned TEN-T core network	Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation (included in TEN-T core network for passenger transport) ŽSR, Upgrading of railway line Púchov - Žilina for line speed up to 160 km/h - stage I., section Púchov - Považská Teplá ŽSR, Upgrading of railway line Púchov - Žilina for line speed up to 160 km/h - stage II., section Považská Teplá /outside/ - Žilina/outside/ Upgrading of the railway line Žilina - Košice, section Liptovský Mikuláš - Poprad Tatry (outside), implementation of sections Poprad-Tatry - Lučivná and Paludza - Liptovský Hrádok Upgrading of the railway line Žilina - Košice, section - Poprad Tatry (outside) - Krompachy, implementation of the section Spišská Nová Ves - Poprad-Tatry Upgrading of the railway line Žilina - Košice, section Kysak - Košice, implementation ŽSR, Bratislava node ŽSR, Completion of marshalling yard in Žilina - Teplička and follow up railway infrastructure in Žilina node, implementation

Infrastructure measure of SPRDI SR 2020	Hierarchy level	Implementation variant according to SPRDI SR 2020 by 2020
		Košice - Kostofány nad Hornádom (pilot structure for the integrated rail transport), implementation
		Čierna nad Tisou, upgrading of node, implementation
		Upgrading of corridor state border Czech Republic/SR - Čadca - Krásno nad Kysucou (outside), railway line, implementation
	Planned TEN-T comprehensive network	Electrification of the track Haniska pri Košiciach - Moldava nad Bodvou, implementation
		Zvolen - Filákov, electrification of the track, implementation
		Electrification and optimisation of the line Filákov - Moldava nad Bodvou, implementation
Technological ensuring of interoperability	Planned TEN-T core network	Deployment of ERTMS in the corridor No. IV Kúty - Bratislava, including the Bratislava node (ETCS L2 + GSM R), implementation by 2021
	Planned TEN-T comprehensive network	Introduction of the ERTMS in the Corridor No. IV Bratislava - Nové Zámky - Štúrovo / Komárno, including Bratislava node (ETCS L2 + GSM R), implementation by 2021
Electrification of major lines	Outside TEN-T	Bratislava Nové Mesto - Dunajská Streda - Komárno, double-tracking and electrification of the track, project documents
		ŽSR, Electrification of the track Bánovce nad Ondavou - Humenné, implementation
		ŽSR, Electrification and optimisation of the line Leopoldov - Nitra - Šurany, implementation
Intermodal transport		
Intermodal Transport Terminals	Planned TEN-T comprehensive network	ŽSR, Intermodal Transport Terminal Košice, stage I. of construction
		ŽSR, Intermodal Transport Terminal Leopoldov, stage I. of construction
	Planned TEN-T core network	ŽSR, Intermodal Transport Terminal Bratislava, stage I. of construction
		ŽSR, Intermodal Transport Terminal Žilina, stage I. of construction
Air transport		
Upgrading, construction and maintenance of airport infrastructure within the TEN-T	Planned TEN-T core network	Upgrading and extension of RWY 13/31 at M. R. Štefánik airport in Bratislava
	Planned TEN-T comprehensive network	Upgrading of RWY and TWY at Poprad - Tatry airport
		Terminal for air cargo services at Košice airport
		Hangar for aircrafts of code mark "C" a "D" at Košice airport
Inland waterway transport		
Technical measures to ensure required parameters of fairway of Danube waterway	Planned TEN-T core network	Implementation of technical measures to remove barriers and resolving of navigability of the Danube river in km 1880,260 - 1862,000 (classification of constructions No. 2151 and 2152)
Upgrading, reconstruction and completion of public ports in Bratislava, Komárno and Štúrovo	Planned TEN-T core network (Bratislava, Komárno)	Upgrading of infrastructure: mooring components, perpendicular edges, staircases, shore pavements, moorings for holding positions, warning markings, etc.
Upgrading of infrastructure: mooring components, perpendicular edges, staircases and warning markings		

SPRDI SR 2020 and SRVOND SR 2020 are multilevel strategic documents and the methodology of assessment has been adapted accordingly.

The assessment of ER shall be carried out on two levels:

- 1<sup>st</sup> level: Assessment of visions, priorities and objectives defined within SPRDI SR 2020 and SRVOND SR 2020;
- 2<sup>nd</sup> level is concerning the assessment at the level of SEA process aimed at the measures for the development of the railway, road, inland waterway, air and intermodal infrastructures proposed within SPRDI SR 2020 as well as assessment of measures of the public passenger and non-motorised transport within the SRVOND SR 2020.

All measures of SD refer to particular strategic objectives to fulfilment thereof they directly contribute. Their contents, character and expressive value in relation to the assessment of impacts on environment are different. Measures of general nature having an indirect but evident impact, without possibility to specify the measure localisation, will be addressed in ER at so called the 1st level of the assessment of visions, objectives and priorities. Measures having a direct impact on environment, with

a known infrastructure localisation, will be addressed in ER at so called the 2<sup>nd</sup> level corresponding to the process of SEA. SD contain also the list of TI and VOND projects, the implementation of which shall be presented as the way of the fulfilment of declared measures compiled according to mentioned urgency criterion. The level of particular projects corresponds to the contents of assessment of impacts on the environment on the EIA level.

To ensure the objectives the implementation of measures has been proposed within the SPRDI SR 2020; these measures shall be taken in the road, railway, intermodal, air and inland waterway transport infrastructures. The most of the transport infrastructure projects referred to in the text and the Annex of SPRDI SR 2020 have been subjected to the assessment at the level of EIA process finished with the final opinion having a recommendation character and the adoption of the decision relating to the positioning of construction. Knowledge of EIA is transferred in the ER and then it is evaluated as supporting database for the assessment on the 2<sup>nd</sup> level of SEA or on the 1st level. However the SEA task does not include re-filling the database within the EIA knowledge. Measures of local nature, where the strategic dimension of the replacement of considered measure localisation in other territory corridor or the substitution by other transport mode absents, are marked as the 3<sup>rd</sup> level of assessment corresponding to the EIA process.

The assessment of individual projects is non-standard in terms of strategic environmental assessment whereas these do not constitute the policy, plan, strategy or programme but particular projects with a defined localisation in the territory and therefore they are subject to the assessment within the meaning of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) – so called the EIA Directive, which has been transposed into the Act No. 24/2006 Coll. According to the analysis of projects, most of them have already been subject to the EIA process.

**In any case the SEA shall not substitute the EIA process** and this is an imperative principle which has to be applied in assessing. In particular the deepness of individual projects assessment has subjected to such principle while within the meaning of SEA philosophy the particular areas have been assessed on the basis of specified environmental objectives. The sense of an assessment consists in particular in the attention to **possible non-compliance of the project with environmental objectives determined by the strategies for individual areas.**

Tab. 30 SPRDI SR 2020 measures and method of their environmental assessment

Type of measure	Mode of transport /activity	Measures	Level of assessment
System measures	Pre-project and project preparation of transport infrastructure constructions	Process of preparation and implementation of development projects	1 <sup>st</sup> level
		Implementation of multimodal transport model of the Slovak Republic	1 <sup>st</sup> level
Organisational measures	Road transport	Road transport concept	1 <sup>st</sup> level
	Railway transport	Compliance of concepts related to the contracting of transport	1 <sup>st</sup> level
		Renewal of rolling stock	1 <sup>st</sup> level
	Intermodal transport	Establishment of organisation for operation intermodal terminals	1 <sup>st</sup> level
		Establishment of incentives for creation of logistic background	1 <sup>st</sup> level
		Legislation amendments	1 <sup>st</sup> level
		Programme for support of combined transport development	1 <sup>st</sup> level
	Air transport	Common operational - organisational measure	1 <sup>st</sup> level
	Inland waterway transport	Concept of waterways development	1 <sup>st</sup> level
		Development of public port services	1 <sup>st</sup> level
		Settlement of property rights in public ports	1 <sup>st</sup> level
Operational measures	Road transport	Efficient management and maintenance of road network	1 <sup>st</sup> level
		Development of IntDS	1 <sup>st</sup> level
		Upgrading of lay-bys	3 <sup>rd</sup> level
	Railway transport	Integrated short-cycle timetable	1 <sup>st</sup> level
		Removal of concurrences and continuity of bus transport	1 <sup>st</sup> level
		Changes in train traffic diagram in order to limit deficiencies in capacity	1 <sup>st</sup> level
		Ensuring the extent of transport according to demand	1 <sup>st</sup> level
		Reduction of costs of traffic management	1 <sup>st</sup> level
	Inland waterway transport	Management and maintenance of waterways and navigation objects at the level of year-around navigability	1 <sup>st</sup> level
Infrastructure measures	Road transport	1. Completion of D1 motorway	2 <sup>nd</sup> level
		2. North-south interconnection to Poland and Czech Republic	2 <sup>nd</sup> level
		3. North-south interconnection in Eastern Slovakia	2 <sup>nd</sup> level
		4. East - west communication axis in Central Slovakia	2 <sup>nd</sup> level
		5. North - south communication axis in Central Slovakia, route R3 and route R3-R1-R3	2 <sup>nd</sup> level
		6. Road network in Bratislava agglomeration	2 <sup>nd</sup> level
		7. Completion of priority axis west-east of Slovakia	2 <sup>nd</sup> level
		8. Development of the I. class road network and expressway network outside TEN-T	1 <sup>st</sup> and 3 <sup>rd</sup> level 2 <sup>nd</sup> level
	Railway transport	New railway connections	1 <sup>st</sup> level
		Terminals of integrated passenger transport	3 <sup>rd</sup> level
		Upgrading of TEN-T network	2 <sup>nd</sup> level
		Elimination of limiting points	1 <sup>st</sup> level
		Technological ensuring of interoperability	2 <sup>nd</sup> level
		Infrastructure measures for ITCP implementation	1 <sup>st</sup> level
		Electrification of major lines	2 <sup>nd</sup> level
		Ensuring of operability	1 <sup>st</sup> level
		Achievement of required standards on nationwide lines	1 <sup>st</sup> level
		Revitalisation of lines and stations (nodes)	1 <sup>st</sup> level
		Distance control of operation on railway infrastructure (rationalisation, dispatching system)	1 <sup>st</sup> level
	Intermodal transport	Intermodal Transport Terminals	2 <sup>nd</sup> level

Type of measure	Mode of transport /activity	Measures	Level of assessment
		Elimination of restraints (intermodal transport) on railway network	1 <sup>st</sup> level
	Air transport	Upgrading, construction and maintenance of airport infrastructure within the TEN-T	2 <sup>nd</sup> level
	Inland waterway transport	Technical measures to ensure required parameters of fairway of Danube waterway	2 <sup>nd</sup> level
		Renewal and upgrading of lock chambers on the waterworks Gabčíkovo	3 <sup>rd</sup> level
		Completion of monitored waterway Váh	1 <sup>st</sup> level
		Waterways and objects for sport and recreational navigation on Slovakia waterways	3 <sup>rd</sup> level
		Construction of waterways components	3 <sup>rd</sup> level
		Upgrading, renewal and completion of public ports in Bratislava, Komárno and Štúrovo	3 <sup>rd</sup> level
		Upgrading of infrastructure: mooring components, perpendicular edges, staircases and warning markings	3 <sup>rd</sup> level
		Revitalisation and completion of landing stages and hardened surfaces in public port Bratislava	3 <sup>rd</sup> level
		Construction of storage facilities for agricultural products	3 <sup>rd</sup> level
		Improvement of navigability of particular waterway sections within the public ports	3 <sup>rd</sup> level
		Construction of public ports for sport and recreational navigation	3 <sup>rd</sup> level
Measures relating to safety	Road transport	Prevention of generation of black spots and removal of black spots	1 <sup>st</sup> level
	Railway transport	Ensuring safety at level crossings	1 <sup>st</sup> level
		Ensuring safety in railway stations	1 <sup>st</sup> level
	Air transport	Creating conditions for safe air transport operation (Safety)	1 <sup>st</sup> level
	Inland waterway transport	Deployment of extended river information services	1 <sup>st</sup> level
Measures relating to impacts on environment and population	Road transport	Effective design and construction of bypasses of cities and municipalities	1 <sup>st</sup> level
	Railway transport	Environmental monitoring and noise related measures	1 <sup>st</sup> level
		Implementation of noise related measures	1 <sup>st</sup> level
		Electrification of major railway lines	1 <sup>st</sup> level
		Elimination of old ecological loads	1 <sup>st</sup> level
	Air transport	Application of instruments for effective elimination of risks associated with environment protection and reduction of negative impacts on population	1 <sup>st</sup> level
	Inland waterway transport	Investments in inland waterway transport to increase environmental tolerance of vessels	1 <sup>st</sup> level
		Increase in environmental tolerance of means of inland waterway transport through design adjustments	1 <sup>st</sup> level
		Building of LPG fuelling station in public ports in Slovakia	3 <sup>rd</sup> level
		Ensuring of collection and disposal of waste produced by vessel operation in public ports	3 <sup>rd</sup> level

Explanatory notes:

1<sup>st</sup> level – Assessment of visions, objectives and priorities

2<sup>nd</sup> level – Assessment of measures with localisation parameter at the level of SEA process

3<sup>rd</sup> level – Assessment of measures at the level of EIA process

From the abovementioned table it results that on the strategic level the assessment of such measures shall be possible that may be planned in the territory and concurrently, they generate the new integrated transport system or in a dominant rate they upgrade the existing integrated transport system with the variant options of the organisation. This relates to infrastructure measures for which the supporting documents have been elaborated at least at the level of relevant technical study with the situation in building of the transport infrastructure.



The measure "Development of the I. class road network and expressway network outside TEN-T" includes the list of projects with supporting documents the purpose of which is to ensure the appropriate building and technical parameters of existing road network. These projects of road renewal may be assessed at the strategic level of the variant approach to forming the transport system, whereas they are not of such nature. Projects for the road construction and renewal have been assessed at the 1<sup>st</sup> level within the visions, objectives and priorities.

Measures of SRVOND SR 2020 shall mean activities contributing to the fulfilment of specific objectives. They are the basis for defining the projects through implementation of which the objectives will be met. The single measure may be implemented through more projects. The task of the measure is to specify the actions which have to be implemented at the competent level of the state, regional and local administration. Each measure may also be perceived as the programme containing the interrelated projects.

Based on 56 defined priorities, the implementation of 177 projects is proposed in the project pipeline of SRVOND SR 2020; these are divided according to regions and priorities into the "green-green" projects (necessary and prepared), "green" projects (necessary and feasible), "yellow" projects (necessary and non-prepared), the projects the necessity of which will have to be proved in the transport general plan and the "red" projects (non-prepared and/or non-feasible and/or of less importance). With regard to the number of 179 projects the following table defining the implementation variant of SRVOND SR 2020 includes only necessary, prepared and feasible projects.

Tab. 31 Expected status after completion of transport infrastructure under SRVOND SR 2020 implementation variant, the method for environmental assessment of measures

Type of measure	Priorities –assessment level 1	Implementation variant: Measures – assessment level 2	Implementation variant: Green projects – assessment level 3
Organisational measures	Priority 1, SD1.1: Achievement of the preferred status of public passenger and non-motorised transport compared to individual transport	-	-
	Priority 2, SD 1.2: Provision of sufficient financial resources for sustainable and systematic operation, maintenance and renewal of vehicles and infrastructure of public passenger and non-motorised transport	-	-
	Priority 3, SD 1.3: Creating conditions for establishment of the primary role of railway in regional transport systems in areas with potential	-	-
	Priority 4, SD 1.4: Integrated planning and contracting of public passenger transport performances OP 13 Establishment of integrated transport systems, integration of public passenger transport in Western functional region (BSK, TTSK Bratislava and Trnava), in Eastern functional region (KSK, PSK, Košice and Prešov, Poprad and Vysoké Tatry), Central-South functional region (BBSK Banská Bystrica and Zvolen) and Central-North functional region (ŽSK, TSK, Žilina, Trenčín, Martin)	OP 17 Establishment of integrated transport systems, integration of public passenger transport in Western functional region in Bratislava and Trnava, in Eastern functional region in Košice, Prešov, Poprad and Vysoké Tatry and in Central-South functional region in Banská Bystrica and Zvolen and Central-North functional region Žilina, Trenčín, Martin	Update of the Plan of transport services in Košice self-governing region
	Priority 5, SD 1.5.: Contracting of transport service defined according to the needs of passengers and quality standards, and with the aim to ensure its competitiveness compared to the individual transport	-	-
			-
Operational measures	Priority 6, SD 2.1: Defining standards for public transport service and for the quality of transport services	-	-
	Priority 7, SD 2.2: Improving quality of public passenger transport so as to be safe, environmentally friendly and competitive with the individual automobile transport	-	-
	Priority 8, SD 2.3: Operational coordination of individual modes of public passenger transport	-	-
	Priority 9, SD 2.4: Ensuring the availability of information on public transport operation for passengers	-	Upgrading of dispatching management, on-line position monitoring, information, Žilina Upgrading of vehicle information and communication system, Žilina
	Priority 10, SD 2.5: Provision of modern tariff, information and dispatching systems	-	Establishment of on-line ticketing - software, hardware, Žilina

Table continuation

Type of measure	Priorities –assessment level 1	Implementation variant: Measures – assessment level 2	Implementation variant: Green projects – assessment level 3
Infrastructure measures	Priority 11, SD 3.1: Ensuring of low-floor or low-entry vehicle fleet with adequate quality, with high comfort for passengers and high energy efficiency	-	Renewal of tram fleet in Bratislava
			Renewal of trolleybus fleet in Bratislava
			Low-floor and energy-efficient trolleybuses and trolleybuses with auxiliary propulsion for Žilina
			Low-floor, environmentally friendly (hybrid) buses – procurement, Žilina
			Installation of gas propulsion in buses of public transport, DPMP Prešov
			Purchase of duobuses for Prešov
			Renewal of tram fleet in Košice
			Project of the purchase of electric units within the integrated transport system, ZSSK
			Project of the purchase of diesel units within the integrated transport system, ZSSK
	Priority 12, SD 3.2: Achievement of high quality of terminals, transfer nodes and stops with minimisation of barriers and maximisation of compactness and efficiency	-	ŽSR, Terminals of integrated passenger transport (TIOP) in Bratislava, section Bratislava hlavná stanica - Podunajské Biskupice (implementation)
			ŽSR, Terminals of integrated passenger transport (TIOP) v Bratislava, section Bratislava hlavná stanica - Devínska Nová Ves (implementation)
			ŽSR, Terminals of integrated passenger transport (TIOP) in Košice self-governing region 1st stage (PD + implementation)
	Priority 13, SD 3.3: Ensuring of preferred status of public passenger transport in urban areas	-	Upgrading of traffic dispatching in Bratislava
			Establishment of dynamic preference of mass urban transport at by lights controlled junctions, Žilina
			Revitalisation of street areas of urban district in Banská Bystrica with connection to city centre to prioritise the public passenger and non-motorised transport
	Priority 14, SD 3.4: Operation on a modern railway infrastructure with short travelling times and adequate density of barrier-free and well equipped railway stops and transfer terminals	-	Project concerning the building of units for technical and sanitary maintenance, ZSSK (Bratislava, Košice, Humenné, Zvolen, Žilina, Nové Zámky)

Table continuation

Type of measure	Priorities –assessment level 1	Implementation variant: Measures – assessment level 2	Implementation variant: Green projects – assessment level 3
Infrastructure measures	Priority 15, SD 3.5: Ensuring the quality and required extent of urban rail transport infrastructure	-	Upgrading of maintenance basis in Bratislava
			NS MHD (core mass urban transport system) stage I Hlavná stanica - Janíkov dvor, operational section Bosákova ulica - Janíkov dvor, 2 <sup>nd</sup> part Bosákova - Janíkov dvor
			Upgrading of tramways lines - Karloveská, Vajnorská and Račianska radial connection
			NS MHD stage I Hlavná stanica - Janíkov dvor, operational section Hlavná stanica - Šafárikovo námestie
			Upgrading of traction sub-stations in Žilina (technology + capacitors)
			Upgrading of trolleybus infrastructure in Žilina
			Construction of trolleybus lines and turning circles in Žilina
			Upgrading of maintenance basis in Košice
			Upgrading of tramway lines in Košice - stage II
			Cycling route Eurovelo 13, Devínska cesta (Karlova Ves – Devín)
Infrastructure measures	Priority 16, SD 3.6: Allowing the use of cycling for the purpose of transport in cities and villages with an emphasis on the connection to terminals and stops of public passenger transport as well as to the transportation between villages	-	Cycling route H2 (Solinky - centrum), Žilina
			Cycling route V6 (Veľký Diel - Vlčince, trolleybus terminus), Žilina
			Cycling route V9 (Vlčince - Žilina waterworks), Žilina
			Cycling route V7 (Veľký Diel - Carrefour), Žilina
			Cycling route Podlavice-Hušták – Bus station and railway station and railway stop - mesto Banská Bystrica with overpass (flyover) over the road I/66 and supplementary cycling infrastructure
			Path for cycling and walking Banská Bystrica - Šalková
			Low-cost measures concerning cycling in urban areas of Prešov
			Building of traffic playgrounds in Banská Bystrica
Infrastructure measures	Priority 17, SD 3.7: Calming of traffic in suitable locations of urban areas, support of public awareness	-	

Explanatory notes:

Assessment level 1 – Assessment of visions, priorities and strategic objectives;

Assessment level 2 - Measures with localisation parameter at the level of SEA process;

Assessment level 3 - Green projects with localisation parameter at the level of EIA process;

From abovementioned table results, that at the strategic level an assessment may be performed only in case of two SRVOND SR 2020 measures (establishment and construction of ITS), that may be planned in the territory and along with it they generate the new integrated transport system or in a

dominant rate they upgrade the existing integrated transport system with the variant options of the organisation. The stated measures of SRVOND SR 2020 are specific through their program context associated with other infrastructure measures and projects that fulfil, with regard to implementation, the objectives for establishment of ITS in cities and their agglomerations at the design level. Projects included in the project pipeline are of a local extent and level and their environmental assessment corresponds to the EIA process.

## **4. ASSESSMENT OF VISIONS, OBJECTIVES A PRIORITIES OF ASSESSED STRATEGIC DOCUMENTS**

The description and evaluation of activities promoting individual visions, objectives and priorities is specified in full extent in Annexes 1.1 and 1.2. Conclusions of evaluation from annexes are stated in the following part.

### **4.1 Evaluation of compliance of visions, objectives a priorities of the stable and efficient transport sector development with environmental objectives of Environmental Report**

The process of investment planning follows European as well as national binding conventions, which include the most important investment activities. EC facilitates the support of important investments in the field of TEN-T network development also through the new financial instrument "Connecting Europe Facility" CEF). It includes the support of preparation of project documents as well as the implementation of investment actions.

Within the preparation process of individual project charters, it will be consistently required to fulfil the required steps in phases of pre-investment, investment/project preparation, as well as in the phase of construction.

Implementation of a multimodal transport model is the key prerequisite for setting up of effective transport planning processes and the development of transport infrastructure in the territory of the Slovak Republic. There are therefore significant system measures with immediate usage within so-called II. phase of preparation of the transport sector strategy relating directly to this document.

Consistent compliance with the phases within the preparation process and the implementation of development projects, based on outputs of the multimodal transport model, will result in improvement, particularly in the areas aimed at the provision of the transport service and its users – population of the Slovak Republic.

At the same time, the utilisation of multimodal transport model outputs comprises the possibility to influence proposals and decisions on the location of transport structures through the mitigation of negative effects of transport on the environment and landscape.

An important chapter of evaluation is the area of project preparation of the transport infrastructure (hereinafter referred to as the "TI"). An Annex to SPRDI SR 2020 includes project documents of the TI with recommended preparation. If the whole process of pre-project and project preparation will be executed in accordance with the strategic objective "Setting up pre-investment preparation processes leading to sustainable development of transport", then it is necessary to evaluate the proposal for processing of project documents as highly positive.

The evaluation shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 and SRVOND SR 2020 have the potential to promote environmental objectives set out in the ER:

- To improve the access to basic and transport services;
- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas
- To improve the safety of transport.

Objectives and activities proposed within the assessed visions do not constitute a potential conflict with the environmental objectives of ER.



## 4.2 Evaluation of compliance of visions, objectives and priorities of road transport with environmental objectives of Environmental Report

Transport infrastructure in Slovakia fulfils its function - transport service of the territory - at an inadequate quality level. It is not possible to assert that the territory of Slovakia in settlement areas is not accessible by the road infrastructure, but in areas with high concentration of population and its activities, there are clearly identified deficiencies in the performance of transport infrastructure and in its complex configuration. The I. class roads substitute the function of motorways and expressways on many road network sections in Slovakia, including components of the TEN-T network. In most cases, these roads are routed through the residential areas of cities and villages and they are the resources of negative environmental impacts.

Objectives defined in SPRDI SR 2020 have the ambition to improve the adverse condition of road infrastructure quality parameters with the highest importance. In addition to an important role in the national economy development, the implementation of objectives has a direct positive environmental impact, especially with regard to health. In densely populated urban agglomerations and in rural sections of I. class roads in corridors of future motorways and expressways, traffic accidents rate is expected to be improved through construction of motorway infrastructure. Positive changes can be expected also with regard to decreasing noise and emission burden of public for reasons of rerouting the transport from cities and villages residential areas to new motorway and expressway routes outside settlements and the implementation of noise related measures. Last but not least, significant improvement of transport accessibility of main agglomerations in Slovakia will be reflected in a higher quality of life.

An important chapter of the assessment is the area of upgrading and reconstruction of the road network. Activities planned in the area of upgrading and reconstruction of the road network reflect the unsatisfactory technical condition of some road network sections. There are 2.5% of roads in unsatisfactory condition in the network of motorways and expressways and other 0.6% of the total length of roads are in the state of disrepair. The network of I. class roads includes 47.6% of roads in an unsatisfactory condition and 6.2% from the total length of I. class roads are in a state of disrepair. Since 2000, the total share of I. class roads sections in an unsatisfactory condition or in a state of disrepair has raised two and a half fold.

Projects listed in the Annex to SPRDI SR 2020 - Indicative list of proposed projects and in the table situated at the end of Annex 1.1. to the ER constitute a part of visions, objectives and priorities evaluation. Projects of construction of I. class roads (bypasses and relocations of roads, sections with insufficient technical and capacitive parameters) relate to the priority SC1.2 "Improvement of accessibility of the network of motorways and expressways through the construction of new sections of I. class roads and the priority SC5.1 "Decrease in impacts on environment and population - effective construction of bypasses of cities and municipalities". The connection with the priority SC2.2 "Improvement of technical condition of I. class roads" and with the priority SC4.1 "Prevention of black spots" is present in the projects aimed at the upgrading and ensuring of road safety on motorways, expressways and I. class roads. The project "Measures to decrease the noise burden on the I. class roads" relates to the priority SC5.1 "Reduction of impacts on environment and population - implementation of noise related measures".

Projects for upgrading and reconstruction of the road network are mostly planned in the existing corridors of roads, having character of construction activities of local importance, where it is necessary to comply with the Act No. 24/2006 Coll. and decide on the assessment of environmental impacts at the EIA process level. More specified projects aimed at upgrading and reconstruction of the road network miss the project supporting documents processed at adequate level. Within the systemic assessment of visions, objectives a priorities, the technical supporting documents of different level for abovementioned projects provided by SSC and NDS Inc. have been used. With regard to the evaluation of compliance of visions, objectives a priorities, the affected objectives are assessed with expected positive impact on environment.

Introduction of transport telematics – IntDS (Intelligent Transport Systems) – into transport management will also be a significant contribution to the environment. Navigation systems and information services of operation management may increase the traffic flow fluency and thus decrease total consumption of fuel as well as pollutants, e.g. through the assistance to route planning.

Transport infrastructure development is connected with negative trend of energy consumption growth dominated by the liquid fuel consumption. From the global point of view, the development of road infrastructure contradicts the EU objectives concerning greenhouse gas reduction. The implementation of measures however, fulfils the objective of the community to support the single multimodal European transport area through investments into Trans-European transport network (TEN-T). In this context, it is necessary to agree on some trade-off to support the sustainable mobility and economic growth.

Naturally, the construction of new roads and expressways will not avoid the negative impacts on areas where they will be implemented. The construction will affect all core components of an environment - soil, water, air, and biota. Summary of potential impacts on individual components is listed in chapter IV.1.

The most significant conflict area related to the construction of a new infrastructure is the clash with nature protection interests, in which the conflict with areas included in Natura 2000 network prevails. Evaluation of conflicts of projects included in SPRDI SR 2020 is addressed in chapter IV.4. In this context, it is necessary to state that the initiative of MDVRR SR for the construction of ecoducts for the migration of animals has to be assessed as positive. Ecoducts will be located in areas where they are necessary based on cooperation with expert organisations.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- To improve the access to basic and transport services;
- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas
- To improve the safety of transport.

Objectives and activities proposed within assessed visions and objectives of SPRDI SR 2020 constitute potential conflict, particularly with the following environmental objectives of ER:

- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;
- To minimise agricultural and forest land take;
- To ensure the flood protection of the territory;
- To ensure the protection of valuable parts of nature and functionality of ecosystems;
- To ensure the integrity of Natura 2000 network;
- To maintain ecological stability of landscape;
- To preserve integrity of landscape and its scenery value;
- To protect the cultural heritage;
- To increase energy resources efficiency;
- To use the material resources reasonably, prevent waste production

#### **4.3 Evaluation of compliance of visions, objectives a priorities of the railway transport with environmental objectives of Environmental Report**

Strategic objectives of the railway transport in SPRDI SR 2020 are arranged according to a complex understanding of the problem: passenger transport and operation, freight transport and operation, railway infrastructure, project and pre-project preparation, economy.

Comprehensively defined and interconnected objectives create preconditions for more efficient use of railway infrastructure capacity, speeding up the carriage of passengers and goods, increase the safety and reliability. Improvement of the qualitative level of railway network has the potential to contribute to the reduction of adverse effects of transport on the environment.

A basic vision in the field of railway network operational use is the overall increase in volume of transport on railways, including the reverse shift of carriage operations from road transport. The railway network has to be generally prepared for this process, it must allow satisfying the increased demand for passenger as well as for the freight transport at a competitive level.

Lagging behind within the railway infrastructure development might present risks of decrease in national transport of passengers and freight, as well as the reduction of transit transport. It could result

in an increase in volume of road freight transport and individual car transport and related environmental problems.

The issue of new railway lines has been referred in the KURS 2001 in the context with a qualitative better connection of the city Nitra to the railway network TEN-T and the core area of Bratislava agglomeration. As a liable option, the KURS 2001 allows for a new railway line connected to existing line No. 130 Bratislava – Galanta - Štúrovo, incorporated into the new proposal for TEN-T comprehensive network; this line shall constitute the shortest radial connection between Bratislava and Nitra cities. A new line should be disconnected from the line NO. 130 in the site of Trnovec nad Váhom and along the municipality Cabaj – Čápor it would be connected in the city Nitra to the line No. 140 and it would continue in existing line No. 140 along the settlement of valley of Nitra river up to the Prievidza city.

A qualitatively better connection of the Nitra city with the north-south orientated main railway line TEN-T, line No. 120 Bratislava – Žilina, has been predicted through the upgrading of lines No. 141 and 140 in section Leopoldov – Zbehy – Lužianky – Nitra. SPRDI SR 2020 has also identified with this concept through the project preparation for upgrading of railway lines.

The ultimate investment priority is the upgrading of railway lines included in Trans-European corridors IV., V. a VI., which are part of Trans-European transport network TEN-T, to achieve parameters defined in AGC and AGTC agreements, increasing line speeds to 160 km/h in sections where it possible considering the geographic conditions and ensuring interoperability when upgrading and reconstructing the tracks in accordance with the EU legislation.

Measures of the railway transport contribute to the fulfilment of objectives focused on low-carbon management, environment and effective use of resources. From this global point of view, the ambition of railway transport to increase the volume of transport, including the shift of transport from the road transport, is of highest significance and it will represent a direct contribution to the objective concerning the reduction of greenhouse gas emissions.

In this context, the electrification of lines is also of extraordinary importance, as it results in decrease in the dependence of transport sector on oil products as well as in the reduction of emission production, including greenhouse gas emissions. In case of electrified lines, the environment is burdened by lower levels of noise and the electrification of lines results in significantly shorter travel time.

Another effect of the upgrading of lines is the decrease in safety risks, both internal (technical security of railway operation) and external in respect of passengers and other transport users. Extraordinary contribution in this area is the realisation of grade separated crossings of railways and road infrastructure.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the ER:

- To improve the access to transport services and support social inclusion;
- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas
- To improve the safety of transport;
- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;

No significant non-compliance with environmental objectives set in the ER was identified in any case, provided that the measures laid down in the environment legislation are implemented.

#### **4.4 Evaluation of compliance of visions, objectives a priorities of the intermodal transport with environmental objectives of Environmental Report**

In Slovak intermodal transport conditions, the weight of co-modality is on railway and road transport systems. The inland waterway transport incorporated into the intermodal transport system under AGN and AGTC agreements finds its application on the Danube waterway. Intermodal transport is planned

on the Váh waterway as well. However, the fundamental premise is the canalisation of the Váh waterway in adequate parameters.

Visions and objectives of the intermodal transport in Slovakia establish a presumption of system functionality through the construction of new core public terminals in Bratislava, Žilina, Košice, Leopoldov and Budča. The location of terminals is based on exactly identified data on sources, destinations and routing of existing and potential transport flows. Localisation of terminals is quite accurately corresponding with the allocation of transport-gravity (catchment) regions in Slovakia.

Designed public terminals create non-discriminatory conditions for equal access to the intermodal transport facilities. There is a real presumption that the operation of new intermodal transport terminals will result in an increase of share of environmentally and energy efficient transport in the overall volume of freight transport in Slovakia. In this context, it is expected that there will be a shift of a certain volume of the international long-distance road freight transport towards international intermodal transport systems.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the ER:

- To improve the access to transport services;
- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas
- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;
- To improve the safety of transport.

No significant non-compliance with environmental objectives set in the ER was identified in any case, provided that the measures laid down in the environment legislation are implemented.

#### **4.5 Evaluation of compliance of visions, objectives a priorities of the air transport with environmental objectives of Environmental Report**

With regard to the size of the country, Slovakia has relatively dense network of airports of different character and classification. In 2013, an initiative of MDVRR SR has been underway to achieve an optimised situation in respect of the number of airports operated by airport companies, taking into account the territorial, economic and transport relations and needs of the state and regions.

Within the EU civil aviation system, in Guidelines of the Community - which is concerning the financing of airports and state aid the for start-up of airlines departing from regional airports - the European Commission defines three categories of international public airports. From the mentioned criteria it results that Slovakia has one airport of EU importance - the M. R. Štefánik airport in Bratislava and one airport of regional importance and with accessibility relevance - airport Košice.

Currently, there are significant financial and operational problems mainly on the side of airport companies operating airports Žilina, Sliač and Piešťany, primarily because of the absence of stable performance. These findings imply the necessity of a new organisational structure of airport companies in Slovakia with a tendency to optimise their number, scope and character of provided services. In accordance with the abovementioned information, a common operational-organisational measure is being prepared in a form of changes on the side of airport companies operating airports in Slovakia with a tendency to optimise their number, scope and character of offered services.

Measures in a form of upgrading, building and maintenance of the infrastructure of airports included in the TEN-T network (Bratislava, Košice, Poprad-Tatry) are based on the range of needs of airport companies concerning the operated infrastructure, whether it is issue of the complex upgrading of the airport infrastructure (RWY and adjacent areas), building of new infrastructure for the freight transport, or infrastructure-based measures in a form of maintenance works.

The support of proposed measures from public resources will be subject to the EC assessment in accordance with the proposal of the EC Guidelines on the state aid to airports and airlines as of 03 July 2013.

Development of the TEN-T air transport infrastructure is connected with expected increase in transport volume followed by the negative trend of energy consumption growth dominated by the liquid fuel consumption - and production of emissions. From the global point of view, the development of air infrastructure contradicts the EU objectives aimed at the greenhouse gas reduction.

Measures to be implemented on airports have to be evaluated as a contribution to the improvement of environment.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the ER:

- To reduce the noise pollution effect on population;
- To prevent deterioration of the ecological and chemical status of waters;
- To improve the safety of transport.

Objectives and activities proposed within assessed visions and objectives of SPRDI SR 2020 constitute potential conflict, especially with following environmental objectives of the ER:

- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;

#### **4.6 Evaluation of compliance of visions, objectives a priorities of the inland waterway transport with environmental objectives of Environmental Report**

interferences with infrastructure of the inland waterway transport are expected to improve conditions of navigability of Danube and Váh waterway, as well as existing services provided in ports, or to extend their offer.

Development and upgrading of waterways and public ports will contribute to development of economy and employment in the Slovak Republic. The infrastructure of inland waterway transport providing required parameters of the navigable waterway throughout the year is the guarantee of competitiveness of the inland waterway transport and its integration into transport chains. Modernised infrastructure of the inland waterway transport might have positive effects on adjacent regions along Danube and the lower Váh.

Inland waterway transport plays an important role, especially with regard to the carriage of goods, and as a part of intermodal transport networks, it contributes to the achievement the objectives of EU transport policy focused on the reduction of environmental burden caused by ever growing transport demands.

The inland waterway transport impairs water ecosystems and the regime of watercourses. The precondition for its functionality is constructionally and technically challenging infrastructure. Operation of the inland waterway transport vessels is connected with the water pollution. Currently, there is no infrastructure for the supply of alternative fuels.

Strategic objective aimed at the reduction of negative impacts of the inland waterway transport on the environment and population proclaims activities in the area of the remotorisation of ships, in the field of alternative fuels, within waste management and in the monitoring of environmental impacts. Their contribution may have a positive effect on the environmental balance of the inland waterway transport.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the ER:

- To improve the access to transport services;
- To prevent deterioration of the ecological and chemical status of waters;
- To reduce the noise pollution effect on population;
- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To prevent waste production;
- To increase energy resources efficiency;
- To improve the safety of transport.

No significant non-compliance with environmental objectives set in the ER was identified in any case, provided that the measures laid down in the environment legislation are implemented.



#### **4.7 Evaluation of compliance of visions, objectives and priorities of the non-motorised transport with environmental objectives of Environmental Report**

In context with still growing transport demands of population the growth of individual automobile transport it is necessary to take the radical system measures to support development environmental-friendly transport modes. The main vision of SRVOND SR 2020 is to reverse unfavourable development in modal split and thus create conditions for sustainable regional and urban mobility.

The current trend in modal split within the passenger transport in Slovakia evolves considerable in favour of individual automobile transport. The individual car transport reached up to 77% of the total performance of the passenger transport during 2011 in whole SR. Slovakia has an objective to reduce this trend of modal split with negative environmental impacts, and to stimulate by investments shift from individual automobile transport to environmentally acceptable modes of public passenger transport. Such turnover of the negative trend in the transport services could bring a synergic effect in the reduction of emissions from transport, creation of congestions in the residential agglomerations. Negative environmental transport impacts are primarily associated with the energy consumption resulting in CO<sub>2</sub> emissions, air pollution and noise. In the Slovak Republic, the transport generates up to 20% of the total production of CO<sub>2</sub> and 34% of NO<sub>x</sub>.

One of the most significant contributions of activities supporting development of VOND is compliance with objectives of Europe 2020 strategy. One of the priorities of the strategy is sustainable growth and promotion of greener and more competitive and resources efficient economy. According to this initiative Europe should modernise the whole sector of transport, it should use resources efficiently thus promoting separation of economy growth from sources, transfer to low-carbon economy, increase renewable source energy and promote energetic efficiency.

Specific objectives are aimed at the organisational, infrastructure and operation aspects lying in increase in green aspects, energetic efficiency and accessibility of vehicles of public passenger transport, as well as in quality infrastructure of public passenger transport, accessible and quality infrastructure of non-motorised transport.

Making the public passenger and non-motorised transport more attractive creates the potential for taking over of the part of individual passenger transport with direct impact on decrease in fuel consumption, decrease in emission production, including greenhouse gas emissions. The reduction of individual automobile transport volume has a positive impact on all other environmental and health aspects related to transport – decrease in emission and noise burden, safety, endangerment of cultural monument etc.

Upgrading and deployment of new energy efficient vehicles for railway passenger transport and urban mass transport will not only increase operation safety, comfort of carriage and time saving of travellers but also reduction of traction electric energy consumption and with it associated costs. Compared to old fashioned vehicles, new energy efficient vehicles can save a significant part of traction energy thanks to an advanced traction equipment and propulsion.

Investments in the public passenger transport should result in the integrated transport infrastructure, optimised for the individual urban agglomerations and also its appropriate organisation and operating by new upgraded means of transport. Means of transport themselves form one of the core stones of the transport system, and they predetermine its qualitative and quantitative parameters. In addition, they mean the first contact of the passengers with the public passenger transport and therefore they can influence significantly their decision-making process in selection of the transport mode.

The promotion of potential projects will be preconditioned by the existence of complex strategic development plan for public passenger transport in the individual cities, with the aim to monitor the worthiness of the transport solution, its economic justification and the sustainability of the individual projects, as well as the urban mass transport as a whole.

From the abovementioned it results that the promotion of public passenger and non-motorised transport will fulfil the following environmental objectives:

- To improve the access to transport services and support social inclusion;
- To improve the safety of transport;

- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas;
- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;
- To improve the safety of transport.
- To protect the cultural heritage;

No significant non-compliance with environmental objectives was identified in any case, provided that the measures laid down in the environment legislation are implemented.

## 5. EVALUATION OF IMPACTS OF STRATEGIC DOCUMENTS

A strategic level of the SEA assessment requires addressing the complex spatial relationships of the network of this transport system. Within the 1<sup>st</sup> phase of preparing the SPRDI SR 2020 the comprehensive list of potential projects has been compiled; these have been further analysed with regard to their necessity, preparedness and feasibility.

The necessity was directly linked to the overall prioritisation of the infrastructure measures that have been analysed in the framework of the evaluation of SPRDI SR 2020 proposal. Preparedness expresses the degree of the pre-project preparation structured into elaboration of the feasibility study, environmental impact assessment (EIA), issue of the territorial decision, status of law property settlement and issue of the construction permit. Feasibility expresses the economical effectiveness of the proposed solution that has been assessed on the basis of cost-benefit analysis (CBA).

Set-up simplified methodical procedure has been aimed at the identification of projects which may be considered, based on the wider professional consensus, as relevant and justified. An important parameter enabling the classification of the project in this category (so called green projects) has been the degree of preparedness allowing the implementation of particular project within the period of 2014-2020 (2023). The methodology has been set-up towards the identification of apparent, indisputable projects implementable during this period. Other projects have to be further processed in detail so as their relevance in the context with their possible implementation may be demonstrated.

Within the SPRDI SR 2020 the projects are divided as follows:

- project plan for the programming period 2014 - 2020 (or 2023) includes green projects of SPRDI SR 2020 (projects that may be implemented within this period without limitations);
- project pipeline for the programming period 2014 - 2020 (or 2023) includes all projects – green, yellow, red – that are part of SPRDI SR 2020.

Projects classified in categories green, yellow and red are the part of defined measures of SPRDI SR 2020 and they are subject to the strategic environmental assessment. For this reason the strategic environmental assessment could not be aimed only at the green projects (indisputable projects) included into the project plan of SPRDI SR 2020. All projects included in the project pipeline are subject to the ER.

Defined measures of the road, railway, intermodal, air and inland waterway transport are spatially covering networks and facilities of highest importance in Slovakia. The process of strategic assessment of TI environmental impacts distinguishes between linear and area elements. Motorways, expressways, roads, railway lines, inland waterways are assessed as linear elements. Railway nodes, ports, intermodal transport terminals and airports are considered as area elements. The assessed entity is represented by the territorial sector, a bounding space with the expected impact on the environment.

Linear elements of transport infrastructure represent - with regard to their coherent and continuous character - a significant aspect of the impact on the territory and landscape. The character of constructions of railway linear elements - electrification and upgrading of lines in the existing route corridor - quite clearly defines intended territorial sectors. Concerning the construction of motorways and expressways, it is necessary to consider the changes in traffic volume caused by the construction, which will occur on roads, the function of which will be taken over by the new infrastructure. So the linear element itself is defined by the route of the new motorway/expressway and by the route of the parallel (original) road. The mentioned double line of transport infrastructure - many times with quite

different routing - creates a territorial sector through a surface projection of the assessed impacts related to the new and original communication. The width of the territorial sector is given by the variable nature of values of the assessed criteria and that even depending on the possibility to consider both direct and indirect, cumulative and synergistic effects on the environment. Linear territorial sectors are therefore clearly definable through their fixed end points, interchanges of motorways and expressways. Following the request of MDVRR SR, section of road transport and infrastructure, the name of territorial sectors in road transport is derived from the name of projects of motorways and expressways, excluding names of interchanges.

The territorial sector of area elements of transport infrastructure is determined by the actual surface area of the future of transport area and adjacent territory of different size - depending on the evaluation criteria - in which, the direct and indirect, cumulative and synergistic effects are potentially identified. Names of territorial sectors of area elements are based on the location of element (e.g. Intermodal Transport Terminal Bratislava, construction in the Bratislava railway node, Bratislava Port are located in the territorial sector "Bratislava", which allows to evaluate the primary impacts of area elements of transport infrastructure as well as the cumulative and synergistic nature of their interaction as an inter-connected transport complex).

The road and railway transport networks have been divided into territorial sectors depending on the node points of systems (interchanges of motorways and expressways, railway nodes).

The assessment has been carried out according to the territorial sectors in which at the same time the design sections of the road and railway transport constructions have been identified. From individual territorial sectors the particular measure of SPRDI SR 2020, listed in the table of measures, concerning the road and railway transport may be compiled and assessed. The procedure for the assessment of localisation of intermodal transport terminals and airports within the basic zoning of Slovakia was selected in case of intermodal and air transport.

Lists of territorial sectors along with the classification of individual projects of SPRDI SR 2020, detailed and comprehensive evaluation of the compliance of particular measures with ER environmental objectives – by territorial sectors – are processed in Annexes 2.1 and 2.2. Score assessments have been carried out through the structure of strategic aspects, criteria and indicators derived from ER environmental objectives.

An evaluation of compliance of SD measures with ER environmental objectives has been carried out through the following scales of impact evaluation:

#### **The scope of impact evaluation (excl. Natura 2000)**

- 2 significant negative impact
- 1 slightly negative impact, mitigable by measures
- 0 zero or negligible impact
- +1 slightly positive impact
- +2 significant positive impact
- ? not enough information for evaluation
- X no relevant section

#### **The scope of Natura 2000 impact evaluation**

- 2 significant negative impact (very significant impact)
- 1 slightly negative impact (less significant impact)
- 0 zero impact (non-significant impact)
- 1? Probably less significant impact, it is necessary to confirm it or to exclude the significant negative impact through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)
- 2? Probably less significant impact, it is necessary to confirm it or to exclude the significant negative impact through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)

-2+ Significant negative impact, after determining the significant negative impact, technical measures have been suggested and repeatedly assessed by an appropriate assessment and within the additional assessment the significance score was reduced to -1

Following tables present final assessment of compliance of SPRDI SR 2020 measures with ER environmental objectives. Verbal description of the compliance evaluation is stated in chapter IV.6 Summary evaluation.

Tab. 32 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: Completion of motorway D1

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
1	Bratislava Peča – Trnava	6.00	1.00	0.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	1.00
2	Hričovské Podhradie – Martin	8.00	2.00	1.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	5.00
3	Martin – Hubová	5.00	1.00	1.00	-1.00	-2.00	-1.00	0.00	-1.00	-2.00	-2.00	-2.00
4	Hubová – Ivachnová	5.00	1.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	1.00
5	Ivachnová – Prešov západ	5.00	2.00	0.00	-1.00	-1.00	0.00	-1.00	0.00	0.00	0.00	4.00
6	Prešov západ – Bidovce	7.00	2.00	1.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-1.00	5.00
7	Bidovce – Vyšné Nemecké – state border SR/Ukraine	2.00	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
Measure (sectors total)		38.00	9.00	6.00	-7.00	-8.00	-7.00	-1.00	-3.00	-7.00	-7.00	13.00

Tab. 33 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: North-south interconnection to Poland and Czech Republic

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
8	Hričovské Podhradie – Svrčinovec	7.00	2.00	0.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	5.00
9	Svrčinovec - Skalité - state border SR/Poland	2.00	0.00	2.00	-1.00	-2.00	-1.00	0.00	0.00	0.00	-1.00	-1.00
21	Svrčinovec - state border SR/Czech Republic	3.00	1.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	2.00
Measure (sectors total)		12.00	3.00	4.00	-3.00	-4.00	-3.00	0.00	0.00	0.00	-3.00	6.00

Tab. 34 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: North-south interconnection in Eastern Slovakia, more reliable results of the assessment provides the measure without concurrency of the expressway R4 with motorway D1

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
20	Prešov západ – Svidník – state border SR/Poland	0.25	2.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-2.75
Measure (sectors total)		0.25	2.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-2.75

Tab. 35 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: East - west communication axis in Central Slovakia

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
13	Chocholná – Pravotice	2.00	1.00	0.00	-1.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-2.00
14	Pravotice – Žiar nad Hronom juh	0.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-4.00
15	Sliač – Lučenec – Ožďany	2.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.00	-1.00	-2.00
16	Ožďany – Košické Olšany	0.00	2.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-5.00
Measure (sectors total)		4.00	5.00	2.00	-4.00	-4.00	-4.00	-4.00	-2.00	-2.00	-4.00	-13.00

Tab. 36 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: North - south communication axis in Central Slovakia, R3 route

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
17	Hubová – Trstená	1.50	1.00	2.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.50
18	Martin – Šášovské Podhradie	0.00	1.00	1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-4.00
19	Budča - Šahy - state border SR/Hungary	1.50	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.50
Measure (sectors total)		3.00	3.00	4.00	-3.00	-2.00	-3.00	-2.00	-3.00	-3.00	-3.00	-9.00

Tab. 37 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: North - south communication axis in Central Slovakia, R3-R1-R3 route

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
17	Hubová – Trstená	1.50	1.00	2.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.50
12	Sliac – Banská Bystrica – Likavka	-2.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-2.00	-2.00	-1.00	-11.00
19	Budča - Šahy - state border SR/Hungary	1.50	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.50
Measure (sectors total)		1.00	2.00	3.00	-3.00	-3.00	-3.00	-2.00	-4.00	-4.00	-3.00	-16.00

Tab. 38 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: Road network in Bratislava agglomeration

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Localisation											
10	Bratislava Jarovce - Stupava juh - state border SR/Austria	2.50	0.00	1.00	-1.00	-1.00	-2.00	0.00	-2.00	-2.00	-1.00	-6.00
11	Most pri Bratislave – Sereď	4.00	1.00	1.00	-1.00	0.00	-1.00	0.00	0.00	-2.00	-1.00	1.00
23	Bratislava Prievoz – Dunajská Streda (Kútniky)	2.00	2.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.00
Measure (sectors total)		8.50	3.00	3.00	-3.00	-2.00	-4.00	-1.00	-3.00	-5.00	-3.00	5.00

Tab. 39 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: Completion of priority axis west - east of Slovakia

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected	Natura 2000	TSES	Total
Number	Localisation											
22	Beluša – Lysá pod Makytou – state border SR/Czech Republic	-0.50	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-2.50
Measure (sectors total)		-0.50	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-2.50

Tab. 40 Evaluation of compliance of road transport infrastructure measures with ER environmental objectives, measure: Development of the I. class road network and expressway network outside TEN-T (expressways)

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected	Natura 2000	TSES	Total
Number	Localisation											
24	Dunajská Streda (Kútniky) – Lučenec	-2.00	2.00	1.00	-1.00	0.00	-1.00	-1.00	0.00	-1.00	-1.00	-4.00
25	Nitra západ – Brezolupy	-2.00	1.00	2.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-1.00	-3.00
Measure (sectors total)		-4.00	3.00	3.00	-2.00	-1.00	-1.00	-1.00	0.00	-2.00	-2.00	-7.00



Tab. 41 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Upgrading of TEN-T network lines (TEN-T core network)

Territorial sector No.	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
1	Bratislava, Devínska Nová Ves – state border SR/Austria	3.50	2.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-0.5
3	Púchov - Žilina	2.00	1.00	0.00	-1.00	-2.00	-1.00	0.00	0.00	-1.00	-2.00
5	Žilina - Košice	2.00	1.00	-1.00	-1.00	-2.00	0.00	-1.00	-1.00	-1.00	-4.00
11	Žilina – Čadca – state border SR/Czech Republic	3.50	1.00	-1.00	-1.00	0.00	0.00	0.00	0.00	-1.00	1.50
Measure (sectors total)		11.00	5.00	-3.00	-4.00	-5.00	-1.00	-2.00	-2.00	-4.00	-5.00

Tab. 42 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Upgrading of TEN-T network lines, (TEN-T comprehensive network)

Territorial sector No.	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
9	Zvolen - Košice	2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00
Measure (sectors total)		2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00

Tab. 43 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Upgrading of lines outside TEN-T network (railway nodes)

Territorial sector		Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	3.50	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	0.00	2.50
4	Žilina	2.00	0.00	0.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
7	Košice – Michalany – state border SR/Ukraine (Čierna nad Tisou)	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		7.50	2.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	3.50

Tab. 44 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Upgrading of TEN-T network (overall)

Measure	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Core TEN-T network	11.00	5.00	-3.00	-4.00	-5.00	-1.00	-2.00	-2.00	-4.00	-5.00
Comprehensive TEN-T network	2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00
Railway nodes	7.50	2.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	3.50
Measure in total	20.50	9.00	-5.00	-6.00	-8.00	-2.00	-3.00	-4.00	-6.00	-4.50

Tab. 45 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Electrification of major lines

Territorial sector No.	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected Areas	Natura 2000	TSES	Total
13	Bratislava Nové Mesto - Dunajská Streda - Komárno	1.00	2.00	-1.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
10	Michalany – Humenné - Medzilaborce	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
14	Leopoldov - Nitra - Šurany	1.00	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		2.00	6.00	-2.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	3.00

Tab. 46 Evaluation of compliance of railway transport infrastructure measures with ER environmental objectives, measure: Technological ensuring of interoperability

Territorial sector No.	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected Areas	Natura 2000	TSES	Total
2	Bratislava – Kúty – state border SR/Czech Republic	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
8	Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	1.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Measure (sectors total)		3.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00

Tab. 47 Evaluation of compliance of intermodal transport infrastructure measures with ER environmental objectives, measure: Intermodal transport terminals

Territorial sector		Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
6	Košice	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
12	Leopoldov	1.50	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
1	Bratislava	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
4	Žilina	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		9.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00

Tab. 48 Evaluation of compliance of air transport infrastructure measures with ER environmental objectives, measure: Upgrading, construction and maintenance of airport infrastructure within the TEN-T network

Territorial sector		Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	3.50	-1.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
21	Poprad-Vysoké Tatry	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
6	Košice	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Measure (sectors total)		7.50	-3.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

Tab. 49 Evaluation of compliance of waterway transport infrastructure measures with ER environmental objectives, measure: Technical measures to ensure required parameters of the fairway of the Danube waterway

Territorial sector		Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava – state border SR/Austria, (Danube, r. km 1880,260 - 1862,000)	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
Measure (sectors totally)		3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

The evaluation confirms the favourable impact of the most projects of transport infrastructure development on an improvement of the transport services, safety, decrease in noise and emission burden of settlement units, by diverting traffic from currently burdened roads.

Negative impacts of construction relate to claims on the territory (agricultural and forest land take and creating paved surface) and interference to territory linked in particular with destroying of habitats, felling of trees, endangering of water sources and area stability.

After completion, the constructions will have a negative impact with regard to noise, emissions, light, diversion of polluted waters, killing of animals, fragmentation of habitats and migration limiting.

A special impact constitutes an interference of some projects with Natura 2000 network sites, which is addressed in detail in chapter IV.5.

From the abovementioned it results that the transport infrastructure development requires solutions adequate to the importance and function of particular transport infrastructure in the context of Natura 2000, thereby the compliance with principles of sustainable development shall be necessary. Measures to mitigate negative impacts shall be implemented at the level of particular projects based on results of EIA process and following process of building permissions in accordance with the Building Act (zoning and planning decision, building permit).

Different options of applying the strategic environmental assessment concerning the measures of the public passenger and non-motorised transport are defined by the transport mode character, the statement and structure of measures. Within the SRVOND SR 2020 the measures are represented by programmes implying the interconnected projects. From the strategic environmental assessment point of view, there are concrete measures for establishment and building of integrated transport systems in cities and regions whereby such measures have an organisational character. However as a programme that has to be implemented, those measures include many partial projects referred to in as the part of other measures. Partial projects are evaluable at the EIA assessment level but their integration into territorially localised IDS system predetermines them as a subject assessable at the SEA strategic assessment.

Projects within the SRVOND SR 2020 have been pre-assessed from the priority importance point of view. This assessment does not include an assessment of local plan documents supporting the project and a preparedness of the project for implementation but it indicates only project conformity with strategic plan of the public transport and priorities of particular participants in the field of VOND. Within the final assessment, an implementation of 179 projects is proposed through the 56 defined priorities; these projects are divided by the regions and priorities into the "green-green" projects (necessary and prepared), "green" projects (necessary and feasible), "yellow" projects (necessary and non-prepared and projects the necessity of which will have to be proved in the transport general plan) and the "red" projects (non-prepared and/or non-feasible or of less importance).

Lists of territorial sectors with classification of individual SRVOND SR 2020 projects, detailed and comprehensive evaluation of compliance of particular measures with ER environmental objectives – divided into territorial sectors – are processed in Annex 2.2. Score assessments have been carried out through the structure of strategic aspects, criteria and indicators derived from ER environmental objectives.

Following tables present final assessment of compliance of SRVOND SR 2020 measures with ER environmental objectives. Verbal description of the compliance evaluation is stated in chapter IV.6 Summary evaluation.

Tab. 50 Evaluation of compliance of public passenger transport infrastructure measures with ER environmental objectives, measure: Establishment of integrated transport systems, integration of public passenger transport in West, East, Central-South and Central-North functional regions

Territorial sector		Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
15	Trnava	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
6	Košice	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
16	Prešov	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
21	Poprad-Vysoké Tatry	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
17	Banská Bystrica	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
18	Zvolen	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
4	Žilina	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
19	Trenčín	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
20	Martin	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
Measure (sectors total)		19.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.00

The evaluation confirms the favourable impact of all measures and projects of the public passenger transport aimed at improvement of transport services and through the decrease in noise and emission burden on the health of population.

Negative effects of the construction of infrastructure for public passenger and non-motorised transport have not been detected. The most of measures and projects will be implemented in urbanised surrounding of cities, where the risk of the agricultural and forest land take, destroying of habitats, cutting of trees, endangering of water sources and area stability deterioration does not exist.

A development of the public passenger and non-motorised transport shall contribute to compliance with principles of sustainable development and mobility.

Within the SEA assessment and at the level of actual knowledge of defined projects of public passenger and non-motorised transport the interference with Natura 2000 network areas does not expect. In the framework of EIA process and a following process of building permissions in accordance with the Building Act it is possible to apply appropriate corrections and measures to mitigate negative impacts identifiable at the local level.

## 6. CUMULATIVE AND SYNERGISTIC IMPACTS

Implementation of transport infrastructure measures may result in cumulative impacts on the individual components of environment and health through the common action of more constructions included in SPRDI SR 2020, the common action of effects of SPRDI SR 2020 measures and existing sources in the territory or future planned constructions.

The assessment of cumulative impact we have aimed at territories in which the measures and projects included in SD (SPRDI SR 2020, SRVOND SR 2020) shall be implemented whereby from the project localisation point of view and within the meaning of binding part of KURS 2011, we have divided the Slovakia territory into 5 regions of basic zoning of the Slovak Republic. Names of regional structures referred to in SRVOND 2020 differ from abovementioned Regulation of the Slovak Republic Government by which the binding part of KURS 2001 and 2011<sup>34</sup> has been approved. Territorial division and positioning of regions borders stated in SRVOND 2020 are fundamentally (KURS 2011 does define the borders of regions on the basis of borders of territorial units NUTS III) in conformity with division referred to in Government Regulation. However the KURS separately detaches the Bratislava region as the region with significant specific function (Capital of the Slovak Republic, high attractiveness degree of Bratislava territory, characteristic transport functions in densely settled

<sup>34</sup> Regulation of the Government of the Slovak Republic No. 461 of 16 November 2011, declaring the amendments of binding part of the Concept of territory development of Slovakia 2001, 2011

urbanised city surroundings). Regions for assessment of cumulative and synergic impacts are as follows:

- according to KURS, the Bratislava region - in the ER: a territory of Bratislava self-governing region (in SRVOND SR 2020 as the part of „Western functional region“);
- according to KURS, the region of South-Western Slovakia - in the ER: a territory of Trnava and Nitra self-governing regions (in SRVOND SR 2020 as the part of „Western functional region“);
- according to KURS, the region of North-Western Slovakia - in the ER: a territory of Trenčín and Žilina self-governing regions (in SRVOND SR 2020 as the part of „Central-North functional region“);
- according to KURS, the region of Central Slovakia - in the ER: a territory of Banská Bystrica self-governing region (in SRVOND SR 2020 as the part of „Central-South functional region“);
- according to KURS, the region of Eastern Slovakia - in the ER: a territory of Prešov and Košice self-governing regions (in SRVOND SR 2020 as the part of „Eastern functional region“).

The SPRDI SR 2020 measures, existing transport infrastructure with a possible cumulative effect, planned activities included in strategy of transport infrastructure development and other planned constructions in the territory have been included in the evaluation. Urban plans of SGR of competent self-governing regions as well as known concepts of particular sector development have been used. Project such as Váh Waterway, navigational connection of Váh - Odra through Kysuce, high-speed line, wide-gauge lines, etc., which are in phase of a vision without a concrete localisation in the area and without the parameters and time schedule of implementation, have not been included in evaluation.

A potential cumulative action on particular components of environment and health is elaborated in the Annex 4. In evaluating the following scale has been used:

- 2 significant negative impact;
- 1 slightly negative impact, mitigable by measures;
- 0 zero or negligible impact;
- +1 slightly positive impact;
- +2 significant positive impact.

Cumulative and synergistic impacts have been assessed according to abovementioned regions and described in Annex 3 "Assessment of cumulative impacts of SPRDI SR 2020 and SRVOND SR 2020 measures". A summary cumulative evaluation is presented in Chapter IV.9.

## **7. NATURA 2000 - STATE OF PROJECT ASSESSMENT PURSUANT TO ARTICLES 6(3) AND 6(4) OF THE HABITATS DIRECTIVE**

The core of biodiversity protection on EU level is European network of protected NATURA 2000 sites. Legal basis for NATURA 2000 network establishment consists of the following legal acts:

- Council Directive 79/409/EEC on the conservation of wild birds replaced by the Directive 2009/147/EC of the European Parliament and of the Council (Birds Directive); and
- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora as amended (Habitats Directive).

For implementation of transport infrastructure projects with a possible impact on NATURA 2000 network sites, the following articles 6(3) and 6(4) of Habitats Directive governing the obligation and approach of appropriate assessments of plans and projects are of crucial importance:

Article 6(3) of Habitat Directive:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's



conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4) of Habitat Directive:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

From the abovementioned it follows that the objective of preserving and restoring the favourable status of selected species and habitats of Community importance does not exclude activities in the areas of NATURA 2000, unless these disrupt the favourable state.

Before implementation of any plan or project not directly connected with certain site of Natura 2000 or not necessary for it in respect of management but it will likely have a significant effect thereon, either individually or in combination with other plans or projects, there is a need to:

- carry out appropriate assessment of the plan or project, including cumulative influence of other plans or project concerning the Natura 2000 sites from perspective of objectives of protection of these sites;
- carry out appropriate assessment regardless of the fact whether the plan or project is planned directly within this site or outside of it (which means assessment of larger territory);
- propose and in the same way verify equivalent alternative solutions of the plan or project.

If the appropriate assessment shows that any plan or project is of a significant adverse impact on integrity of particular NATURA 2000 site, or if after the appropriate assessment there are still doubts as to the significance of impacts, the project may be approved only in accordance with the procedure defined in article 6(4) of the Habitats Directive, i.e. if it is in the public interest. In such cases it is always necessary to propose so called compensatory measure, which will replace accordingly the losses of habitats or species of European importance as well as the change of functions and tasks of a NATURA 2000 site. Among compensatory measures belong the following measures such as: habitats restorations, creation of alternate sites or designation of new comparable NATURA 2000 network site.

When interfering with species and habitats that are subject of special interest - so called priority species or priority habitats of Community importance - it is possible to approve a plan or a project with significant negative impact on NATURA 2000 only for following reasons:

- preservation of public health,
- safety of inhabitants,
- improvement of environment or
- for other urgent purpose of higher public interest specified by EC.

The European Commission has to be informed about proposed compensatory measures of any plan or project approved in higher public interest by the Member States. EC established a format for submission of the information according to article 6 (4) of Habitats Directive containing description of a plan or a project, description of the NATURA 2000 site, results of the appropriate assessment (assessment of alternatives, reasons of higher public interest, reasoning of approved alternative, mitigating measures, compensatory measures and other data). EC will take cognizance of the information and in case the priority species or habitats are involved, it will issue an opinion.

In the national legislation, the requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into the Article 28 of the Act No. 543/2002 Coll. on land and landscape protection, as amended by later regulations.

For the purpose of the assessment of plans and projects impacts on Natura 2000 sites under the provisions of Article 6 of the Habitats Directive, the European Commission issued "Methodological Guidance on the Provisions of Articles 6(3) and 6(4) of the "Habitats" Directive 92/43/EEC on the

conservation of natural habitats and of wild fauna and flora". The assessment of plans and projects impacts on Natura 2000 network sites is based on the abovementioned guidance and shall be performed in four stages:

Stage 1: Screening - the process which identifies the likely impacts of a project or plan on a Natura 2000 site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

Stage 2: Appropriate assessment - it is undertaken where screening has found that the project implementation may have significant impact on the protection of subject matter of the Natura 2000 site(s). This stage shall include the assessment of a plan or project impact on the integrity of Natura 2000 network site in respect of the site structure and function and the subject of its protection. Where adverse impacts have been detected, this stage includes an assessment of the potential mitigation of those impacts.

Stage 3: Assessment of alternative solutions - it is undertaken where appropriate assessment has proven that a plan or project may have an impact on the integrity of Natura 2000 network site and it is necessary to examine whether other project alternative exists, the impacts thereof would be less important and would not endanger the integrity of the given site.

Stage 4: Assessment in case where adverse impacts remain - an assessment of compensatory measures where, in the light of an assessment of imperative reasons of public interest, it is deemed that the project or plan should proceed.

Process of assessment (so-called "Appropriate Assessment") is time intensive; it requires collection and detailed analysis of existing data and, in many cases, carrying out the field survey in order to identify the occurrence and status of the species and habitats that are subjects of protection.

In the Slovak Republic the situation is more complicated because of lack of any detailed national assessment methodology adequate to our ecologic and legislative conditions. Therefore, elaborators of assessments frequently use the Czech methodology 'Metodika hodnocení významnosti vlivů při posuzování podle § 45i zákona č. 114/1992 Sb. o ochraně přírody a krajiny' from 2007.

From abovementioned assessment requirements under Articles 6(3) and 6(4) of the Habitats Directive it results that for the assessment of transport infrastructure constructions it is necessary to know the concrete technical solution of the project and/or its alternatives, with precisely defined localisation, technical parameters, capacities and other characteristics such as land takes, natural resource requirements, noise and pollutant emissions, construction period, etc.

Appropriate assessment is currently being carried out in the phase of project or more precisely within the meaning of Slovak terminology in the phase of assessment of proposed activity under the Act No. 24/2006 Coll., i.e. within the EIA process.

Assessment at the SEA level cannot fully satisfy the requirements defined in the Methodological Guidance of European Commission. They may be applied when transport routes corridors that collide with the Natura 2000 network areas are being decided and there is a possibility to choose corridor with smaller or no impact. In the Slovak Republic the transport routes corridors are established under the strategic decisions based on Concept of territorial development of Slovakia (KURS 2001), which defines the cooperation links between polycentric networks of settlements and core settlement areas. These corridors were established in accordance with international conventions. In addition, most of the projects within motorway and expressways network are already limited by beginnings and/or terminations of existing sections or sections in construction. Assessing the alternatives of lesser interference with Natura 2000 network areas is possible only in case of particular projects, i.e. on the EIA level.

The most of projects have undergone the EIA assessment, with regard to various processing periods however, the level of Natura 2000 assessment of the projects is different. In 2013, MDVRR SR ensured the elaboration of a "Study of Natura 2000 network impacts on transport infrastructure" (Dopravoprojekt, 2013), with an objective to identify and evaluate the conflict of planned transport infrastructure with Natura 2000 network.

Within the strategic assessment of SPRDI SR 2020, the analysis of their collisions with Natura 2000 sites was carried out, including potential impacts on Natura 2000 sites defined by approximately 1 000 m wide corridor. The review of these conflicts is provided in the following table

Tab. 51 Review of conflicts of road infrastructure measures with Natura 2000 sites (by territorial sectors)

Measure No.	Territorial sector	Special Protection Area – Direct contact	Special Protection Area in a corridor of approx. 1 000 m	Special Area of Conservation – Direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
1	Territorial sector No.1: Bratislava Pečňa – Trnava	SKCHVU023 Úľanská mokraď	0	0	SKUEV0089 Martinský les
1	Territorial sector No.2: Hričovské Podhradie – Martin	SKCHVU013 Malá Fatra	0	0	SKUEV0667 Slnčné skaly
1	Territorial sector No.3: Martin - Hubová	SKCHVU013 Malá Fatra	0	SKUEV0238 Veľká Fatra SKUEV0252 Malá Fatra SKUEV0253 Váh	SKUEV0254 Močiar SKUEV0243 Orava SKUEV0663 Šíp
1	Territorial sector No.4: Hubová – Ivachnová	0	SKCHVU050 Chočské vrchy SKCHVU033 Veľká Fatra	SKUEV0253 Váh	SKUEV0305 Choč SKUEV0238 Veľká Fatra
1	Territorial sector No.5: Ivachnová – Prešov západ	0	0	0	SKUEV0109 Rajtopíky
1	Territorial sector No.6: Prešov západ – Bidovce	SKCHVU009 Košická kotlina	SKCHVU025 Slanské vrchy	0	0
1	Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine	SKCHVU025 Slanské vrchy SKCHVU037 Ondavská rovina.	0	0	0
2	Territorial sector No.8: Hričovské Podhradie – Svrčinovec	0	0	0	0
2	Territorial sector No.9: Svrčinovec - Skalité - state border SR/Poland	0	0	0	0
6	Territorial sector No.10: Bratislava Jarovce - Stupava juh - state border SR/Austria	SKCHVU014 Malé Karpaty SKCHVU007 Dunajské luhy SKCHVU016 Záhorské Pomoravie	SKCHVU029 Sysľovské polia	SKUEV0295 Biskupické luhy SKUEV0312 Devínske alúvium Moravy SKUEV0314 Morava	SKUEV0104 Homofské Karpaty SKUEV0279 Šúr SKUEV0388 Vydrica SKUEV0089 Martinský les SKUEV0269 Ostrovné lúčky
6	Territorial sector No.11: Most pri Bratislave – Sereď	SKCHVU023 Úľanská mokraď	0	0	0
5	Territorial sector No.12: Sliač – Banská Bystrica – Likavka	SKCHVU018 Nízke Tatry SKCHVU033 Veľká Fatra	0	SKUEV1303 Alúvium Hrona SKUEV0302 Ďumbierske Nízke Tatry SKUEV0198 Zvolen SKUEV0197 Salatín SKUEV0253 Rieka Váh SKUEV0164 Revúca	SKUEV0062 Priboj
4	Territorial sector No.13: Chocholná – Pravotice	0	0	0	0
4	Territorial sector No.14: Pravotice – Žiar nad Hronom juh	0	0	0	SKUEV 0128 Rokoš
4	Territorial sector No.15: Sliač – Lučenec – Ožďany	0	SKCHVU022 Poľana	0	SKUEV0247 Rohy
4	Territorial sector No.16: Ožďany – Košické Oľšany	SKCHVU003 Cerová vrchovina – Porimavie SKCHVU027	0	SKUEV0398 Slaná SKUEV0352 Hrušovská lesostep SKUEV0343 Plešivské	SKUEV0363 Ťahan SKUEV0346 Pod Strážnym hrebeňom SKUEV0350 Brzotínske

Measure No.	Territorial sector	Special Protection Area – Direct contact	Special Protection Area in a corridor of approx. 1 000 m	Special Area of Conservation – Direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
		Slovenský kras SKCHVU009 Košická kotlina.		stráne	skaly SKUEV0353 Plešivská planina SKUEV0356 Horný vrch SKUEV0737 Palanta
5	Territorial sector No.17: Hubová – Trstená	SKCHVU050 Chočské vrchy	0	SKUEV0243 Orava SKUEV 0253Váh	0
-	Territorial sector No.18: Martin – Šášovské Podhradie	0	0	SKUEV0382 Turiec and Blatnický potok, SKUEV0147 Žarnovica	0
5	Territorial sector No.19: Budča – Šahy – state border SR/Hungary	0	SKCHVU021 Poiplie	SKUEV0266 Skalka SKUEV0260 Mäsiarsky bok	SKUEV0257 Alúvium Ipľa
3	Territorial sector No.20: Prešov západ – Svidník – state border SR/Poland	SKCHVU011 Laborecká vrchovina	SKCHVU025 Slanské vrchy	SKUEV0048 Dukla	0
2	Territorial sector No.21: Svrčinovec – state border SR/Czech Republic	0	0	0	0
7	Territorial sector No.22: Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	0	0	0	0
6	Territorial sector No.23: Bratislava Prievoz – Dunajská Streda (Kútniky)	SKCHVU007 Dunajské luhy SKCHVU005 Dolné Považie	0	SKUEV0295 Biskupické luhy	0
8	Territorial sector No.24: Dunajská Streda (Kútniky) – Lučenec	SKCHVU005Dolné Považie SKCHVU021 Poiplie	0	SKUEV0257 Alúvium Ipľa SKUEV0365 Dálovský močiar	SKUEV0084 Zátoň SKUEV0261 Dedinská hora SKUEV0086 Krivé Hrabiny SKUEV0054 Cudenínsky močiar SKUEV0055 Ipeľské hony
8	Territorial sector No.25: Nitra západ – Brezolupy	SKCHVU031 Tribeč	0	0	SKUEV0589 Chynoriansky luh

Tab. 52 Review of conflicts of railway infrastructure measures with Natura 2000 sites (by territorial sectors)

Territorial sector	Special Protection Area – Direct contact	Special protection area in approx. 1 000 m wide corridor	Special Area of Conservation – Direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
Territorial sector No.1: Bratislava	SKCHVU016 Záhorské Pomoravie	SKCHVU007 Dunajské luhy	SKUEV0314 Morava SKUEV0312 Devínske alúvium Moravy.	SKUEV1064 Bratislavské luhy
Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic	SKCHVU016 Záhorské Pomoravie		SKUEV0312 Devínske alúvium Moravy, SKUEV3013 Devínske jazero SKUEV0217 Ondriašov potok, SKUEV0218 Močiarka, SKUEV0117 Abrod,	SKUEV0121 Marhecké rybníky, SKUEV0167 Bezodné, SKUEV0502 Štokeravská vápenka, SKUEV0388 Vydrica
Territorial sector No.3: Púchov - Žilina	0	0	0	0
Territorial sector No.4: Žilina	0	SKCHVU013 Malá Fatra	SKUEV0221 Varínka	SKUEV0665 Strečnianske meandre Váhu
Territorial sector No.5: Žilina – Košice	SKCHVU053 Slovenský raj		SKUEV0309 Poprad	SKUEV0139 Gánovské slanská, SKUEV0708 Primovské skaly,

Territorial sector	Special Protection Area – Direct contact	Special protection area in approx. 1 000 m wide corridor	Special Area of Conservation – Direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
	SKCHVU036 Volovské vrchy			SKUEV0782 Vydrenická slatina, SKUEV0784 Mašianske sysľovisko SKUEV0328 Stredné Pohornádíe
Territorial sector No. 6: Košice	0	0	0	0
Territorial sector No.7: Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine	0	0	0	0
Territorial sector No.8: Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	SKCHVU005 Dolné Považie SKCHVU020 Parížske močiare	SKCHVU023 Úľanská mokrad'		SKUEV0097 Palárikovské lúky, SKUEV0095 Panské lúky, SKUEV 0184 Burdov, SKUEV0393 Dunaj,
Territorial sector No.9: Zvolen - Košice	SKCHVU021 Poiplie, SKCHVU003 Cerová vrchovina- Porimavie, SKCHVU027 Slovenský kras, SKCHVU 009 Košická kotlina	SKCHVU022 Poľana	SKUEV 0398 Slaná,	SKUEV0343 Plešivské stráne, SKUEV0346 Pod Strážnym hrebeňom, SKUEV0350 Brzotínske skaly, SKUEV0353 Plešivská planina, SKUEV0352 Hrušovská lesostep, SKUEV0356 Horný vrch, SKUEV0737 Palanta
Territorial sector No.10: Michalany – Bánovce n/O – Humenné - Medzilaborce	0	SKCHVU035 Vihorlatské vrchy	0	SKUEV0250 Krivoštianka, SKUEV0231 Brekovský Hradný vrch
Territorial sector No.11: Žilina – Čadca – state border SR/Czech Republic	0	0	0	0
Territorial sector No. 12: Leopoldov	0	0	0	0
Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno	0	SKCHVU012 Lehnice		SKUEV0017 Pri Orechovom rade, SKUEV0010 Komárňanské slanisko, SKUEV0099 Pavelské slanisko

With regard to non-addressed localisation parameter of railway transport measures, the table contains the conflicts described in relation to the territorial sectors in which particular projects are situated. The assignment of the railway transport projects to territorial sectors is the part of tabular assessments in Annex No. 2.2.

Within the consecutive assessment, the SEA elaborators focused on the description of collision character, possibility of alternative solutions, description of cumulative impacts, assessment status under Articles 6(3) and 6(4) of the Habitats Directive as well as recommendation for further procedure in the meaning of the methodology to provisions of Articles 6(3) and 6(4). Assessment sheets of the projects are included in the Annex 4. Assessment results formulated into a recommendation for further procedure are summarised in the following table.

Tab. 53 Recommendations for further assessment procedure of impacts on NATURA 2000 sites - road transport

Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
1	Territorial sector No.1: Bratislava Pečňa – Trnava	In the section of Motorway D1 Senec - Trnava, extension to 6 lanes have been elaborated Assessment of impact of the motorway D1 extension to 6 lanes and of collectors in section Senec – Trnava on the special protection area Uľanská mokrad' (2009) In other sections, the appropriate assessment is not required.	No significant impact on the subject of protection has been identified, it is necessary to consistently implement all measures arising from the its conclusions. No further assessment is required.
1	Territorial sector	According to the information from NDS, an	To proceed according to the results of currently



Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
	No.2: Hričovské Podhradie – Martin	appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive is in progress and preliminary results are not indicating significant impacts as well.	ongoing assessment.
1	Territorial sector No.3: Martin - Hubová	<p>The planning permission for the so-called valley variant of the motorway came into force in March 2008, the building permit in May 2009. Non-governmental organisations have questioned the correctness of the assessment of the construction impact on Natura 2000 sites.</p> <p>In 2011, the Ministry, through NDS has provided an additional assessment (expert assessment) of the issue in fact of the project under construction and of the impact of future complete project on subjects of the protection of Natura 2000 sites. This assessment was conducted by Dr. Petr Roth in July 2012.</p> <p>On the basis of mentioned facts, some of the proposed measures have been redesigned and other measures for the mitigation of impacts have been proposed.</p> <p>Consequently, an assessment of the effects of mitigation measures on significantly affected sites has been performed (P. Roth et al.: Assessment of additional technical measures on the mitigation of impact of D1 motorway on the Natura 2000 sites, 10/2012).</p> <p>The evaluation concluded that in terms of connection of Malá Fatra, Veľká Fatra and Šíp, objects 216-01, 216-02, 216-04, and 216-05 are of key importance. These ecoducts provide a connection of important areas with occurrence of large predators and at the same time they solve the passability of the existing road I/18.</p> <p>Based on the assessment it was concluded that after the inclusion of all mitigating measures, the project will not adversely affect the integrity of the SAC Veľká Fatra (SKUEV0238), SAC Malá Fatra (SKUEV0252), SAC Váh (SKUEV0253) or SAC Šíp (SKUEV0663).</p>	<p>Due to the demonstration that the project after the implementation of mitigation measures will not have a significant impact on the Natura 2000 sites, further steps according to the Methodology are not necessary.</p> <p>In the next phases of the project preparation it will be necessary to further elaborate all of the proposed mitigating measures in cooperation with experts for the specific field.</p>
1	Territorial sector No.4: Hubová – Ivachnová	Within the appropriate assessment carried out in 2013, it was stated that the project will not have a significant impact on Natura 2000 sites.	Based on the fact, that no significant impacts have been found, the assessment may be considered as completed.
1	Territorial sector No.5: Ivachnová – Prešov západ	Proposed activity impact on Natura 2000 sites has been processed in separate study being a part of EIA documentation. Based on this study, it can be concluded that for the assessed project charter of the "D1 motorway Behárovce - Branisko", no significant negative impact on the integrity and subjects of the protection within the SAC has been identified.	In terms of assessment of the impact on the Natura 2000 sites it is possible to state that there will be no new impacts identified in relation to the planned activity and further assessment is not necessary.
1	Territorial sector No.6: Prešov západ – Bidovce	According to the information from NDS, the appropriate assessment under Art. 6(3) and 6(4) of the Habitats Directive is currently in progress.	To proceed according to the results of currently ongoing assessment.
1	Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine	The final EIA report from 1998 was issued before the Natura 2000 implementation. Besides the identification of locations within the EIA process, the impacts on Natura 2000 sites have not been considered in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been carried out. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently	<p>To proceed according to the results of currently ongoing assessment.</p> <p>It is necessary to carry out appropriate assessment of impacts on NATURA 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive.</p>

Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
		being prepared.	
2	Territorial sector No.8: Hričovské Podhradie – Svrčinovec	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
2	Territorial sector No.9: Svrčinovec - Skalité - state border SR/Poland	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
6	Territorial sector No.10: Bratislava Jarovce - Stupava juh - state border SR/Austria	<p>To the Technical Study for the section of motorway D4 Bratislava Jarovce – Ivanka pri Dunaji sever the Study on assessment of impacts has been elaborated; within it also the „Study on assessment of motorway impacts on protected areas“ 04/2010 and its amendment from z 04/2011 have been conducted.</p> <p>A section of route „Motorway D4, Ivanka sever – Záhorská Bystrica“ has been evaluated in 2010 pursuant to requirements of provisions of Articles 6(3) and 6(4) of the Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (appropriate assessment). The report has identified no actual significant negative impact of the assessed project on the integrity and subjects of protection of any Special Area of Conservation or Special Protected Areas. However, the precondition for decisive and unambiguous exclusion of a significant negative impact, is the implementation of a comprehensive monitoring. For the section Ivanka sever – Rača interchange, the variant solution 7b in semi-embedded version has been recommended. In the section Rača interchange – Záhorská Bystrica it has been recommended not to continue in the implementation of planned activity for the reason of complexity and seriousness of the tunnel passage through the Malé Karpaty massif, apparent uncertainty resulting from the knowledge of the affected territory at a level of the technical study and in particular, a disagreement of citizens and non-governmental organisations with regard to the motorway routing. It has been proposed to carry out a detailed technical study and in a new assessment process to assess the environmental impacts in the section Rača interchange – Záhorská Bystrica within the broader corridor of variant 7.</p> <p>So far in section Devínska Nová Ves –SR/AT border an appropriate assessment of impacts is not elaborated although in Assessment Report the negative impacts on NATURA 2000 are indicated. All variants of the route alignment involve necessary partial take of Natura 2000 sites and assume the impacts on species being the subject of protection as well.</p>	<p>In section where an appropriate assessment of impacts on NATURA 2000 sites, with regard to objectives of these sites protection according to Articles 6(3) and 6(4) of Habitats Directive not yet been elaborated, such assessment has to be conducted.</p> <p>In the next investment preparation the results and measures resulting from appropriate assessment shall be accepted.</p>
6	Territorial sector No.11: Most pri Bratislave – Sered'	<p>In 2013 an appropriate assessment of impact of project charter „Expressway R1 Most pri Bratislave - Vlčkovce“ on NATURA sites according to Articles 6(3) and 6(4) has been elaborated.</p> <p>A significant negative impact (-2) on the protection subject and integrity of SPA Úľanská mokraď has been identified in the study for all assessed variants.</p>	<p>In the context of this assessment, it is not possible to eliminate the significant negative impact (-2) as such in compliance with the methodology by any suggested mitigation measures. A possible and viable solution of this situation is to adjust the technical design of expressway R1 (e.g. by the extension of noise barriers within the update of the Technical study that will be a basis for the Environmental Report) for the next EIA assessment level.</p>

Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
			For the Environmental Report EIA level we recommend the amend the technical designs of the variant, which will reduce these significant negative impacts to an acceptable level and within the Report to perform a new appropriate assessment of impacts on the Natura 2000 sites, which could result in slightly negative impact (-1).
5	Territorial sector No.12: Sliač – Banská Bystrica – Likavka	In the process of SEA documentation, the Appendix No. 3 of the New Project of motorways and expressways, which concerned this section, it was concluded that the proposed activity is in a conflict with interests of nature conservation in the context of interference with protected natural areas, the final opinion (2010), however, was complying with the condition that it is necessary to carry out a detailed assessment of the entire route by means of the EIA process. In the EIA process concerning the project charter of I/59 (R1) Banská Bystrica – region border – Ružomberok D1 (2010) the final opinion states that "Recommendation for the route of section 4. shall be considered as open for the reason of know-how high uncertainty ..." The appropriate assessment has not been conducted yet.	It is necessary to carry out the appropriate assessment of impacts on NATURA 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive.
4	Territorial sector No.13: Chocholná – Pravotice	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
4	Territorial sector No.14: Pravotice – Žiar nad Hronom juh	The appropriate assessment has not been conducted, the final EIA opinion was issued in 2005, zoning and planning decision was issued in 2013.	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.
4	Territorial sector No.15: Sliač – Lučenec – Ožďany	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
4	Territorial sector No.16: Ožďany – Košické Oľšany	According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.	To proceed according to the results of an assessment elaborated within the feasibility study.
5	Territorial sector No.17: Hubová – Trstená	Appropriate assessment has not been conducted yet. The final EIA opinion for the section Martin - Horná Štubňa recommends an alternative solution for the section of the route with affected Natura 2000 sites with priority habitats, so that they will be not destroyed. Because, if there are priority habitats or priority species in the relevant territory, the proposed activity in the Special Area of Conservation could be permitted only under the assumption that there is no available alternative solution in the territory. The non-existence of other solutions has not been proved within the EIA process. It results from assessment that in the territory exists an alternative routing of expressway, outside the particular protected area. The Technical study (2008) was considering the western bypass of Turčianske Teplice, which is running outside the Natura 2000 sites.	In the next procedure of investment preparation to assess, through the separate EIA process, an alternative in the section Martin – Horná Štubňa that runs outside the Natura 2000 network sites. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.
-	Territorial sector	The appropriate assessment has not been	In the next procedure of investment preparation

Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
	No.18: Martin – Šášovské Podhradie	conducted yet. The final EIA opinion for the section Martin - Horná Štubňa recommends an alternative solution for the section of the route with affected Natura 2000 sites with priority habitats, so that they will be not destroyed. Because, if there are priority habitats or priority species in the relevant territory, the proposed activity in the Special Area of Conservation could be permitted only under the assumption that there is no available alternative solution in the territory. The non-existence of other solutions has not been proved within the EIA process.	the alternative running outside the SAC, shall be assessed through the separate EIA process.
5	Territorial sector No.19: Budča – Šahy – state border SR/Hungary	Besides the identification of locations within the EIA process, the impacts on Natura 2000 sites have not been considered in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been conducted. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.
3	Territorial sector No.20: Prešov západ – Svidník – state border SR/Poland	The appropriate assessment has not been conducted yet. In the section state border Poland/SR - Hunkovce, there is the EIA process in progress (preliminary environmental study 2011), in the section Hunkovce - Ladomirová, the final opinion has been issued in a time when the Natura 2000 network (2002) has not been established.	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.
2	Territorial sector No.21: Svrčinovec – state border SR/Czech Republic	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
7	Territorial sector No.22: Beluša – Lysá pod Makytou – state border SR/Czech Republic	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
6	Territorial sector No.23: Bratislava Prievoz – Dunajská Streda (Kútniky)	In May 2013, an appropriate assessment has been elaborated; it relates to the impact of construction on NATURA 2000 sites for the section Ketelec – Prievoz; it states that proposed activity in Variant A will not have a substantial or significant impact on the protection subject and integrity of affected sites. Loss of habitat area, species population as well as in the biodiversity of the area in the SAC Biskupické luhy is not significant. Within the EIA process, studies have been elaborated (2008) for the section Bratislava – Dunajská Lužná; which partly meet the characteristics of an appropriate assessment - the impact of the activity on the Biskupické luhy area, impact on birds and impact on habitats. In section Holice – Dunajská Streda, an appropriate assessment has been elaborated in 2011; it concluded that the construction and operation of an R7 expressway in section Holice – Dunajská Streda in all variants will not have a negative impact on sites, habitats and species, which are	In appropriate assessment of particular sections the significant negative impacts on Natura 2000 sites have not been proved. It is necessary to complete the assessment of final section Dunajská Streda - Nové Zámky from the perspective of protection objectives of such Natura 2000 sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive.

Measure No.	Territorial sector	Status of the assessment pursuant to provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
		the subject-matter of protection in Natura 2000 sites.	
8	Territorial sector No.24: Dunajská Streda (Kútniky) – Lučenec	<p>An appropriate assessment has not been elaborated for the section Dunajská Streda – Nové Zámky; it is necessary to elaborate such assessment with regard to direct contact with the SPA Dolné Považie.</p> <p>In November 2011, the study on impacts of R7 Nové Zámky - Čaka on the SPA Dolné Považie has been elaborated. Concerning the results of the research on birds in the broader area as well as directly on the route of planned expressway and of the monitoring of selected bird species within SPA Dolné Považie, it is possible to state that the planned expressway will not have a negative impact on SPA Dolné Považie.</p> <p>In April 2011, an assessment of the project charter impact on Natura 2000 sites has been elaborated for the road section Veľký Krtíš – Lučenec. The evaluation objective was to assess whether the R7 expressway in section Veľký Krtíš – Lučenec will have a significant negative impact on the protection subject and integrity of Natura 2000 sites - SPA Poíplie, SAC Dálovský Močiar and SAC Dedinská hora.</p> <p>The assessment concludes that the construction and operation of R7 expressway in section Veľký Krtíš – Lučenec, in Variants B and B1 will have a significant impact and it will negatively affect the site and species that are subjects to the protection of the SAC Dálovský močiar and SPA Poíplie.</p> <p>According to the Article 6(4) of the Directive 92/43 EEC it has been stated that for the area there is another alternative solution; which is socially, economically and technically comparable and that within the area there is another possible routing as in Variants B and B1.</p>	<p>It is necessary to complete the assessment of impacts, according to Articles 6(3) and 6(4) of the Habitats Directive, on section Dunajská Streda - Nové Zámky from the perspective of protection objectives for Natura 2000 sites and in preparing the investments, the conclusions of assessment have to be followed. In other sections, it is necessary to proceed in accordance with appropriate assessment conclusions. In sections where a significant negative impact has been proved, the variants outside the Natura 2000 sites shall be preferred.</p>
8	Territorial sector No.25: Nitra západ – Brezolupy	<p>The assessment of impacts of the construction and operation of the expressway R8 on the SPA Trbeč has been elaborated in April 2010. Results show that the impact of construction and operation of R8 on selected species of birds in the SPA Trbeč is non-significant, or less significant.</p>	<p>No significant impact on the subject of protection has been identified, it is necessary to consistently implement all measures arising from the its conclusions. No further assessment is required.</p>

Tab. 54 Recommendations for consecutive assessment procedure of impacts on NATURA 2000 sites - railway, transport

Territorial sector	Status of the assessment according to the provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
Territorial sector No.1: Bratislava Project No. 2,16,17,18,19, 20, 21	There are no collisions with Natura 2000 sites in the territorial sector	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.
Territorial sector No.1: Bratislava Project No. 1 Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation	The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been conducted.	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.
Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic	The deployment of the ERTMS does not imply any territorial claims and interferences with the Natura 2000 sites, it has no impact on subjects of protection in affected territories. An appropriate assessment of impacts on protection subjects and	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.



Territorial sector	Status of the assessment according to the provisions of Article 6(3) and 6(4)	Recommendation for consecutive procedure according to Methodology to provisions of Articles 6(3) and 6(4)
	integrity of Natura 2000 sites has not been carried out.	
Territorial sector No.3: Púchov - Žilina	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
Territorial sector No.4: Žilina	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 sites has not been carried out. Within the EIA process it was concluded that due to the reconstruction of the bridge in its original location and extent of interference with the SAC the potential impacts on the conservation objectives are assessed as insignificant.	Due to the non-significant effects, further assessment under Art. 6(3) and (4) is not necessary.
Territorial sector No.5: Žilina – Košice	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 sites has not been carried out. In documentation of the EIA processes the impacts on protection subjects and integrity of Natura 2000 sites have not been solved in detail, except for the identification of Natura 2000 sites.	The degree of the interference shall be assessed in the next stage of the preparation of the construction by procedures according to Methodological guidance on the provisions of Art. 6(3) and 6(4) of the Habitats Directive.
Territorial sector No.7: Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
Territorial sector No.8: Bratislava – Nové Zámky – Štúrovo/Komárno – state border SR/Hungary	The deployment of the ERTMS does not imply any territorial claims and interferences with the Natura 2000 sites, it has no impact on subjects of protection in affected territories. An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 sites has not been carried out.	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.
Territorial sector No.9: Zvolen - Košice	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 sites has not been conducted.	Within the next stages of investment preparation, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, paragraph 3 and 4 of the Directive on habitats.
Territorial sector No.10: Michalany – Bánovce n/O – Humenné - Medzilaborce	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
Territorial sector No.11: Žilina – Čadca – state border SR/Czech Republic	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant
Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 sites has not been carried out.	Within the further investment preparation an appropriate assessment of impacts on NATURA 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.
Territorial sector No. 14 Leopoldov – Nitra - Šurany	There are no collisions with Natura 2000 sites in the territorial sector	Irrelevant

With regard to non-addressed localisation parameter of railway transport measures, the table contains the conflicts described in relation to the territorial sectors in which particular projects are situated. The assignment of the railway transport projects to territorial sectors is the part of tabular assessments in Annex No. 2.2.

Measures relating to the intermodal transport (Košice, Žilina, Leopoldov and Bratislava terminals) and air transport (Bratislava, Poprad-Tatry and Košice airports) are not in collision with Natura 2000 sites; the assessment is irrelevant.

In case of measures concerning the inland waterway transport (Implementation of Technical Measures to Remove Barriers and Resolving Navigability of the Danube River, km 1880.26 - 1862.00 (Classification of Constructions No. 2151 and 2152)) the concrete technical solutions enabling the assessment of interference with Natura 2000 sites are unknown.

Measures relating to the public passenger and non-motorised transport are not in collision with Natura 2000 sites; the assessment is irrelevant.

The assessment of measures related to the I. class roads is elaborated at the level of statement indicating which sections of the I. class roads may interfere with Natura 2000 sites. From the assessed projects the contact with Natura 2000 sites is determined in case of the projects of I. class roads:

- Project of the road „**I/72 Tisovec mesto - Tisovec, Čertova dolina, reconstruction**“, where a marginal contact is possible. Existing road I/72 constitutes the border of Natura 2000 sites – areas of European importance SKUEV0225 Muránska planina and special protection area SKCHVU017 Muránska planina and Stolické vrchy. Through directional routing in variant solutions concerning the reconstruction of I/72 road will occur interferences with legislatively protected sites.
- Project of the road „**I/66 Brezno – bypass, stage I.**“ - affected area is the SKUEV1303 Alúvium Hrona.

The extent of the interference and the impact assessment shall be part of the EIA process.

## 8. SUMMARY SEA EVALUATION

Evaluation of SD impacts on environment and health was carried out in detail, on the level adequate to the strategic document with cross-border and nationwide scope with the following objective: to identify potential problematic areas and significant negative impacts, which should be taken into account when establishing priorities of transport infrastructure development. With regard to the nationwide relevance, the SEA does not address local territorial context in detail as this is evaluated on the EIA level. Geographic scale has been set based on this context, showing the localisation of measures and projects included in SD with the aim to point out the general context and potential cumulating of impacts.

With regard to SD structure, the assessment has been carried out at two levels - assessment of visions, objectives and priorities of individual transport modes and assessment of impacts followed by an assessment of their cumulative impacts. In respect of Natura 2000 network areas, whose protection is of key importance from perspective of localisation of particular constructions, SDs have been assessed separately.

The objective of summary evaluation is to assess the adequacy of option and the localisation of measures, their mutual interaction with regard to sustainable mobility and the paradigm of SPRDI SR 2020 and SRVOND SR 2020.

With regard to the assessment of measures by transport modes, interventions have positive impacts on the development of railway transport based on upgrading and electrification of railway lines, construction of intermodal transport terminals, deployment of interoperability and increase in operational safety. An increase in qualitative level of railway network contributes to the reduction of adverse impacts of the transport on environment. The effort to develop the public passenger transport decreasing claims on individual automobile transport with highest negative impacts on environment and health in settlement agglomerations may also be evaluated favourably.

Common action of effects of railway transport development, including the intermodal transport, and VOND development mitigates to a certain extent the negative impacts of road transport development. Road transport infrastructure development means a certain disproportion in respect of environmental objectives seeking for to decrease emissions and especially greenhouse gas emissions. In this context it is necessary to realise the fact that Slovakia does not dispose of a completed core network of motorways and expressways resulting from international agreements. Without qualitative adequate and capacitive justified interconnection of the main economic centres with further links to other regions, it is impossible to ensure the sustainable growth of economy. Completion of motorway sections and development of expressways is the only solution of the adverse situation in road transport. Concurrently it is necessary to realise that in accordance with the Decision No 661/2010/EU of the European Parliament and of the Council the road network of TEN-T include not only the motorways but also the roads of high quality regardless of whether they exist or they are new or should be built.

The need to increase the capacity of road network and its upgrading is caused by the ever growing volumes of automobile transport reflecting in the growing traffic volumes on main road routes with

international transport. Similar but less massive trend has been identified also on the network of the II. and III. class roads; it is connected with ever ongoing growth of motorisation rate in the most Slovakia regions. Development of transport infrastructure efficiency and qualitative level represents in justified cases a significant potential with regard to decrease in interregional disparities as well as the option for employment growth.

The global objective of SPRDI SR 2020 is to support the sustainable mobility, economic growth, job creation and to improve the business climate through the transport infrastructure and public passenger and non-motorised transport development. Based on evaluation of particular measures it may be stated, that proposed objectives and activities support the sustainable mobility in the most cases. Activities set within individual transport modes establish favourable conditions for mutual positive action of transport system. With regard to analysis of current issues, trends of their development and increasingly deterioration of the transport situation in main settlement agglomerations we recommend to strengthen the development of public passenger transport as it plays an important role with regard to the sustainable mobility.

### *Formal evaluation of SD*

Several discrepancies - that are in conflict with legislatively established method of the designation of Slovakia settlement structures - are present in the text of SPRDI SR 2020 and SRVOND SR 2020.

Firstly, there are ambiguities in classification of particular projects listed in SD indicative lists to concrete measures. Some projects may be unambiguously assigned to measures; other projects may be assigned in more ways. The ER proposes that classification of projects in measures has been carried out within the incorporation of comments of SEA process.

A formal problem is the denomination of regions of Slovakia basis zoning; within the SRVOND SR 2020 are named as follows: Western functional region, Central-northern functional region, Central-southern functional region and Eastern functional region.

Within the meaning of KURS 2011 binding part declared by the Regulation of the Slovak Republic Government No 461 of 16 November 2011, declaring the amendments of binding part of the Concept of territory development of Slovakia 2001, the basic zoning of Slovakia (nodal - catchment regions) specified in the point 11.1. To stabilize the basic zoning of the Slovak Republic in areas Bratislava, south-west Slovakia and transport - gravitation centre Nitra/Trnava, north-west Slovakia and transport-gravitation centre Žilina/Martin, Central Slovakia and transport-gravitation centre Zvolen/Banská Bystrica and Eastern Slovakia and transport-gravitation centre Košice/Prešov. Regulation of the Slovak Republic Government No 461 of 16 November 2011 does not define the basic zoning through the borders of self-governing regions but through the catchment areas of core settlement areas more detailed processed in the document: "Polycentric concept of settlement as the instrument ensuring the functional complexity at regional and local level". A comparison of document results in statement, that borders of basic region zoning in KURS 2001, 2011 and borders of functional regions in SPRVOND SR 2020 define in a dominating extent identical regions (basic zoning - functional regions).

Based on abovementioned, the names of functional regions of SRVOND SR 2020 have to be adjusted to the legislatively established basic zoning of Slovakia according to KURS 2011, with assigning the self-governing regions pursuant to following table. With regard to very strong transport links and functional interconnections of Bratislava, Trnava and partly also Nitra self-governing regions, the union of regions south-western Slovakia and Bratislava in a single functional unit appears, within the document SRVOND SR 2020, as justified.

Tab. 55 Basic zoning of Slovakia according to KURS 2011 with proposal for amendments of names of functional regions

State in SRVOND SR/SPRDI SR 2020		KURS 2011			Proposal for amendments in SRVOND SR/SPRDI SR 2020
Name of region	NUTS III – self-governing region	Name of region	Core settlement area of NUTS III -self-governing region	Transport - gravitation centre	Name of region
Western functional region	Bratislavský	Bratislava	Bratislavský	Bratislava	Functional region Bratislava and the South-western Slovakia
	Trnavský	South-western Slovakia	Trnavský	Nitra/Trnava	
	Nitriansky		Nitriansky		
Central-northern functional region	Trenčiansky	North-western Slovakia	Trenčiansky	Žilina/Martin	Functional region North-western Slovakia
	Žilinský		Žilinský		
Central-southern functional region	Banskobystrický	Central Slovakia	Banskobystrický	Zvolen/Banská Bystrica	Functional region Central Slovakia
Eastern functional region	Prešovský	Eastern Slovakia	Prešovský	Košice/Prešov	Functional region Eastern Slovakia
	Košický		Košický		

In the field of nationwide and supraregional relationships of territory arrangement, settlement and residential structure, the binding part of KURS 2011 defines the terminology naming the particular settlement entities in their hierarchical configuration. For the purpose of scanning and evaluating of SD transport, traffic and environmental , the categories of core settlement areas and (residential) development axes of relevant levels are important. Nationwide even supraregional development is briefly defined by the promotion of core settlement areas as developing residential areas, the reinforcement of national settlement links between core settlement areas and the promotion of building the development axes.

In the field of international of territory arrangement, settlement and residential structure, the KURS 2011 uses the same terminology as in the case of nationwide and supraregional of territory arrangement. European dimension of international settlement is in the field of land-use planning shaped through the project ESPDP and process ESPON. In the context of these EU documents and materials, the settlement structure is defined through the FUA (Functional Urban Area) and MEGA (Metropolitan Growth Area) categories. Document of MVRR SR "Polycentric concept of the settlement as the instrument ensuring the functional complexity at regional and local level" - research task resulting from KURS 2001 - proved a compatibility with terms and terminology of KURS 2011 (core settlement areas ...) and terminology of ESDP and ESPON (MEGA, FUA, polycentric settlement systems ...). Within the ER, the terminology and contents of KURS 2011 are used and for cross-border settlement relationships as well as for documentation of settlement and transport links in the framework of FUA and polycentric systems, the compatible terminology of ESDP and Polycentric concept of the settlement is used.

Within assessed SD, the abovementioned formal and contents structure of terminology shall be followed. The self-governing regions do not possess a competence to define the priorities of settlement structure and links at nationwide and international levels. Used terms as the "conurbation" applied in case of Banská Bystrica and Zvolen need to be adjusted, with regard to the terminology and contents, according to KURS 2011 (core settlement area). Urban project "Banská Bystrica and Zvolen conurbation" arose at the turn of 1970s and 1980s; it reflected all attributes of then value priorities of ČSSR (directly controlled national economy) that are in conflict with adopted concept of polycentric development of the Slovak Republic and EU countries. Banská Bystrica and Zvolen conurbation represents the contents of so-called "Pohronský metropolitan region" of the Project of the urbanisation of the Slovak Socialist Republic <sup>35</sup> (hereinafter referred to as the "PU SSR").

35 Project of urbanisation of the Slovak Socialist Republic, approved by the Government of SSR, Resolution No. 284/1976.

SPRDI SR 2020 and SRVOND SR 2020 cannot accept demographically oversized municipal developing plans of cities and municipalities, projected into developing areas in land-use plans of municipalities, cities and regions. Situation is comprehensively documented by current analyses elaborated as supporting documents to ÚPN of Trnava or Bratislava region. According to them, the new developing residential areas in land-use plans of municipalities and cities presume increment of number of inhabitants in any region at least by 100 000 persons. The actual status and demographic development of settlement is not verified by discussed development trends, neither in the most economic developed Slovakia regions. Essentially, there are the trends which contradict with demographic prognosis of Slovakia and they reflect in practise rather the ambitions of cities and municipalities to regulate their development through the offer of areas. In case of applying development trends specified in the land-use plans of cities and municipalities, starting points and trends of shaping the State superior transport system within assessed SD (demographic data of prognosis included in Phase II of SPRDI SR 2020) would indicate false conclusions.

With regard to the compatibility with used terminology for corridors and axes in KURS 2001 and 2011, some terminology reservations may be raised against the names of road transport measures namely the "North-south communication axis in Central Slovakia" and the "East-west communication axis in Central Slovakia". In case of north-south communication axis this is a corridor where the middle part thereof constitutes a limiting component allowing to operate only the road transport. For this reason, the designation "road axis" is preferable to use. The name "Central Slovakia" does not correspond to spatial and regional continuities, see previous text on basic Slovakia zoning (axis connects the North-western and Central Slovakia regions). The name "North-south road axis in Central Slovakia" appears as preferable and it is used in land-use planning documents. The name "East-west communication axis in Central Slovakia" does not correspond with the hierarchy and terminology of west-east oriented corridors/axes of Slovakia. Three corridors connecting the west and east of Slovakia territory have been formed in native evolution. The initial and final points of the north, central and south corridors are in the most important core settlement areas i.e. Bratislava and Košice/Prešov, whereby Prešov represents an inflection point of the whole system. In case of "East-west communication axis in Central Slovakia" this is the North-western Slovakia connection (Trenčín and Stredné Považie) with the central western - eastern corridor.

### *Evaluation of measures*

In following paragraphs the tables and texts summarising the key aspects of environmental assessment are presented. It is necessary to accentuate that there is impossible to compare each other the numeric values of scoring of the railway, road, air, inland waterway, intermodal, public passenger and non-motorised transport measures. The reasons for it consist in the different composition of assessment criteria in particular in the field of assessment of relationship between the transport infrastructure and settled territory.

### *Evaluation of SD contents*

#### *Road transport*

SPRDI SR 2020 defined the following infrastructure measures for implementation of motorway and expressway networks which have been assessed at a level of strategic environmental assessment of impacts:

- 1. Completion of motorway D1;
- 2. North-south interconnection to Poland and Czech Republic;
- 3. North-south interconnection in Eastern Slovakia;
- 4. East-west communication axis in Central Slovakia;
- 5. North-south communication axis in Central Slovakia;
- 6. Road network in Bratislava agglomeration;
- 7. Completion of priority axis west-east of Slovakia;
- 8. Development of the I. class road network and expressway network outside TEN-T (expressways).

Except for R3 expressway sections between Martin and Šášovské Podhradie, the R7 expressway sections outside the Bratislava agglomeration and R8 expressway between the Nitra and Brezolupy, the measures finalize the complete planned network of motorways and expressways. All types of projects (green, yellow and red) classified according to SD criteria shall be a part of measures.



For the reason of logical continuity, all system of motorways and expressways has been in SEA divided into territorial sectors (among the node sections) within them the assessment has been carried out. Concurrently the territorial sectors allow to identify particular projects (adequately to the assessment by the EIA process) and at the same time they allow to compile defined measures (adequately to the assessment by the SEA process). The most detail assessment description – drawing from knowledge of EIA documentation – in the structure of territorial sectors and construction projects - is processed in tables of Annex 2.1 to the ER. Tables of assessment of particular measures - in the structure of territorial sectors - are presented in Chapter IV. 6.

Summary evaluation of compliance of road transport measures with ER environmental objectives is presented in following table.

Tab. 56 Summary evaluation of compliance of road transport measures with ER environmental objectives

Measure		Transport - settlement	Safety	Health	Soil	Rock environment	Water	Natural healing waters	National System of	Natura 2000	TSES	Total
Number	Name, road											
1	Completion of motorway D1	38.00	9.00	6.00	-7.00	-8.00	-7.00	-1.00	-3.00	-7.00	-7.00	13.00
12	North-south interconnection to Poland and Czech Republic, D3 and R5	12.00	3.00	4.00	-3.00	-4.00	-3.00	0.00	0.00	0.00	-3.00	6.00
3	North-south interconnection in Eastern Slovakia, R4 without concurrency with D1	0.25	2.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-2.75
4	East-west communication axis in Central Slovakia, R2	4.00	5.00	2.00	-4.00	-4.00	-4.00	-4.00	-2.00	-2.00	-4.00	-13.00
5	North - south communication axis in Central Slovakia, route R3	3.00	3.00	4.00	-3.00	-2.00	-3.00	-2.00	-3.00	-3.00	-3.00	-9.00
5	North - south communication axis in Central Slovakia, route R3-R1-R3	1.00	2.00	3.00	-3.00	-3.00	-3.00	-2.00	-4.00	-4.00	-3.00	-16.00
6	Road network in Bratislava agglomeration, D4, R1 and R7	9.50	3.00	4.00	-3.00	-2.00	-4.00	-1.00	-3.00	-5.00	-3.00	-4.50
7	Completion of priority axis west-east of Slovakia, R6	-0.50	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-2.50
8	Development of the I. class road network and expressway network outside TEN-T (expressways)	-4.00	3.00	3.00	-2.00	-1.00	-1.00	-1.00	0.00	-2.00	-2.00	-7.00

With regard to the current proposal for the TEN-T network, measures No. 1 and 2 prefer a completion of the construction of key road routes i.e. the D1 and D3 motorways, included in core TEN-T network. The best results have been obtained in evaluation of their compliance with ER environmental objectives.

Within a context of settlement establishing primary requirements for transport infrastructure implementation, the measure "Completion of motorway D1" is situated:

- within northern west-east corridor with the highest share of inhabitants resident in the 15 min transport services isochrone;
- within corridor concurrently identical with the residential development corridor of highest level interconnecting the core settlement areas of highest importance (concurrently the polycentric settlement systems, FUA) Bratislava/Tmava, Trenčín, Žilina/Martin, Košice/Prešov;
- within corridor with high share of road sections substituting the motorway function situated in residential areas of cities and municipalities;
- within the corridor with high values of AADT on roads substituting the motorway function;
- within the corridor which has no variant solution with regard to the abovementioned specifications.

In the context of landscape and environment components, the completion of D1 motorway in Slovakia is situated:

- in a single sector with significant negative impact on Natura 2000 sites and TSES;
- in five sectors with slightly negative impact on Natura 2000 sites and TSES;
- in sectors with slightly negative and zero impact on environment components.

The measure „Completion of D1 motorway D1“ obtained the best complex evaluation of compliance with environmental objectives. As arguable section of the measure, in which negative impacts predominate over the positive gains, the section Turany – Hubová (negative impacts on Natura 2000

sites, TSES and rock environment) has been evaluated. In this section an expert appropriate assessment of D1 impact on protection subjects according to the Article 3 of the Directive 92/43/EEC has been carried out. This assessment has been performed by RNDr. Petr Roth, CSc., in July 2012. For 3 subjects of protection - type of European habitat 3220 - mountain water courses and grasslands along their banks, brown bear and lynx - it has been stated, that the plan in current version has significant negative impacts on them. NDS subsequently elaborated a document - Technical measures to mitigate the impact of D1 in section Turany Hubová on Natura sites - and requested a subsequent additional assessment for objects that had been identified in previous assessment as significantly affected. At the end of completed appropriate assessment of proposed technical measures it has been stated, that D1 construction will have no negative impact on integrity of affected Natura 2000 sites.

In comprehensive evaluation the significant positive impacts of settlement context predominate over the negative impacts on environment components. These may be mitigated by certain measures and through the procedure of solution of conflicts with Natura 2000 sites harmonising the investment preparation with requirements of the Articles 6(3) and 6(4) of the Habitats Directive.

In the meaning of abovementioned assessment, the SEA recommends to implement the measure Completion of motorway D1.

In the context of settlement establishing primary requirements for transport infrastructure implementation, the measure "North-south interconnection to Poland and Czech Republic", represented by the motorway D3 and the expressway R5, is situated:

- within the western north-south corridor with the highest share of inhabitants resident in the 15 min transport service isochrone;
- within the corridor concurrently identical with the development residential corridor of highest level interconnecting the core settlement area of highest importance (concurrently the polycentric settlement system FUA) Žilina/Martin with polycentric systems of MEGA type Katowice and Ostrava;
- within corridor with high share of road sections substituting the motorway function situated in residential areas of cities and municipalities;
- within the corridor with high values of AADT on roads substituting the motorway function, in some sections with more than 50% of heavy freight transport;
- within the corridor which has no variant solution with regard to the abovementioned specifications.

In the context of landscape and environment components, the measure "North-south interconnection to Poland and Czech Republic", represented by D3 motorway and the expressway R5, is situated:

- in the entire corridor without impact on Natura 2000 sites and National System of Protected Areas, in three sections with slightly negative impact on TSES;
- in single sector with significant negative impact on the rock environment;
- in other sectors corridors with slightly negative even zero impact on environment components.

The measure "North-south interconnection to Poland and Czech Republic" represented by D3 motorway and expressway R5 obtained the second best complex evaluation of compliance with environmental objectives. Within the measure, the D3 motorway Svrčinovec – Skalité – SR/PR borders appears as slightly environmentally arguable section. In affected section an interference with the landscape picture will occur, the ecological stability and migration passability will be influenced. In case of compliance with measures for increase in connectivity of habitats and elimination of barrier effect, the impacts are assessed as moderate (for this purpose the construction includes a tunnel solution, bridges).

In the meaning of abovementioned evaluation, the SEA recommends to implement the measure "North-south interconnection to Poland and Czech Republic" represented by the construction of motorway D3 and expressway R5.

The complete measure "North-south interconnection in Eastern Slovakia" includes the R4 expressway and a concurrent section of D1 motorway. More reliable results of assessment are represented by the measure without section of R4 expressway parallel to D1 motorway. In the context of settlement establishing primary requirements for transport infrastructure implementation, the measure "North-south interconnection in Eastern Slovakia", represented by R4 expressway, is situated:

- in the part of eastern north-south corridor with the second highest share of inhabitants resident in the 15 minutes transport services isochrone;

- within the corridor other than development residential corridor;
- in the corridor the objective thereof is to establish interconnection of the core settlement area of highest importance (concurrently the polycentric settlement system FUA) Prešov/Košice with polycentric system and FUA of international importance Rzeszow;
- outside the parallel corridor with high share of road sections substituting the expressway function situated in residential areas of cities and municipalities;
- within the corridor with minimum values of AADT on the route of prepared expressway;
- within the corridor which has variant solution with regard to the abovementioned specifications.

In the context of landscape and environment components, the measure "North-south interconnection in Eastern Slovakia", represented by R4 expressway, is situated:

- in the entire corridor with slightly negative impact on Natura 2000 sites, National System of Protected Areas and TSES;
- in the entire corridor with slightly negative even zero impact on environment components.

The measure "North-south interconnection in Eastern Slovakia" represented by R4 expressway obtained the fourth best complex evaluation of compliance with environmental objectives. A global positive effect and result of evaluation is decreased by expressway localisation in the new axis in substantially not settled territory outside the residential corridor and the densest network of municipalities in territory. In comparison with origin route of planned expressway, supporting also transport services of the settlement, the objectives for ensuring the long distance freight transport in north-south interconnection prevail in a new expressway route. This fact needs to be assessed negatively in the context of entry of the highest rank transport infrastructure in the non-urbanised territory. In affected territory a considerable interference with the landscape picture will occur. There shall be justified to require a new re-assessment of R4 expressway route aimed at the ensuring better transport services of settled territory without unjustified interferences with non-urbanised landscape. This requirement refers to the sections of expressway between Svidník and Hanušovce nad Topľou and Lipníky. In the context of predicted AADT for the zero variant and the variant of construction of R4 expressway in the section SR/PR border – Svidník – Lomné it shall be necessary to re-assess also justification of the construction of road in new route having the parameters of the expressway.

Referring to the proposal for new TEN-T network, where mentioned section has been classified in the category of existing upgraded roads, SEA recommends to re-assess the routing as well as the method of construction in a category of expressways. However, predicted AADT values for section of Prešov north bypass justify to build-up a new communication with parameters of 4 lane expressway already by year 2020. The re-assessment should be performed within the feasibility studies with verification through the transport model of the SPRDI SR 2020 Phase II.

In the context of settlement establishing primary requirements for transport infrastructure implementation, the measure "East-west communication axis in Central Slovakia", represented by R2 expressway, is situated:

- within the corridor established by connection of two development residential axes of 2<sup>nd</sup> level, interconnecting the core settlement area of nationwide importance (concurrently the polycentric settlement system) Trenčín with Prievidza core settlement area of the 2<sup>nd</sup> level and Žiar core settlement area of the 3<sup>rd</sup> level, the first group;
- within the corridor with high share of road sections substituting the expressway function situated in residential areas of cities and municipalities, with AADT values adequate to four lane layout by 2020;
- within the corridor which has variant solution for the part of its section with regard to the abovementioned specifications.

In the context of landscape and environment components, the measure "East-west communication axis in Central Slovakia", represented by R2 expressway, is situated:

- in two sectors with slightly negative impact on Natura 2000 sites, National System of Protected Areas and in all sectors with slightly negative impact on TSES;
- in all sectors with slightly negative impact on environment components.

The measure "East-west communication axis in Central Slovakia" represented by R2 expressway obtained the eighth best complex evaluation of compliance with environmental objectives. With regard to the hierarchy of settlement and transport axes, this measure consists of east half of Central west-

east corridor (Zvolen – Košice) and connecting of north-west Slovakia to Central west-east corridor. However primary functional trend represents – with regard to provided accessibility of Eastern Slovakia through the D1 motorway – the connecting of west part of north-west Slovakia (Trenčín and Stredné Považie) to the Central Slovakia, with Banská Bystrica/Zvolen core settlement area. A localisation of prepared R2 expressway between Handlová and Žiar nad Hronom has the variant solution examined by the NDS, Inc. through the technical studies. A location of the expressway in this section directly relates to the route of R3 and R1 expressways. R2 and R3 expressway routes avoid the connection to Banská Bystrica/Zvolen core settlement area and they lead to the connection on the R1 expressway in Žiar nad Hronom city. Residential preferences are so degraded on two expressways in affected area to the level of core settlement area of the third level. Mentioned inefficient expressway routing is underlined by the fact, that the Slovak Republic such roads arrangement submits as a part of the proposal for road system of TEN-T (R3 as a part of core network, R1 and R2 as a part of comprehensive network). A relationship with the R1 expressway in Banská Bystrica – Ružomberok section is described in paragraphs concerning with Central Slovakia north-south communication axis. Predicted AADT values of relevant road sections in corridors of prepared R1, R2 and R3 expressways do not achieve, even by 2020, the informative values of categories of 4 lane roads. In case of R1 and R2 expressways, the proposal for TEN-T network includes also upgrading of existing I. class roads (I/50 and I/59 roads).

Referring to the text in the paragraph concerning with R1 expressway, the SEA recommends to optimize the routing of R1, R2 and R3 expressways in affected territory (areas of Handlová – Turčianske Teplice – Ružomberok – Banská Bystrica – Zvolen – Žiar nad Hronom – Handlová) by means of transport model in the SPRDI SR 2020 Phase II. In the same way the category, method of construction and routing of communication in the corridor of prepared R2 expressway in section from Rimavská Sobota to entry into Košice agglomeration needs to be considered. In abovementioned section predicted AADT values on the I/50 road will not achieve the orientation level adequate for the 4 lane configuration of the road neither till 2040. A construction of R2 expressway with 2 lanes in a new route parallel to previous I/50 road needs to be deemed insufficient and creating unjustified landscape fragmentation. The proposal of TEN-T network supposes in the corridor of R2 expressway an upgrading of existing I. class road.

The MDVRR, the Section of road transport and infrastructure, defines the measure East-west communication axis in Central Slovakia within the SEA process as follows: "North-south axis is designed in corridors of the planned expressway R3 in the entire route and the expressway R1 Zvolen - Banská Bystrica - Ružomberok and the European road E77 and both routes are currently being used for transit transport in the north - south relation. From executed traffic models, both routes are coming out as equal concerning the importance for transport in the north - south routing. Corridors of expressways R1 and R3 are defined in the Annex 2 of the Act No. 135/1961 Coll. on Roads as amended. Priorities of north - south axis are defined within each planned section/project of R1 and R3, through the so-called traffic lights system in the Annex 1 to the SPRDI SR 2020.

In the context of settlement, establishing primary requirements for transport infrastructure implementation, the measure "North - south communication axis in Central Slovakia", route R3-R1-R3, represented by R1 and R3 expressways, is situated:

- within the corridor established by development residential axis of the second grade and development residential axis of the third grade, which are not interconnected through the development residential axis in the middle section between the Banská Bystrica/Zvolen core settlement area of the first level and Ružomberok/Dolný Kubín/Liptovský Mikuláš core settlement area of the second level;
- within the central north-south corridor with the lowest share of inhabitants resident in the 15 min transport services isochrone;
- within the corridor with one road section substituting the expressway function, situated in residential areas of cities and municipalities and achieving informative AADT values adequate to four lane arrangement by 2040 (Oravský Podzámok – Dolný Kubín – Ružomberok);
- outside the corridor with one road section substituting the expressway function, situated in residential areas of cities and municipalities and achieving informative AADT values adequate to four lane layout by 2040 (Banská Bystrica – Donovaly – Korytnica);
- within the corridor which has alternative solution with regard to the abovementioned specifications.



In the context of landscape and environment components, the measure "North-south communication axis in Central Slovakia", R3-R1-R3 route, represented by R1 and R3 expressways is situated:

- in a single sector with significant negative impact on Natura 2000 sites, National System of Protected Areas and in all sectors with slightly negative impact on TSES;
- in all sectors with slightly negative impact on environment components.

The measure "North - south communication axis in Central Slovakia" route R3-R1-R3, represented by R1 and R3 expressways obtained the worst complex evaluation of compliance with environmental objectives, of all measures/alternatives. The most problematic sector of all assessed sectors is Banská Bystrica – Ružomberok section in which the minimum positive signs of residential aspects are combined with significant negative impacts on nature protection and Natura 2000 sites, and with slightly negative impacts on environment components. Territorial sectors Trstená – Ružomberok – Banská Bystrica – Zvolen constitute a part of the proposal for comprehensive TEN-T network; the section Zvolen – Šahy – SR/MR border is a part of the proposal for core TEN-T.

The perpendicular distance between the parallel north-south oriented branches (R3 Martin - Turčianske Teplice - Zvolen and R1 Ružomberok - Banská Bystrica - Zvolen) varies between 14 km in the south to a maximum of 28 km in the north.

In 2008 were updated NPVDRC defines an extended network of expressways, among others, also stretch R1 expressway Banská Bystrica - Ružomberok on the ground "in terms of transport policy and the principles for organizing road network, the beginnings and endings of motorways and expressways are located on the borders of neighboring State highway or expressway. For this reason was adjusted R1 expressway on a new extension, which will ensure the smooth connection to the highway D1, detour laden mountain passes Donovaly ". Strategic document with a nationwide scope "New Project of motorways and expressways - Supplement no. 1" is supplement of this basic strategic document.

An extension of R1 expressway with the section Banská Bystrica – Ružomberok is supported by the Act No. 8/2009 Coll. of 3 December 2008, on road traffic and on amendments of some Acts, published in Collection of Laws No. 4/2009, p. 38; in the "Annex No. 2 to the Act No. 135/1961 Coll., The list of motorways and expressways", the R1 expressway is specified as "R1 Trnava – Nitra – Žarnovica – Žiar nad Hronom – Zvolen – Banská Bystrica – Ružomberok". However, the assessment of R1 expressway Banská Bystrica – Ružomberok extension within the SEA process has not been finished by the date of this Act adoption in December 2008.

For the section of R1 expressway Banská Bystrica – Ružomberok the SEA assessment has been carried out in November 2009 according to the Act No. 24/2006 coll. named as the "New project of construction of motorways and expressways - Appendix 1" the purpose of which has been the "Extension of R1 expressway Trnava – Nitra – Žarnovica – Žiar nad Hronom – Zvolen – Banská Bystrica by a new section Banská Bystrica – Slovenská Ľupča – Ružomberok (connecting to the D1 motorway)". According to abovementioned Appendix 1 "proposed solution will provide for required technical and capacitive parameters, transport comfort of road communication, traffic fluency and safety and thus also general development of territories in particular in Central and Eastern Slovakia. Propose route takes a role of the main transit route not only in affected territory but partly also in relation to the transit transport north-south and east-west; thus the high congested routes of I/66 and I/59 roads will be relieved and they may be preferably used for the source and target transport.

The strategic document of nationwide extent "New project of construction of motorways and expressways - Appendix 1" specifies the route of extension of R1 expressway divided into following four sections:

- section 1 - R1 Banská Bystrica – northern bypass;
- section 2 - R1 Banská Bystrica – Slovenská Ľupča;
- section 3 - R1 Slovenská Ľupča – Korytnica (border of Banská Bystrica and Žilina regions);
- section 4 - R1 Korytnica (region border) – Ružomberok (connection to D1 motorway).

Exactly defined route of R1 expressway subjected to SEA assessment process, promoted by the Act No. 8/2009 Coll. of 3 December 2008, on road traffic and on amendments of some Acts, decides in advance the result of the next SEA process. The Environmental Report on the mentioned process includes the assessment and comparison of environmental impact of routes of the "North-south communication axis in Central Slovakia" (route R3-R1-R3 and route R3) defined within the SPRDI SR 2020. The variant of the expressway route running through the corridor approved by the Regulation of



the Government of the Slovak Republic in the binding part of KURS 2011, Martin - Turčianske Teplice - Banská Bystrica, was neither included into the assessment of impacts within SEA nor into the Environmental Report. The length of the route of the R1 expressway in section Banská Bystrica - Ružomberok - Hubová is approximately 20 km shorter than the length of the not considered expressway in the corridor Banská Bystrica - Turčianske Teplice - Martin - Hubová.

To identify the prognosis of the road traffic volumes in a new corridor of R1 expressway in Banská Bystrica – Ružomberok section and for the purpose of ER, the transport engineering analysis has been elaborated (hereinafter referred to as the "TEA"). In comparison with calculation of traffic volumes according to the valid MDPT SR methodology "Methodical instruction and guide for forecasting of perspective volumes on the road network by 2040" (hereinafter referred to as the "MP 1/2006"), an unjustified increasing in predicted road traffic volumes in corridor of a new section of R1 expressway has been determined in TEA. Most significant values of AADT increasing relates to the zero variant, i.e. the I/59 road which stipulates the requirement for increase in road communication capacities in the corridor through the construction of a new R1 expressway Banská Bystrica – Ružomberok. AADT increasing in the Banská Bystrica – Ružomberok corridor is expressed through the coefficients in the following table.

Tab. 57 increase in AADT in TEA in comparison with AADT according to valid methodology MP 1/2006, valid for zero variant

Road	Census section	Section localisation	AADT increase coefficient			
			2015	2020	2030	2040
I/59	90670	Ulanka – Donovaly	1.47	1.52	1.60	1.68
I/59	90680	Donovaly – Korytnica	1.52	1.57	1.65	1.73
I/59	90690	Korytnica – Liptovská Osada	1.54	1.59	1.69	1.77
I/59	90700	Liptovská Osada – Biely potok	1.46	1.51	1.60	1.67
I/59	90711	Biely potok – Ružomberok south	1.43	1.48	1.58	1.66

More recent document concerning modelling of the traffic volumes on expressways under preparation in the monitored territory, allowing to analyse calibrated traffic situation and forecast traffic load, was not made available to authors of the Environmental Report.

The outcome of the strategic document is an Opinion No.: 8403/09-3.4/ml of 4 May 2010, issued by the Ministry of Environment of the Slovak Republic according to the Article 18, paragraph 12 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations. Based on the outcome of the assessment of impacts on environment in accordance with the Act provisions, the approval of strategic document of nationwide extent "New project of construction of motorways and expressways - Appendix 1" is recommended provided, that the conditions and measures specified in part VI/3 of this Opinion will be observed. The recommended expressway R1 route in the section Banská Bystrica – Slovenská Ľupča – Korytnica – Ružomberok has been specified by a strategic document with nationwide coverage "New project of construction of motorways and expressways - Appendix 1"

In October 2009, the EIA assessment according to Annex 8 to the Act No. 24/2006 Coll. has been completed; this assessment relates to the construction of the road "I/59 (R1) Banská Bystrica – region border – Ružomberok D1". In the final opinion of MŽP SR No. 2354/2010–3.4/ml is stated: "the implementation of proposed activity "I/59 (R1) Banská Bystrica – region border – Ružomberok D1" for the proponent Slovenská správa ciest, a.s. Bratislava, Investičná výstavba a správa Banská Bystrica shall be recommended, provided that the conditions will be observed and measures stated in Chapter VI.3 of final opinion, which shall be taken into account in decision-making on the activity permission, will be implemented. The point 46 of measures includes condition related to the building permission on the basis of considering the urgent reasons of higher public interest.

The letter of Správa Národného parku Nízke Tatry No. NAPANT/1065/2010 of 20 October 2010 in case of I/59 and I/66 (R1) Slovenská Ľupča – Korytnica, region border (DÚR) disagrees with the issue of territorial decision for the construction of "I/59 and I/66 (R1) Slovenská Ľupča – Korytnica, region border". The reason for its disagreement is the point 46 of measures stated in the Final opinion from the process of assessment of impacts on environment No. 2354/2010-3.4/ml; according them it is necessary to take, in advance of issue the territorial decision, respective administrative steps with regard to the appearance of priority habitats and species. Proposed activity may be permitted only for such urgent reasons of higher public interests that relate to the public health, public safety or favourable consequences of principal importance for environment or, if according to the European Commission opinion, the activity is connected with other urgent reasons of higher public interests.

On the 1 January 2014, the Act No. 506/2013 Coll, amending the Act, No. 543/2002 Coll. on the protection of nature and landscape, as amended. Pursuant to the § 104 b section i of the mentioned amendment, proceedings started and lawfully not completed by 31 December 2013, will be completed according to this Act. According to the § 28 par. 6 of the amendment, the plan or project, which could have a negative impact on integrity of the territory can be approved or allowed only if it is proved that there are no alternative solutions and it must be carried out for imperative reasons of public interest, including those of a social or economic nature. In this case, compensatory measures necessary to ensure that the overall coherence of the European network of protected areas Natura 2000 is protected will be adopted. Pursuant to § 28 par. 7 when there are priority habitats or priority species in a protected area, a plan or project which may adversely affect the integrity of the territory, may be approved or allowed only for imperative reasons of public interest concerning public health and public safety or beneficial consequences of fundamental importance for the environment and for other imperative reasons of public interest on the basis of the opinion of the European Commission.

For better understanding of relations of the proposal for extension the R1 expressway into the corridor Banská Bystrica – Korytnica – Ružomberok, the genesis of particular initiative evolution shall be presented. Till the year 1975 so-called tourist road No. T7 of the countries of Council for Mutual Economic Assistance (hereinafter referred to as the "RVHP") has been localised in the route ... Krakow - Trstená – Ružomberok - Banská Bystrica - Zvolen - Šahy – Budapest. The European Agreement on Main International Traffic Arteries (hereinafter referred to as the "AGR"), in Slovakia valid from 26 November 1986, played an important role. From the date of Agreement adoption in 1975, the main AGR road designated as E75 has been situated in abovementioned route. Now a secondary road designated as E77 is situated in abovementioned AGR route; the main AGR road E75 is led in route ...Katowice – Český Těšín – Žilina – Bratislava – Budapest.

In residential and land-use planning continuities the road route Trstená – Ružomberok - Banská Bystrica - Zvolen – Šahy represented the main central north-south urbanisation axis of PU SSR. A road axis has been concurrently the main urbanisation and transport axis of Central Slovakia region interconnecting the core of Pohronský metropolitan Banská Bystrica – Zvolen region and the region north and south parts. KURS 2001 proposed in its binding part, to recover the function of international tourist road for the road section Banská Bystrica – Ružomberok. KURS 2011 (taking into account of the Act No. 8/2009 Coll. of 3 December 2008, on road traffic and on amendments of some Acts, in which an extension of R1 expressway in Banská Bystrica – Ružomberok section has been approved) included in its binding part "11.7. To respect transport infrastructure classified according to European agreements (AGR)" pertracted section as a part of the European agreement AGR "11.7.6.

E 77 (Pskov – Riga – Gdansk – Warszawa – Krakow) – Trstená – Ružomberok – Banská Bystrica – Zvolen – Šahy – (Budapest).“ From the binding part of the KURS 2011 it is clear that no expressway is defined in this corridor.

A problem section of an extension of R1 expressway in Ružomberok – Banská Bystrica – Zvolen section does not constitute a part of valid system of the TEN-T network; it is a part of proposed comprehensive TEN-T network in which the upgrading of existing I/59 road is considered.

KURS 2011 states in its regulator No. 2.27.6: "To support the building of development axes in the interest of balanced hierarchized residential structure. To support as the development axes of the first grade zvolensko – turčiansku development axis: Zvolen – Banská Bystrica – Turčianske Teplice – Martin (in section Banská Bystrica – Turčianske Teplice as the communication-residential axis)".

In the context of settlement, establishing primary requirements for transport infrastructure implementation, the measure "North - south communication axis in Central Slovakia", route R3, represented by the R3 expressway, is situated:

- within the corridor established by development residential axis of the first grade (in Martin – Turčianske Teplice section), development residential axis of the second grade and by two development residential axes of the third grade;
- in the interconnection of core settlement areas of the second level Ružomberok/Dolný Kubín/Liptovský Mikuláš, the first level Martin/Žilina, the third level Žiar nad Hronom, the first level Zvolen/Banská Bystrica;
- within the corridor with two road sections substituting the expressway function, situated in residential areas of cities and municipalities and achieving informative AADT values adequate to four lane arrangement by 2040 (Oravský Podzámok – Dolný Kubín – Ružomberok and Martin - Rakovo);

- within the corridor which has alternative solution with regard to the abovementioned specifications.

In the context of landscape and environment components, the measure "North-south communication axis in Central Slovakia", R3 route, represented by the R3 expressway is situated:

- in all sectors with less negative impact on Natura 2000 sites, National System of Protected Areas and TSES;
- in all sectors with slightly negative impact on environment components.

The measure "North - south communication axis in Central Slovakia", route R3 achieved the seventh best complex evaluation of compliance with environmental objectives, of all measures/routes. In comparison with routes assessment within the measure "North - south communication axis in Central Slovakia" the better results have been obtained in case of R3 route. The re-routing of communication axis from the section of R1 expressway Banská Bystrica – Ružomberok may be qualified as determining contribution of R3 route reflected in its better assessment. Abovementioned section shows significant negative impact on Natura 2000 and National System of Protected Areas; it is situated into the native environment outside the classified development residential axes of the Slovak Republic.

The R3 route in its middle section is re-routed in the line Martin – Turčianske Teplice – Šášovské Podhradie and continues through the connection to the parallel part to the R1 expressway Šášovské Podhradie – Zvolen.

Likewise as in case of the R3-R1-R3 route, the genesis of continuities and initiatives related to the localisation of R3 expressway into the evolution corridor Martin – Turčianske Teplice – Šášovské Podhradie shall be presented.

For the purpose of coordinated incorporation of transport networks of countries accessing to the EU, in 1990s the project "Transport Infrastructure Needs Assessment"<sup>36</sup> (hereinafter referred to as the "TINA") has been implemented. After the access of countries to the EU the TINA network has been incorporated into the TEN-T network. Supplementary network in Slovakia created two north-south corridors. A central corridor was situated in the route Martin - Turčianske Teplice - Zvolen - Šahy - Budapest. An eastern corridor connected Rzeszow with Miskolc through Vyšný Komárnik - Prešov - Košice - Milhost'. The New project of the construction of motorways and expressways in the Slovak Republic<sup>37</sup> (hereinafter referred to as the "NPVDRC") proposed to implement the expressways in TINA specified corridors. The routing of central north-south corridor outside the core area of Banská Bystrica – Zvolen core settlement area may be qualified as an apparent deficiency of positioning the TINA road network in residential relations - and then also the R3 expressway.

In the framework of the valid status of TEN-T network, the section of road Martin - Turčianske Teplice – Šášovské Podhradie shall be a part of TEN-T network; in current proposal of TEN-T network the abovementioned section is classified in the core TEN-T network.

A complex evaluation of compliance with environmental objectives, with regard to the measure "Central Slovakia north-south communication axis" R3 route, may be further optimised from the perspective of connecting the most important core settlement areas and the axis localisation within the most important development residential axes of Slovakia. The Martin – Turčianske Teplice section shall be a part of development residential axis of the first grade, which continues - according to the KURS 2011 and the General Plan of the road transport in SR (hereinafter referred to as the "ÚGCD SR") - as the residential-communication axis in the line Turčianske Teplice – Banská Bystrica – Zvolen. Through the adjustment of R3 route of the measure "Central Slovakia north-south communication axis" in the middle section into the line Martin – Turčianske Teplice – Banská Bystrica – Zvolen, the new improvement of new residential aspects in evaluating the compliance with environmental objectives will be achieved.

Also new settlement and transport relationships in the section Zvolen – Šahy –SR/Hungary border may be deemed as a study open issue. Predicted traffic volumes of section by 2040 account for

<sup>36</sup> Project of transport network of countries of EU accession process, TINA Final Report, Drafted by the TINA Secretariat on the basis of the work done by the TINA Groups, October 1999.

<sup>37</sup> Approved by the Resolution of the Government of the Slovak Republic No. 162/2001 of 21 February 2001

around 9 000 vehicles per 24 hours authorises to look for the options of expressway alternative routing with more efficient transport service parameter of settled territory and with higher value of expressway multiplication effect. With regard to ongoing process of modification of the TEN-T network and in cooperation with Hungary, the option to use a parallel running with R2 expressway in Zvolen - Lučenec section is available; this would continue through a new R3 expressway across the Filákov to the border with Hungary in Šiatorská Bukovinka. A binding part of KURS 2011 includes the point 2.3 promoting such option to re-route the expressway.<sup>38</sup> A considerable contribution of the procedure under consideration shall through a parallel running achieved savings of costs for implementation of the express way in the corridor Zvolen – Šahy where, with regard to the predicted AADT value, the reconstruction of existing road with the bypasses of cities and municipalities is sufficient.

Referring to the previous analytical text related to the status of preparation and implementation of R1 expressway in Banská Bystrica – Ružomberok section, to the text dealing with the improvement of residential aspects of evaluation of compliance of the measure with the R3 route „North-south communication axis in Central Slovakia" environmental objectives and to the text dealing with the measure "East-west communication axis in Central Slovakia", the ER recommends:

- within the transport model of the Phase II of SPRDI SR 2020, to solve completely the following: to demonstrate a justification of building the new R1, R2 and R3 expressways, eventually upgrading the existing I. class roads in the spare delimited by the settlements Handlová – Turčianske Teplice – Ružomberok – Banská Bystrica – Zvolen – Žiar nad Hronom – Handlová;
- in the same way, to verify the options and contribution of re-routing the R3 expressway into the concurrency with the R2 expressway in Zvolen – Lučenec section with continuation to the border passage Šiatorska Bukovinka;
- with regard to the nature and landscape protection, to follow a procedure laid down for defining the higher public interest in accordance with the Article 6 of the Directive 92/43/EEC on Habitats;
- with regard to the development of the settlement and transport infrastructure, to follow the binding regulator No. 2.27.6 of the Regulation of Government of the Slovak Republic No. 528/2002 Coll., declaring the binding part of the Slovak Spatial Development Perspective 2001 and KURS 2011.

In the context of settlement establishing primary requirements for transport infrastructure implementation, the measure "Road network in Bratislava agglomeration", represented by D4 motorway and R1 and R7 expressways, is situated:

- within uniform Bratislava-Trnava-Nitra core settlement area of international importance connected to the highest European polycentric system of agglomerations and cities (a part of higher Pan-European agglomeration Vienna – Bratislava – Győr);
- within the Slovak development residential axes of the first grade Považie and Záhorie and development residential axis of the second grade Žitný ostrov - Dunaj;
- with direct link to the one of main European urbanisation axis Salzburg/Linz – Vienna/Bratislava – Budapest;
- within development residential axis Žitný ostrov - Dunaj, in which the first section substituting the expressway function is situated in residential areas of cities and municipalities.

In the context of landscape and environment components, the measure "Road network in Bratislava agglomeration", represented by D4 motorway and R1 and R7 expressways, is situated:

- in one sector with significant negative impact on Natura 2000 sites as well as National System of Protected Areas, in one sector with significant negative impact on Natura 2000 sites and in all sectors with slightly negative impact on TSES;
- in all sectors with slightly negative, even zero impact on environmental components.

38 2.3. In the interest of creating the nationwide uniform and internationally competitive settlement environment, to promote in the central part of republic equally distributed settlement system of the cities and establishment of interconnection of Žilina-Martin and Banská Bystrica-Zvolen settlement centres with the aim to support, in the south part of the Slovak Republic, the creation of Lučenec-Rimavská Sobota settlement centre which will be equivalent to the other centres and the interconnection thereof will fully support the development of all central-south territory of the Slovak Republic.



The measure "Road network in Bratislava agglomeration" represented by D4 motorway and R1 and R7 expressways obtained the fifth best complex evaluation of compliance with environmental objectives. The most problem sector of all assessed sectors is the section of D4 motorway. With regard to the interference with Natura 2000 sites, an assessment of impact on status of territory has been carried out in accordance with the Article 28 of the Act No. 543/2002 Coll. No significant impact on protection subject, for which the areas have been designed, was determined. It is necessary to consistently implement all measures resulting from conclusions of the D4 motorway assessment. In the proposal of TEN-T network the D4 motorway is included as the planned communication within a comprehensive network.

NDS prepares the project to rebuild D1 motorway in the section Bratislava – Trnava to 6 lane layout along with the building the collectors (parallel one-way roads with two lanes). The reasons for action consist in satisfying the capacity of D1 motorway between Bratislava and Trnava. Expected acquisition should be an increasing in transport performance and traffic safety on the motorway. The motorway is drafted in D 33.5/120 category and one-way roads in C9.5/80 category.

The same problem in satisfying the capacity of D1 motorway in Bratislava – Trnava section is partly solved also in NDS project of building the R1 expressway in Most pri Bratislave – Vlčkovce section. In the project of expressway the context with transport services of settled area with parsons daily commuting to Bratislava may be recognised. Diverting the traffic from D1 motorway to a new section of R1 expressway should result in the reduction of transport congestion on D1 motorway. The route of a new R1 expressway section is essentially proposed as parallel to existing D1 motorway. The distance of the nearest variant of R1 expressway from D1 motorway in the Trnava region territory is around 5 km, the distance of an extreme variant of R1 expressway from D1 motorway is around 10 km. Abovementioned fact creates conditions for high-standard transport services of area, which will be concurrently the stimulus for intense urbanisation of intermediate space between D1 motorway and R1 expressway. It is necessary to note, that this relates to the areas of highest pedologic agricultural soils.

Within the Phase II of SPRDI SR 2020 the ER recommends to simulate an optimal capacity configuration and routing of radial communications (D1 motorway with 6 lanes, a new section of R1 expressway, I/61 road) taking into account the potential of integrated transport system in Bratislava.

In the context of settlement the measure "Completion of priority axis west-east of Slovakia", represented by R6 expressway, is situated:

- within the corridor concurrently identical with the development residential corridor of highest level interconnecting the Považská Bystrica - Púchov core settlement area of the second level and the Czech Republic and FUA Zlín;
- within the corridor where the origin road will not achieve by 2040 informative AADT values justifying the implementation of the road 4 lane layout;
- within the corridor which has no variant solution with regard to the abovementioned specifications.

In the context of landscape and environment components, the "Completion of priority axis west-east of Slovakia", represented by R6 expressway, is situated:

- in entire corridor without impact on Natura 2000 sites and National System of Protected Areas, with slightly negative impact on TSES;
- in other sectors corridors with slightly negative even zero impact on environment components.

The measure "Completion of priority axis west-east of Slovakia" represented by R6 expressway, obtained the third best complex evaluation of compliance with environmental objectives. The measure does not affect the Natura 2000 and National System of Protected Areas. In the proposal of TEN-T network the communication is included as the upgraded existing road within a core network.

It may be assumed that after building the continuous route of R49 expressway in the Czech Republic and R6 in Slovakia, this route should take a significant part of transit transport from the Drietoma border passage as well as Makov passage, where the freight transport runs on the I/18 and I/50 roads across large-scale protected areas.

Transport supporting documents of Geoconsult Bratislava technical study "R6 expressway Púchov - SR/CR border" from 2005 demonstrate, that in the Mestečko - Púchov section the R 11.5 category of R6 expressway will be capacitive sufficient by 2020 for the travel speed of 70 km/h. In the same section the R 11.5 category will be by capacitive sufficient by 2040 only for the travel speed of 60 km/h, what according to the standard STN 73 6101 will not conform to requirements for expressways.



This status requires the implementation of expressway by 2040 in R 22.5 category. The status by 2020 in which the capacitive not used route of R6 expressway in R11.5 category would be implemented in parallel to capacitive not used I/49 road may be deemed as oversized and involving the groundless territory fragmentation. As the option would be the implementation of R6 expressway by 2040 in R 22.5 category, whereby the reconstruction of existing I/49 road for uniform C 11.5 parameters by 2020 would be carry out.

The ER recommends to examine in detail through the feasibility study the options for configuration and phasing of communication construction within the particular measure.

The measure "Development of the I. class road network and expressway network outside the TEN-T" (expressways) does not create continuous road structure. Within the measure two expressways are considered; R7 expressway in continuation from the border of Bratislava agglomeration in Dunajská Streda and complete R8 expressway in Ponitrie. Therefore a summary assessment for abovementioned roads cannot be carried out.

In the context of settlement establishing the measure "Development of network of I. class roads and expressways network outside the TEN-T" (expressways), represented by R7 expressway, is situated:

- within the south corridor identical with the residential development corridor of the second grade interconnecting the Nové Zámky – Komárno and Lučenec - Rimavská Sobota core settlement area of the second level;
- within the corridor where the origin road will not achieve by 2040 informative AADT values justifying the implementation of the road 4 lane layout;
- within the corridor which does not have essentially different variant solution with regard to the spatial specifications.

In the context of settlement the measure "Development of network of I. class roads and expressways network outside the TEN-T" (expressways), represented by R8 expressway is situated:

- within the south corridor identical with the residential development corridor of the second grade interconnecting the Nitra core settlement area of the nationwide importance second level and core settlement area of the third level (Bánovce nad Bebravou – Partizánske);
- within the corridor where the origin road will not achieve by 2040 informative AADT values justifying the implementation of the road 4 lane layout;
- within the corridor which does not have essentially different variant solution with regard to the spatial specifications.

In the context of landscape and environment components, the measure "Development of network of I. class roads and expressways network outside the TEN-T" (expressways), represented by R7 expressway is situated:

- in corridor with slightly negative impact on Natura 2000 and TSES sites;
- in corridor with slightly negative (PPF, SPA) even zero impact on environment components.

In the context of landscape and environment components, the measure "Development of network of I. class roads and expressways network outside the TEN-T" (expressways), represented by R8 expressway is situated:

- in the corridor with slightly negative impact on Natura 2000 and TSES areas;
- in corridor with slightly negative (PPF) even zero impact on environment components.

The measure "Development of network of I. class roads and expressways network outside the TEN-T" (expressways), represented by R7 and R8 expressways obtained the sixth best complex evaluation of compliance with environmental objectives.

The main sense of the R7 expressway construction, in territory outside the Bratislava agglomeration, consists in establishing functional road axis in the south part of Slovakia. The most deficiency of existing road axis is its discontinuity in the straight direction between the important settlements Dunajská Streda and Nové Zámky. The road axis continuity is substituted by the road in interconnection Dunajská Streda – Komárno – Nové Zámky or through roads in interconnection Bratislava – Sládkovičovo – Nové Zámky. Actual status of the road route may be designated as insufficient also with regard to construction technical condition. The road route passes the south Slovakia territory from of Dunajská Streda - making up an external border of Bratislava agglomeration - to Lučenec; this territory may be characterised as demographically depression band with low development of urban centres, low population density, high unemployment rate and orientation to the

agriculture. The road route in the trace of future expressway may be divided, with regard to the predicted traffic volumes, into three different sections. In the territory of Bratislava agglomeration (up to Dunajská Streda city including its inside parts), the claims for 4 lane arrangement of a new communication are identified in current period. In section between Dunajská Streda and Nové Zámky – where the I. class road is missing in direct interconnection – the claims for 4 lane arrangement may be expected about 2040. In section between Nové Zámky and Lučenec, the growth of transport on the road substituting the expressway function, amounting to only 6 000 vehicles per 24 hours, is predicted by the year 2040.

Within the measure "Development of the I. class road network and expressway network outside the TEN-T" the ER recommends to implement a construction of R7 expressway in the section Dunajská Streda – Nové Zámky taking into account an optimal phasing of 4 lane configuration of the road.

Within the transport model of the Phase II of SPRDI SR 2020 it is necessary to re-review reasons for the construction of R7 expressway in section Nové Zámky – Lučenec, namely in relation to possible building modification of parameters of existing I/75 road and creating the bypasses of municipalities on the I/75 road. In abovementioned section predicted AADT values on the I/75 road will not achieve the orientation level adequate for the 4 lane configuration of the road neither till 2040. A construction of R7 expressway with 2 lanes in a new route parallel to previous I/75 road needs to be deemed as ineffective and creating unjustified landscape fragmentation.

Reasons for construction of a new road in corridor Nitra – Partizánske/Bánovce nad Bebravou do not consist in capacitive insufficient I/64 road but in a high share (38%) of the length of sections localised in residential areas of municipalities (from Výčapy – Opatovce municipality up to Ludanice – 14 km continuous passage through the municipality residential areas). Concurrently a high share of heavy freight transport over 10 (12%) (with regard to residential area circumstances) has been registered. Traffic-safety situation on the I/64 road is complicated by a high number of zebra crossings and junctions in municipalities, where collision situations with pedestrians and cyclists occurred. This leads to low average travel speed (61 km/h) on monitored section of the I/64 road Nitra – Partizánske/Bánovce nad Bebravou.

Transport connection provided for by the I/64 road now may be carried out also on the II/593 road Dražovce – Partizánske. In recent years this road begins to be used just for the possibility of fluent driving and the less number of municipalities on the route. A construction of the R8 expressway will affect both referred roads as it results from the analysis of transport development.

The construction of R8 expressway will have a positive impact on existing road network (I/64, II/593, II/579, II/592, III/50047) in particular on affected I/64 road sections in which the traffic volume will be considerably reduced (-54 %). This will have a positive impact on environment (decrease in noise and emissions) and on increasing the road traffic safety in a settlement territory<sup>39</sup>.

In the section of planned R8 expressway a predicted growth of the transport by 2035 is about 10 000 vehicle per 24h; this does not raise a requirement for implementation of 4 lane arrangement of the road. In the framework of implementation of the R8 expressway in section Nitra – junction with s R2 Brezolupy, the ER recommends to examine a justification of a new road construction in expressway parameters.

SPRDI SR 2020 includes measures aimed at reduction of the negative impact level of the road transport on environment and population. In the first category are classified the actions the objective of which shall be an operation of roads in new routes of relocations and bypasses of cities. The second activity group includes environmental monitoring and implementation of noise related measures.

### *Railway transport*

Railway transport infrastructure measures are aimed at activities the objective of which shall be to improve existing infrastructure to the level of qualitative parameters corresponding to the requirements of modern and competitive railways of EU States. Slovakia has to meet its obligations related to the programmes of railway transport upgrading stated in EU documents. Railway transport infrastructure measures are localised into corridors and lines of existing railways whereby the subject of activities

39 R8 expressway Nitra – interchange with R2, Plan, Dopravoprojekt Bratislava a.s., 2009

shall be an upgrading and electrification of lines and nodes. Activities the objective of which is the technological ensuring of interoperability represent only a minimal interference with the areas within the railway lands. From abovementioned it could be deduced, that the impact of railway transport measures on environment will be minimal or zero. The subject of evaluation is not only an operational infrastructure condition but also process of building interferences with the territory during the implementation of structures.

An upgrading of railway lines consists of rebuilding of railroad for the purpose of its equipment and ability to use the modern and progressive components and thus to improve its parameters. An upgrading solves also increasing in line speed up to 160 km/h. Upgraded corridor lines in Slovakia will satisfy requirements in accordance with AGC and AGTC Agreements. Upgrading of line sections and nodes in the corridor No. Va belongs to the green priority projects. Implementations of constructions within Bratislava node are classified as important projects.

Tab. 58 Summary evaluation of compliance of railway transport measures with ER environmental objectives

Measure	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Upgrading of TEN-T network	20.50	9.00	-5.00	-6.00	-8.00	-2.00	-3.00	-4.00	-6.00	-4.50
Electrification of major lines	2.00	6.00	-2.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	3.00
Technological ensuring of interoperability	3.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measures in total	25.50	15.00	-8.00	-6.00	-9.00	-2.00	-3.00	-5.00	-7.00	0.50

In the context of settlement the railway transport measures are situated:

- in routes of existing railway lines; this supports all up to now stabilised settlement links in the international, national, supraregional and agglomeration context;
- the same principle shall be applied to an evaluation of renewals and upgrading of railway nodes;
- measures for technological ensuring of interoperability have positive impact on operational capability and integration of Slovakia railway lines in the EU railway system; in the context of selected lines there is a contribution to settlement connecting of a Bratislava agglomeration to European cities;
- upgrading of lines outside TEN-T network interferes with residential developing links of core settlement areas.

In the context of landscape and environment components the railway transport measures are situated:

- in sectors with slightly negative and zero impacts on Natura 2000, National System of Protected Areas and TSES;
- in all sectors with slightly negative and zero impacts on environment components

With regard to the evaluation of compliance of railway transport measures with environmental objectives, an unambiguous positive effect of interferences with the railway transport may be stated; these consist in upgrading and electrification of railway lines, interoperability implementation and increasing in operation safety. An increase in railway network qualitative level contributes to the reduction of adverse transport impacts on environment.

The railway transport is on account of its nature deemed as environmentally acceptable. Within the reduction of environment burden, the measures aimed at decreasing the impact on environment and population may be developed through the implementation of anti-noise measures and elimination of ecological burdens.

#### Intermodal transport

A construction of public terminals for intermodal transport is proposed for the purpose of the development of intermodal transport services. So-called public terminals, which would be on a non-discriminatory and public basis provided the access to the terminal services for all customers, do not occurred in Slovakia. The measure is aimed at a completion of the building the prepared public terminals, completion of Phase II of such terminals and construction of a new terminal.

The implementation of measures results in enhancement of combined transport services in the territory of the Slovak Republic also by so-called continental combined transport and in the balance of

deformed combined transport market. Two planned terminals are parts of proposal for a core network and proposals of terminals are parts of the proposal for a comprehensive TEN-T network in Slovakia.

Tab. 59 Summary evaluation of compliance of intermodal transport measures with ER environmental objectives

Measure	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Intermodal Transport Terminals	9.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00

In the context of settlement the intermodal transport measures are situated:

- in the space of native transport-gravitation centres creating the nodes of residential development and transport axes at nationwide and international level.

In the context of landscape and environment components the intermodal transport measures are situated:

- in sectors with zero impact on Natura 2000, National System of Protected Areas and TSES.

With regard to the evaluation of compliance of intermodal transport measures with environmental objectives, an unambiguous positive effect may be stated; this will reflect in expected positive trend of modal split development as regard the freight transport; such trend will contribute to the reduction of adverse transport impacts on environment.

### Air transport

Measures as upgrading, construction and maintenance of airport belonging to the TEN-T network are based on the scope of needs of airport companies regardless whether it is a complex upgrading of airport infrastructure (RWY and adjacent areas) or construction of a new infrastructure for cargo transport or infrastructure measures related to the maintenance works.

The implementation of measures promotes the process of continuous generation of conditions allowing the air transport sector development. Measures should be implemented in three Slovakia airports classified in the proposal for TEN-T network and the airport M. R. Štefánika Bratislava is a part of the core network. A support of proposed measures from public funds will be subject-matter of EC assessment in accordance with the draft of EC for Guidelines on State aid to airports and airlines of 3 July 2013.

Tab. 60 Summary evaluation of compliance of air transport measures with ER environmental objectives

Territorial sector	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Upgrading, construction and maintenance of airport infrastructure within the TEN-T	7.50	-3.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

In the context of settlement the air transport measures are situated:

- in the space of two main core settlement areas, two native transport-gravitation centres creating the nodes of the main residential development and transport axes;
- in the space of one core settlement area of the second level and the area of the tourism of international importance, situated on the main residential development and transport axis;
- in the space with slightly negative impact on the health of population.

In the context of landscape and environment components the air transport measures are situated:

- in sectors with zero impact on Natura 2000, National System of Protected Areas and TSES.

An evaluation of compliance of intermodal transport measures with environmental objectives is based on the positive scoring assessment. High share of it may be assigned to the localisation of measures into the transport-gravitation centres generating in Slovakia, in the highest extent, the requirements for providing the air transport services. Specifically intended measures shall eliminate negative impacts of air transport operation on the population and environment. Their substance consists in application of instruments and implementation of necessary investments in airport infrastructures carrying the efficient elimination of risks associated with the environment protection, investments in decreasing

negative impacts on population as well as continuous monitoring of factors (noise, emissions, and quality of groundwaters).

### *Inland waterway transport*

With regard to the inland waterway infrastructure measures, an evaluation of compliance with environmental objectives relates to the measure aimed at provision of required parameters of the fairway of Danube waterway. Under the international classification of inland waterways, the Danube waterway of international importance should ensure some transport performance at least during 30 days in year according to UNECE and Danube Commission criteria. Required parameters of the fairway (fairway depth and width, radius of curvature, clearance height under bridges for respective classification class of the waterway) should be provided through implementation of technical measures. Particular technical measures have to be drafted on the basis of research from which an optimal solution of fairway individual parameters shall result.

Tab. 61 Summary evaluation of compliance of inland waterway transport measures with ER environmental objectives

Measure	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	protection - National System of Protected	Natura 2000	TSES	Total
Technical measures to ensure required parameters of fairway of Danube waterway	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

In the context of settlement the inland waterway transport measures are situated:

- in the space of the main core settlement area, the transport-gravitation centres creating the nodes of the main residential development and transport axes;

In the context of landscape and environment components the inland waterway transport measures are situated:

- in sectors with zero impact on Natura 2000, National System of Protected Areas and TSES.

With regard to the evaluation of compliance of inland waterway transport infrastructure measures with environmental objectives a favourable status may be stated. The reason for positive assessment is in particular the absence of risks for environment components resulting from the waterway construction and operation.

In addition to infrastructure measures also the inland waterway measures related to the environment and population will be registered (measures have been parts of the assessment of visions, objectives and priorities). A favourable effect is expected also in case of improvement of environmental compatibility of vessels through the reduction of gas pollutants and particles from vessel combustion and ancillary engines. Also the implementation of design modifications of waterway transport means, construction of LNG fuel stations in Slovakia public harbours, ensuring of collection and disposal of waste produced by vessel operation in public harbours may evoke the improvement of the current state.

### *Public passenger and non-motorised transport*

Measures of public passenger and non-motorised transport are activities satisfying the strategic and specific objectives. They are the basis for defining the projects through implementation of which the objectives will be met. The single measure may be implemented through more projects. The vision for public passenger and non-motorised transport organisation shall be a sustainable regional and urban mobility with higher share of public passenger and non-motorised transport in the modal split in comparison with current state. In fact, this vision may be defined as valid not only for organisational problem sphere of public passenger and non-motorised transport.

Any VOND measure may be sensed as a programme implying the mutually connected projects. From this feature the way of implemented environmental measure assessment may be derived. Strategically assessed measures do not include organisational projects assessable at a SEA level (with no territorial projection); their absence has been substituted by infrastructure projects of public passenger and non-motorised transport clarifying the organisational measures in the territorial context. Infrastructure projects of public passenger and non-motorised transport are with regard their scope



assessable at the EIA level but through their cumulative function they conform to the substance of organisational measures: establishment and building of integrated transport systems. The list of projects of infrastructure nature considered within the strategic assessment of organisational measures is set down in Annex 3.

Tab. 62 Summary evaluation of compliance of public passenger and non-motorised transport measures with ER environmental objectives

Measure	Transport - settlement	Health	Soil	Rock environment	Water	Natural healing waters	National System of Protected	Natura 2000	TSES	Total
Establishment of integrated transport systems, integration of public passenger transport in Western, Eastern, Central-Southern and Central-Northern functional regions	19.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.00
Measure (sectors in total)	19.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.00

In the context of settlement the public passenger and non-motorised transport measures are situated:

- in the space of core settlement areas of the top level;
- in the space of core settlement area of the second level and the area of the tourism of international importance;
- in the space of centres of polycentric settlement systems with expressive link to the suburban passenger transport.

In the context of landscape and environment components the public passenger and non-motorised transport measures are situated:

- in sectors with zero impact on Natura 2000, National System of Protected Areas and TSES.

With regard to the evaluation of compliance of public passenger and non-motorised transport infrastructure measures with environmental objectives a favourable status may be stated. The reason for positive assessment is in particular the absence of risks for environment components resulting from the public passenger and non-motorised transport establishment and operation. As well as a high positive potential of public passenger and non-motorised transport, in relation to the change of the trends in the modal split development in cities and residential agglomerations, is reflected in an assessment.

The substance of the public passenger and non-motorised transport measures shall be characterised by expressive environmental undertone. SRVOND SR 2020 does not include specifically oriented environmental measures.

#### *Impacts on Natura 2000 network areas*

Distribution of Natura 2000 network areas is a significantly limiting factor influencing the transport infrastructure development as well as other economic activities. Currently, there are 473 designated areas of European importance taking up 11.9% of the area of the Slovak Republic and 41 special protection areas taking up 26.2% of the area of the Slovak Republic.

The direct contact with Natura 2000 sites has been identified in 16 territorial sectors of the road transport and 7 territorial sectors of the railway transport. The potential conflict defined by corridor of 1 000 m has been identified in 16 territorial sectors of the road transport and 8 territorial sectors of the railway transport.

The harmonisation of priorities of the transport infrastructure development ensuring economic growth, decrease in unemployment and removal of disparities between regions aimed at the nature protection in most cases requires to find the compromise solutions. In the cases when there is no chance of preventing interferences with protected areas and when there are no alternative solutions, it is necessary to seek for acceptable mitigation measures or compensatory measures. The only feasible solution of conflicts with Natura 2000 network areas is a full harmonisation of investment preparation procedures and requirements of Articles 6(3) and 6(4) of the Habitats Directive. Measures have to be implemented at the level of specific projects based on results of EIA process and a follow up process of the building permission under the Building Act (territorial decision, building permission). In case of existing projects, it is necessary to assess the impacts on Natura 2000 network areas in the framework of feasibility studies.

## 9. SUMMARY CUMULATIVE EVALUATION

System measures will have the largest cumulative impact on Slovakia transport system development in the future. They will affect all transport modes in the process of the preparation and implementation of transport projects. The most of system measures shall be applied in the process of transport infrastructure modelling with a logical finishing in implementation of Phase II of transport sector strategy preparation. As a dominant instrument affording a higher quality level of pre-project and project preparation of transport constructions the more sophisticated and intensive usage of software and hardware means are profiled within the measures. Their application is presumed in the phase of information acquisition, modelling, project preparation and also in the process of transport control. However, an expected improvement of the preparation of transport constructions associated with the informatisation process shall be viewed in the real context. A human factor will play always determining role. Continuities and limits of the informatisation- including its use in the transportation-planning process - shall be defined comprehensively by the following citation of the scientist dealing with an artificial intelligence: *"No matter how the program in an effort to step out of itself flounders and wriggles, it is always governed only by the rules that it contains inside. You cannot escape yourself, as well as a person cannot decide not to obey the laws of physics. Physics is an irreversible system, from which there is no escape".*<sup>40</sup> It is apparent that the top technology itself does not provide reliable and qualitative results of transportation-planning process unless participated subjects will access to the matter with professional ethics. Reliable results of transportation-planning process are conditioned also by the use of real and exact data and their putting into process depends on the human factor.

According to verified relations and impacts of Moore's law<sup>41</sup>, the technological development will still more vehemently influence the transport sector in particular its components: a vehicle and road. In the countries standing on the top of technological development, the sectors near to the transportation planning are going into the challenge of more extensive usage of data provided by the application of smart mobile phones - smartphones. Phones with operating system offer a great amount of data a processing of which may affect in an impressive way the different areas of social life. *"Almost each device sends back to centralised servers, continual stream of localisation data ... Scientists and commercial researchers are discovering how to analyse millions of data that are sufficient to create a motion chart of millions of people ..."*<sup>42</sup> Also the data acquired from GPS devices placed directly in motor vehicles may be used in a similar way.

A protection of privacy of individuals aimed at an authorisation of data provided for commercial use will be still more important aspect of GPS data processing. New options of data processing is regulated by the Proposal for a Regulation of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data.<sup>43</sup> A great gain of processing of the data originating from smartphones is connected with their application in transportation-planning process. In a specific way these data may substitute data acquired now through the transportation and sociological inquiries. An application of GPS localisation data of smartphones can in future in a radical way positive influence the results of works in transportation planning process.

An effect of the use of new mobile technology products will be positively showed in the context of the National System of Traffic Information (hereinafter referred to as the "NSDI") and the starting project of the National Transport and Information Centre (hereinafter referred to as the "NDIC"). The objective of the NSDI shall be to establish a complex system environment for transport information and data collection, processing, sharing, publishing and distribution. In the NDIC, the existing as well as new systems of managers of communications and other organisations dealing with the relevant transport information will be integrated.

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40 Hofstadter Douglas. R, Gödel Escher Bach, existenciální gordická balada, ARGO/DOKOŘÁN, 2012

41 "The number of transistors incorporated in a chip will approximately double every 24 months, 1965"

42 MIMS CHRISTOPHER ,Vytěžování mobilního života, SCIENTIFIC AMERICAN; 2013

43 General Data Protection Regulation, COM(2012) 11 final

In a specific way these data may substitute data acquired now through the transportation and sociological inquiries. An accent laid on the public passenger transport preference include the goal consists in the stopping the growth of the individual car transport share in the modal split, with projection into the improvement of environment quality in the cities and in the return to the human aspect in their urban structure. SRVOND SR 2020 measures have ambition to achieve such condition. A preparedness of cities to establish and operate the IDS is different. Bratislava and Košice having the best preconditions for functional operation of the IDS may be designed as cities with the highest stage of preparedness. Public passenger transport in Žilina now shows primary signs of the IDS (integration of the carriage of persons on railway line Žilina – Rajec), but without full area interconnected functional operation of other transport modes it cannot be spoken about the IDS. So far in the most selected cities in SRVOND SR 2020 are not performed respective pre-project and project steps verifying the justification of the IDS implementation in cities.

The assessed Slovak transport system includes international and European dimension. Mutual functional interconnection of particular transport systems shall be a key for achieving the objectives of an environmentally favourable operation and sustainable mobility of the transport system. There is necessary to accentuate a high grade of dependence of sustainable mobility on determining distribution of transport resources and destinations in the territory. Without applying of principles of environmentally acceptable localisation of resources and destinations generating the transport in territory – representing the observance of spatial specifications of environment components – the measures aimed only on the functionality and sustainability of the transport system will be inefficient. This significant localisation aspect reflects in the basic zoning of Slovakia (the possible lowest number of natural catchment Slovakia regions stated in the binding part of KURS 2001 and KURS 2011) which has to be followed as initial basis of the State transport system.

At the nationwide and international level, a complexity of the Slovakia transport system is represented by its multimodality. In principle it may by state a mutual spatial compliance of two core transport modes - the road and railway transport - localised in the main residential development and transport corridors and oriented in the west-east and north-south directions. Air transport infrastructure enhances a multimodal range on territory of the most important Slovakia settlement agglomerations. A location of inland waterway transport infrastructure is primary defined by natural conditions; it accentuates a multimodal importance of agglomeration of Bratislava capital city. In the field of freight transport, an intended development of intermodal transport infrastructure establishes a synchronising element of Slovakia transport system with potentially significant environmental impact. A localisation of the main public terminal of intermodal transport in transport-gravitation centres copies the basic catchment zoning of Slovakia.

Essentially, the started process of SPRDI SR 2020 elaboration - divided into two phases with developing the verification transport model by 2016 - may be assessed positively. Current stage SD stage provides the framework for implementations of projects which are incontestable at the level of current exact knowledge. These projects represent a medium term project plan; their implementation should not be replaced by the projects requiring a verification through the transport model (with red colour indicated projects in the pipeline). An objective of the Phase II of SPRDI SR 2020 shall be to establish a long term programme of transport development till 2030 drafted on the exact basis with the coupling to all relevant transportation planning inputs and with unambiguous application of environmental aspects. The transport model will represent an instrument necessary for binding transport modes into the complex transport system. The incorporation of Phase II outputs of SPRDI SR 2030 into updating of the highest land-use planning document "KURS" being approved by the regulation of the Government of the Slovak Republic or by the Act in the National Council – after successful passing the SEA process of the assessment of impacts on environment - would contribute to the stability of processed long term plan of the transport infrastructure development. The maintenance of agreed long-term continuity of the transport system development is not only a socially important process but it include also intensive environmental aspect.

The evaluation results in positives in cumulative effect of projects in the field of providing the transport services including the access to them, improvement of access to basic services (in case the basic services will be localised in compliance with the basic zoning of Slovakia), promotion of the social inclusion, options for relaxation and tourism development. Generally, through the diverting the road transport outside the residential centres with more tolerant distribution of the noise and emissions burden within territory, a favourable impact on the health of population is also expected.

With regard to the economic development of regions it is necessary to accentuate in relation, that it shall be a multidimensional phenomenon. In order to achieve that large investments into the building and upgrading of railways would be economic acquisition for affected and adjacent regions, an existence of the critical amount of activities with higher added value shall be necessary. Also the production of know-how and goods applied in economic transactions at the international level<sup>44</sup> shall be necessary. Capacitive transport connecting of regions without promotion of abovementioned factors shall be insufficient instrument for the economic development achievement. Referring to the statistic data of Slovakia economic sector it may be stated, that except for the economically successful Slovakia south-west region with the Bratislava capital city, also the west part of Slovakia north-west region with the Žilina/Martin centre and the spaces of the core of polycentric settlement systems of the Eastern (Košice/Prešov) and Central (Banská Bystrica/Zvolen) Slovakia, stand on the threshold of the stage, when it appears to be rational to expend investments on the transport infrastructure construction. If these investments will be expended on the transport infrastructure construction of a nationwide importance, interconnecting the abovementioned centres, then a high presumption exists for mutual positive effect of economic centres and effect of centres applied inside the polycentric systems. In this context it shall be necessary - after unloading the communications in residential areas of cities and municipalities - to implement measures of SRVOND SR 2020 aimed at the strengthening the position of ecologically more acceptable urban transport modes

The environmental quality in sectoral and regional summary is in the ER presented through the results of summary cumulative evaluation of outputs from assessed SDs, stated in the following paragraphs.

The environmental worthiness is determined by geographical conditions, manner of life, economic and social opportunities and needs, application and observance of rational land use planning as one of the basic instruments of the environmental policy in favour of all community.<sup>45</sup> The assessment of environmental worthiness of the transport infrastructure localisation has been based in the ER on a projection of environmental issue into the proposal for territory structure in binding land use planning documentation of the Slovak Republic – KURS 2001 and 2011<sup>46</sup>. The use of know-how and outputs from the document processed by the LANDEP methodology at a nationwide level adequate to the SD was not possible with regard to the its absence.

In the space of the South-western Slovakia and Bratislava a heavy pressure on the transport infrastructure development of all hierarchy levels is registered. Measures referred to in assessed SDs reflect this status through the proposals for projects intended for implementation of all transport modes. The issue of TI localisation and qualitative level is on the one hand closely determined allocation of settlements and the functions thereof in territory. On the other hand it is a question of limiting the placement of transport system with the rarest natural elements/sources occurring in the region: agricultural land of the top quality, sources of the drinking water and protected rare natural areas. The territory outside the settlement may be designated as a cultural landscape requiring the protection, management and planning.<sup>47</sup>

A significant aspect influencing the trends of settlement development of all space shall be the method of the capital city urbanisation. Bratislava and its background make up the single Slovakia region, in which in the great extent the suburbanisation processes are ongoing (in Slovakia conditions) and important changes induce in the spatial organisation of suburban landscape are induced. "A city expansion into the suburban landscape induces a whole complex of changes. *The suburban growth in Bratislava surroundings causes the significant social, transport and environmental impacts and constitutes a main challenge for the landscape management in the next decades. In monitored period 1990 - 2006, the greatest changes on borders of compact city and along transport corridors occurred. In consequences of suburban processes the landscape changeover occurs; this is characterised by*

44 BLAŽEK JIŘÍ, UHLÍŘ DAVID, Teorie regionálního rozvoje, nástin, kritika, implikace, KAROLINUM Praha, 2011

45 KLINDA JOZEF, Historické základy environmentalizmu a environmentálneho práva, ENVIROMAGAZÍN 6/2012

46 5. Regulator: In the field of territory configuration from the perspective of ecological aspects, protection of nature, natural sources and mineral wealth and the landscape care and shaping the landscape structure: 5.1. To ensure through the land use planning instruments an optimal use of territory respecting and enhancing the territorial system of ecological stability, biota landscape integrity and biodiversity at the national, regional and local level..

47 European Landscape Convention, Florence 20 October 2000, Council of Europe, European Treaty Series – No.176

*the growth of built-up areas, decrease in agricultural areas and increased landscape fragmentation. This may be demonstrated by changes of the structure of landscape covering registered in the database of CORINE Land Cover project<sup>48</sup>.*

The trend of capital urbanisation development determines the distributions of transport resources and destinations and thus it defines conditions for localisation and configuration of the transport infrastructure in the city, in its agglomeration and in the Slovakia south-west region. Along with it the capacitive supply of transport infrastructure in territory reversible influences the suburbanisation development. In Bratislava agglomeration such development is concentrated in Senec developing route and the increase in its intensity is expected in the future. The D1 motorway, its extension to 6 lane arrangement with collectors on both sides, prepared parallel R1 expressway with 4 lane and existing parallel I/61 road with considered 4 lane arrangement create from territorial 10 km wide corridor the space intended for intensive urbanisation within the 50 km from Bratislava. This is territory with the most qualitative agricultural soils, extending to the large-scaled CHVO of drinking water and rare natural areas.

Suburbanisation effects in the Bratislava background and the options relating to the use of free areas in the city cadastre territory for urbanisation are in mutual contrast. A number of city inhabitants with regard to the territory area is in comparison with similar European metropolises – e.g. Prague – relatively low. There is the option to use the spatial potential of the capital for placement new areas intended for urbanisation, naturally on condition to maintain environmental limits valid for urbanised spaces of the city. A contribution of such development shall be the decrease of transport and energetic requirements for operation of new urbanised spaces, protection of cultural landscape in catchment territory against the intensive urbanisation negative impacts.

In some degree of simplification it may be expected, that suburbanisation process in Bratislava agglomeration results in increasing the pressure on implementation or capacity expansion of radial, to the centre in Bratislava, orientated roads of the catchment region. Their impact on environment coupled with the growth of transport performances may be designated as negative.

If the growth of urbanisation, consisting mainly of implementation of residential zones and related services, occurs within the borders of the cadastre territory of Bratislava, then the reduction of transport performance volumes necessary to ensure transport services for new urbanised areas of a city may be expected. The growth of opportunities to carry out the transport services for new urbanised areas of a city through the public passenger transport represents a serious factor.

Settlement relations in the transport, regional and environmental context of Považie, Pohronie and south part of Banská Bystrica region, are in some Slovakia regions perceived in a considerably different way. While the Považie regions – Žilina and Trenčín regions – and the cities perceive their position within the space of north-west Slovakia, in Banská Bystrica region a regional configuration approaching to the previous Central Slovakia region from the ČSSR period is preferred. The growth of opportunities to carry out the transport services for new urbanised areas of a city through the public passenger transport represents a serious factor. In SPRDI SR 2020, the priorities of the road network arrangement are declared through the proposal for road transport infrastructure measures. The road network components and components of the settlement structure established in the Project of urbanisation of the Slovak Socialist Republic are incorporated, through the road infrastructure measures, into abovementioned territory polycentric structured in the meaning of KURS 2001 and 2011 along with their justification.

According to PU SSR<sup>49</sup>:

- Main urbanisation axes include „Central urbanisation axis of Slovakia in the route Budapest – Šahy – Zvolen – Banská Bystrica – Ružomberok – Dolný Kubín – Krakow“ (in SPRDI SR 2020 the measure Central Slovakia north-south axis, route R3-R1-R3);
- „3 metropolitan regions: Bratislava, Košice, Pohronie (in SPRDI SR 2020 Conurbation Banská Bystrica – Zvolen)“ will be developed in Slovakia.

48 ŠVEDA MARTIN, Suburbanizácia v zázemí Bratislavy z hľadiska analýzy zmien krajinej pokrývky, Prírodovedecká fakulta UK Bratislava, GEOGRAFICKÝ ČASOPIS, 63 (2011)

49 Project of urbanisation of the Slovak Socialist Republic, approved by the Government of SSR, Resolution No. 284/1976.



KURS 2011 in its binding part defines - in affected space - to develop core settlement areas and residences along the joins of Katowice and Budapest agglomerations. The joins in the field of road infrastructure shall be the D1 and D3 motorways and R3 expressway; Žilina/Martin and Banská Bystrica/Zvolen are deemed as the core settlement areas.

PU SSR thinks over the one or two centres in Slovakia central part at a metropolitan level. A reality was and is different, any of two considered centres cannot achieve the level adequate to Bratislava and Košice metropolitan centres. *"Project of urbanisation of the Slovak Socialist Republic incorrectly considered all three region centres as equivalent metropolitan centres and this is reflected up to now in uncritical ambitions and overestimating of the position of Banská Bystrica city in works of the architects. In our opinion Banská Bystrica city is a centre of order III (see KURS 2011) and its position is not comparable with Bratislava and Košice"*<sup>50</sup>. Policy and institutional promotion to Pohronské regional centre has been reflected in the growth of number of inhabitants of Banská Bystrica city in the period 1950 to 1991 through highest value of growth coefficient 6,25 of all cities in Slovakia (see table 2).

For clarification of PU SSR starting points it is important to explain its ideological and conceptual reasons:

- *"In the urbanisation process the basic social requirements of the socialism are realised namely the social equality, elimination of differences between the village and city, solving the housing question and establishing conditions for all-round development of personality and socialist manner of life";*
- With regard to the needed overall synergy of regulated development and territorial distribution of regions in Central Slovakia region, in relation to the core of metropolitan Pohronský region Banská Bystrica – Zvolen, it is unreal to suppose the option of concurrently equally intensive rate of urbanisation development of two equally categorised metropolitan regions (Severné Považie with centre Žilina and Pohronie with centre Banská Bystrica – Zvolen), as the Banská Bystrica with its significance in addition has a function of the one of three regional cities in Slovakia.<sup>51</sup>

On 11 July 1960 The Constitution of Czechoslovak Socialist Republic has been adopted; it include also the changes of territorial arrangement of the State. In affected territory the one regional unit the justification of which is given by the Act No 36/1960 Coll. of 9 April 1960 on territorial division of the State. By 1 July 1960 the three regions in Slovakia have been established (within them the Central Slovakia region with major regional city Banská Bystrica). Ideological and conceptual reasons of the Act on territorial division of the State reflected into the PU SSR – and also the transport infrastructure components – essentially are different from the principles of polycentric settlement development applied in spatial and regional planning of EU countries. Method and impact of the urbanisation according to PU SSR is also in cardinal contradiction with European Convention on landscape (e.g. care of cultural landscape in Convention is in the contrast with elimination of differences between the village and city in PU SSR). The PU SSR does not include the priority application of nature protection principles as well as current scientific knowledge and methodology of Natura 2000.

*"The regional structure reflects an internal development of forces shaping particular regions, or so called primary (native) regional potential independent on human and potential secondary, technical and created by the human - society. For this reason a deformation impact of some period is easily identifiable in dynamic (historical ) analysing of regions"*<sup>52</sup>. In the meaning of justification stated in Chapter III.1.1: Transport aspects in relation to settled territory it is apparent, that the arrangement of Slovakia in basic zoning is irreversible and Banská Bystrica city cannot be the single common regional catchment centre for Považie and Pohronie territory (limitation of natural catchment territory by the mountain massif, restraining the creation of a required level of residential links). The transport

50 OLIVER BAŠOVSKÝ, Súčasný stav a prognóza urbánnej a regionálnej štruktúry Slovenska a ekonomická transformácia (Current status and prognosis of urban and regional structure of Slovakia and economical transformation), SBORNÍK ČGS, 1995

51 MICHALEC IVAN, Metóda, technika a nástroje územného plánovania v podmienkach nášho socialistického zriadenia (Method, technics and instruments of land use planning in conditions of our socialist regime), CSc., VEDA – vydavateľstvo Slovenskej akadémie vied, 1976

52 OLIVER BAŠOVSKÝ, Súčasný stav a prognóza urbánnej a regionálnej štruktúry Slovenska a ekonomická transformácia (Current status and prognosis of urban and regional structure of Slovakia and economical transformation), SBORNÍK ČGS, 1995

accessibility of artificially established region centre ensured by constructions and transport infrastructure operation possess significant potential to interfere with environmental carrying capacity of native and unsettled landscape. Therefore the transport infrastructure of mentioned territory cannot be established in localisation according to PU SSR elements but it has to take into account natural Slovakia zoning legislatively approved in KURS 2001 a 2011.

Complex aspects mentioned above have a direct relation to the prepared reform of the public administration "Effective, Reliable and Open public administration - ESO"<sup>53</sup>. The infrastructure within SPRDI SR 2020 is primarily concerning the public administration at the regional level, the infrastructure within SRVOND SR 2020 and Strategic Plan for Development and Maintenance of II. and III. class roads is closely related to the agglomeration and local aspects of public administration of a district dimension.

In this issue a certain ambiguity and patulouness of optimal road infrastructure arrangement and its environmental worthiness in the middle of Slovakia territory may be stated. This condition reflects in all transportation-planning process, including lagging of the preparation and implementation of the road constructions. From the angle of view of environment protection against the transport operation negative impacts, in particular ecologically less favourable road transport in the context of the transit across the protected areas, the resolution of this issue represents the most important step in the next planning period.

The spaces of the southern part of the Banská Bystrica region and Eastern Slovakia – except for Košice agglomeration – are evaluated as underdeveloped regions. Reasons for such status are conditioned by many factors among them may be included also the low quality level of furnishing with basic information, technical and transport infrastructure and the low quality of connecting the regions to so called major transport infrastructure and to main cities of the State. The subject matter of SPRDI SR 2020 solution is infrastructure of international and national level, to which the underdeveloped regions should be connected; concurrently it should ensure connecting to main development centres of the State and the region. Measures and projects of assessed SDs include activities aimed at affected underdeveloped regions. In case of road infrastructure the east sections of D1 motorway and R2, R3 and R4 expressways belong among them. From the projects and measures of railway transport an upgrading the railway line No. 180 in Spiš and between Kysak and Košice and electrification of railway lines Zvolen – Košice and Bánovce nad Ondavou – Humenné in Zemplín need to be mentioned. From the perspective of environmental assessment no negative impacts on Natura 2000 sites and other components of the landscape and natural sources have been identified. Certain doubts concerning the environmental worthiness exist in relation to localisation of the R4 expressway route in the part of section between Svidník and Prešov, where diverting the proposed route outside natural residential corridor into the area of substantially native character is made.

A problem of D1 environmental feasibility in the underdeveloped territory consists in definition of optimal road network qualitative level. This is a typical problem of underdeveloped regions the characteristics feature of which is a low population density and scattered settlement. Demographic prognoses, also with considering the hypothetic contribution of improved transport accessibility followed by the economic growth, do not assume massive influx of new inhabitants in the region, reflecting in prognoses of lower AADT values of a new road network. In the most cases of rural sections of planned expressways in these regions, the predicted AADT values by 2040 do not provide the reasons for the 4 lane arrangement of roads. A verification of replacement of constructions of expressways for reconstructions of original roads in their current route with bypasses of municipalities needs to be carried out as an alternative way of the solution of this problem.

An implementation of the new two lane expressways parallel to original two lane roads represents environmentally and economically unjustified method for improvement of the transport accessibility of region through the road network. Capacitively oversized road network does not guarantee an economic growth of the region and increasing of its regional competitiveness. A landscape fragmentation and strengthening of the barrier effect in territory may be designated as the most significant environmental negative impact of such procedure.

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53 Act No. 180 of 19 June 2013 on Organisation of local state administration and amendment of some Acts

The operation of electrified railway lines constituting the skeleton of affected territory will be an environmental contribution for the underdeveloped Slovakia regions. However it is necessary to express a doubt, whether a line electrification will be sufficient for increase in territory attraction, if on the lines a higher line speed, conditioning the abbreviation of travel times and increase in railway transport attraction, will not to be provided,

In relation to the core settlement area Košice/Prešov and entire Eastern Slovakia region, the following question is raised: how to use its position potential and - currently not yet satisfied - ambitions to be the centre of cross-border Karpaty region (see the binding part of KURS 2001 and 2011). In transport continuities it needs to be stated, that only a single activity endangers the development aimed at mentioned vision. This activity is beyond the framework of SD measures assessment but is demonstrated in their cumulative evaluation.

A project for extension of wide track gauge line to Vienna is an activity affecting the Slovakia transport system. On the wide track gauge line and at the end of it in Vienna, a freight transshipment terminal for intermodal transport of EU countries will be built. Advised goods transshipment, from mobile means of wide track gauge line to river waterway transport, is from the establishment logistic chains point of view unrealistic. If the main sense of existence of wide track gauge line to Vienna consists in the time savings gained by the railway transport from the countries of Eastern Asia in comparison with slower maritime transport, then the goods transshipment from faster railway transport in Vienna to the river waterway transport annuls positive time gain of the railway transport. The transport process efficiency, logistic and EU legal acts relating to the combined transport prefer the use of goods transshipment from wide track gauge line to the mobile means of combined transport. Similar opportunities are offered also by the renewal of existing wide track gauge line to Košice, with an implementation of transshipment terminal, the establishment of goods centre and areas for associated service and commercial activities. Areas of large-scaled agglomerations are the suitable space for implementation abovementioned activities as a wider multiplication effect may be developed within their areas. In this context, the Košice agglomeration represents an optimal space in the territory of Slovakia.

Through implementation of the wide gauge line across the Slovakia territory, a justification of prepared upgrading as well as prepared reconstruction of railway lines to the standards of combined transport and prepared construction of terminals for intermodal transport in Slovakia, are contested. Whole concept of transport system of the freight transport in Slovakia (apparently also in Hungary) will be substantially interfered with the project for wide track gauge line to Vienna. From the transport system synergy point of view, a completely new model of Slovakia transport system operation, adapted to new conditions, needs to be established.

The transport system possesses the features of deterministic systems. Development trends influence anthropogenic activities concentrated in the landscape settlement. Landscape environment limits backward environmentally the settlement and thus also transport process. Settled territories of the north and central Slovakia (Považie, Pohronie, Spiš, Gemer) are concentrated mainly in middle and higher laid, environmentally unstable structural basins where barriers for their use exist. Economic potential of some there situated cities creates an assumption of the growth achieving 120 000 to 150 000 inhabitants. Expected demographic development of Slovakia is characterised by assumed natural population growth just in north and east parts of territory. A pressure to growth of cities will stipulate the territory motorisation rate; thus unwanted scenario of modal split development will be formed. The location and environmentally acceptable operation the basic communication systems, high energetic requirements for housing represent significant problems of cities situated in structural basins. For all mountain territory of the north and central Slovakia, the key factor for its environmentally acceptable development will be an establishment of viable alternative to individual car transport, i.e. the modern environmentally tolerable public passenger transport.

The context of environmentally tolerable public passenger transport may be applied not only to ecological unstable spaces of the mountainous Slovakia territory. With regard to the settlement density in Bratislava and Košice agglomerations and their regional backgrounds, the priority of public passenger transport shall be equally significant.

Environmental safety is, within the transport infrastructure, connected with the safety of constructions, the safety of their operation and no-failure operation and quality of transport means and devices, the degree of the environment protection against the vibrations, noise and emissions. This is a condition in which the transport system – as a part of anthropologic activities – affects the ecological system in a sustainable way. Risks and threats connected with the environment are minimised within this

condition. Generally, the road automobile transport is assessed, in comparison with transport modes, as the least safety transport mode. Within SPRDI SR 2020 the system, infrastructure, operational and organisational measures are planned as well as measures related to the operation safety and to the impacts on environment and population. Infrastructure measures bring into the landscape a new element i.e. building the transport infrastructure intended for operation. The objective thereof is to ensure planned transport/traffic function in the territory. The objective of other measures shall be to bring sophisticated, effective, economic and environmentally acceptable operation of infrastructure projects. Environmental safety is a subject matter of the interest of measures related to the railway, road, air and inland waterway transport impacts on environment and population. Monitoring and assessing of projects prepared within the measures related to the impacts on environment pertains to the rate and level of EIA process. From the perspective of complex SEA assessment of SDs, the incorporation of measures related to impacts on environment may be designated as high positive.

Under so called deep ecology<sup>54</sup> a bio-region may be deemed as natural way of community arrangement, an optimal specified place for raising an ecological sense and applying the principles of ecological aesthetics. In the human history, the bio-regions influenced an establishment and development of cultures. The basic elements of bio-regions shall be the accent on the importance of natural systems, self-regulation through the local communities coupled by the common care of bio-region and last but not least it is a question of its internal contents, sense or spirit of territory. Local communities deal in their activities with bio-regions of different localisation and character. bio-region localisation is not limited only to natural or cultural landscape. A of interfere also with territories of small and large cities. Self-regulating element of local community activities, in connection with enforcement of natural system importance has from the long-term point of view, a cardinal significance for the ecological environment shaping, the gradual vitalisation of ecological aesthetics in urban environment and its strengthening in natural landscape.

The other way of bringing the ecological aesthetics into a daily life is the process of landscape-ecological planning - LANDEP. Landscape-ecological plans provide, as a part of land-use planning process, the stimulus for more aesthetic incorporation of new elements of the transport infrastructure into the landscape and its scenery. Within the D1 project process, the opportunities for more aesthetic substantiation of construction objects, in particular the ground shaping.

The building of the SR transport system will be demonstrated by positive effect on the relaxation and tourism sectors. Motorways, expressways and upgraded railways will improve, through the connected road infrastructure, parameters of the time accessibility of the most important tourism centres and areas. Investments into the airport infrastructure in Bratislava, Košice and Poprad-Tatry airport will become a part of the synergy of positive effect on the tourism.

With regard to the synergy of activities included in SD, a turn to the positive development orientation may be observed. When the outputs from Phase II of SPRDI SR 2020 will be taken into account in abovementioned problem domains, an opportunity for mutual positive effect of the SR transport system as regard the sustainable mobility, economic growth and job creation will be available. A synergic effect of positives of the railway and public passenger transport sectors to a certain extent compensates the negatives which the road transport development affords. A verification of qualitative claims for dimensioning of the road network (justification for the construction of some expressways, phasing of their wide configuration, considering the replacement of constructions of expressway sections for reconstruction of original roads in their current route with the bypasses of municipalities, shall be a condition for effective synergy. A significant synergy will occur in urban agglomerations as a consequence of engagement of suburban and urban mass transport in a single integrated transport system.

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54 DEVALL BILL, SESSIONS GEORGE, Deep ecology, ABIES, 1997;

## V. MEASURES PROPOSED TO PREVENT, ELIMINATE, MINIMISE AND COMPENSATE IMPACTS ON ENVIRONMENT AND HEALTH

With regard to analysis of development of particular transport modes, there is a negative trend of increase in road and in particular the freight and passenger automobile transport, while railway and suburban bus and urban mass transport decreased or as in better case stagnated. Based on the indicator report of Transport sector<sup>55</sup>, the number of persons transported in public road transport decreased within the 2000 - 2011 period by more than 44%. Massive development of individual automobile transport on the account of mass passenger transport creates a great environmental burden especially in the centres of settlement with a significant concentration of inhabitants and production activities. Based on these trends as well as untenable transport situation in main urban agglomerations, it is recommended to strengthen the development of public passenger and non-motorised transport through increasing the allocations to this sector. This recommendation results also from an obligation of Member States initiated by Europe 2020 strategy for decrease in greenhouse gas emissions till 2020 by 20%.

Transport demands of the society common life as well as the economic sector signalize the options and potential in reduction of transport adverse impacts on environment. Decrease in transport demand is narrowly connected with the deployment of service facilities in intrinsic core settlement areas through which the elimination of redundant transport relationships at a minimum level may be achieved.

For the purpose of the preparation and implementation of transport infrastructure projects the following measures are proposed:

- To consistently observe the nodal - catchment arrangement of regions and core settlement areas with adequate deployment of service facilities as the principle on which the sustainable mobility is dependent;
- To prefer the aspects of nature protection in border areas of catchment regions within the zoning of the Slovak Republic territory conforming with the localisation of environmental sensitive areas in (Natura 2000, the National System of Protected Areas);
- To apply the principle of subsidiarity respecting the hierarchy and accessibility of core settlement areas;
- To implement measures to eliminate the risks caused by the lack of stability of rock environment when implementing the constructions;
- To take into account the requirements of Water Framework Directive, plans of management of sub-basins and Water Act when planning and implementing the projects of transport infrastructure;
- To respect conditions of water protection defined in provided water management protection areas, protection zones of water sources and protection zones of natural healing sources and sources of mineral waters when proposing transport infrastructure;
- To implement technical measures slowing down the water run-off from river basin to water courses in the built-up areas of road infrastructure;
- To proceed in accordance with the Act No. 220/2004 Coll. on protection and use of agricultural land and on amendment of Act No. 245/2003 Coll. on Integrated Pollution Prevention and Control and on amendments of some acts, as amended by later regulations as well as with the Act No. 326/2005 Coll. on forests, as amended by later regulations, when taking the land.
- To ensure the process of assessment under the Articles 6(3) and 6(4) of the Habitats Directive for constructions potentially affecting Natura 2000 sites in case when such process has not been carried out;

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<sup>55</sup> Doprava a jej vplyv na životné prostredie v Slovenskej republike k roku 2011, Indikátorová sektorová správa. SAŽP, 2013 (Transport and its impact on environment in the Slovak Republic by 2011. Indicator report. SAŽP, 2013).



- To implement within the projects in particular the following measures intended to protect the nature and landscape and to minimize interventions to ambient environment and to increase connectivity of habitats:
  - Within defined corridors to look for the optimal route with regard to appearance of valuable habitats and protected species of fauna and flora;
  - To ensure the migration permeability of constructions for all groups of fauna based on identified migration routes in the protected areas and wild landscape. It does not concern only large mammals but also other groups especially amphibians. To add to build underpasses the navigation fence. To fence the routes in the points of contact with forest complexes with higher probability of migration;
  - Measures to increase the migration permeability have to be taken not only in case of new constructions but also the existing constructions, in particular in the points where routes cross the bio-corridors;
  - To fence the routes in the points of contact with forest complexes with higher probability of migration;
  - To solve the bridging of hydric bio-corridors so that from technical and ethological point of view they be permeable for animals migrating along the water courses (in particular the European otter) and at the same time serve for animals as underpasses;
  - To equip the transparent noise walls with measures against collisions with birds;
  - To minimise interferences with water courses, greenery, riparian vegetation, etc. also outside the protected areas;
  - To solve the greening of the transport constructions with regard to living conditions of animals; to prevent adjustments allowing species of fauna to settle down dangerously close to transport roads; to construct the spare habitats in secure distance;
  - To monitor invasive plants along the routes and when discovered to secure their systematic elimination.
- To respect character of landscape, not to disrupt its integrity, to take into account specifics of regions through selection of adequate materials and to decrease the visual exposition of constructions and promote their inclusion into the landscape through appropriate plantations when projecting the transport infrastructure constructions;
- To ensure the protection of cultural heritage in accordance with the Act No. 49/2002 Coll. on protection of monument fund, as amended by later regulations;
- To ensure the protection of mineral wealth in accordance with the Act No. 44/1988 Coll. on protection and use of mineral wealth, as amended by later regulations;
- To solve the issue of old burdens when implementing the upgrading projects of railway lines;
- To reduce the requirements of raw material sources by means of recycling and effective use of excavated materials (material from track bed, excavation, tunnelling, etc.);
- To ensure in advance an assessment by the EIA process in case of opening of new deposits;
- To apply the EIA process in advance also for constructions facilities such as - concrete and asphalt plants;
- To take into account the need to adapt to climate change when planning the transport infrastructure;
- To ensure the environmental management during the project preparation and implementation.

## **VI. REASONS FOR THE SELECTION OF CONSIDERED ALTERNATIVES AND DESCRIPTION OF THE WAY THE ASSESSMENT WAS PERFORMED, INCLUDING DIFFICULTIES WITH PROVISION OF REQUIRED INFORMATION, E.G. TECHNICAL DEFICIENCIES OR UNCERTAINTIES**

A proposal of SPRDI SR 2020 is submitted invariantly, its strategy draws on the sector analysis, projections of the sector development, identified key disparities and potential development factors. Visions, objectives and priorities correspond to the needs identified in analysis and they are oriented in accordance with the strategy of ex-ante conditionalities to support factors of development in the transport area.

Measures specified in SPRDI SR 2020 will be implemented through particular projects. Based on the assessment of problems and needs of individual transport sub-sectors the projects have been identified and they constitute an implementation instrument of the sector strategy. Through their implementation the visions, strategic objectives and measures of the transport sector will be satisfied in successive steps.

With regard to projects included in SPRDI SR 2020, most of them have already passed through the EIA process, in which they have been subject to a detailed variant assessment. Also the projects that have not been assessed yet in the EIA process will be dealt with in a similar way.

Within the Phase I of the transport sector strategy preparation a comprehensive list of potential projects has been compiled; these have been further analysed from the perspective of their preparedness, necessary investment costs, schedule, economic effectiveness, etc. With regard to unavailability of some data and information necessary for such assessment, certain simplifications or approach rationalisations had to be applied.

Set-up simplified methodical procedure has been aimed at the identification of projects which may be considered, based on the wider professional consensus, as relevant and justified. An important parameter enabling the classification of the project in this category (so called green projects) has been the degree of preparedness allowing the implementation of particular project within the period of 2014-2020 (2023). The methodology has been set-up towards the identification of apparent, not disputed projects implementable during this period. Other projects have to be further processed in detail so as their relevance in the context with their possible implementation may be demonstrated. Within the SPRDI SR 2020 the projects are divided as follows:

- project plan for programming period 2014 - 2020 (2023 if appropriate) includes green projects of SPRDI SR 2020 (projects that may be implemented within this period);
- project pipeline for the programming period 2014 - 2020 (or 2023) includes all projects – green, yellow, red – that are part of SPRDI SR 2020.

Projects classified in categories green, yellow and red are the part of defined measures of SPRDI SR 2020 and they are subject to the strategic environmental assessment. For this reason the strategic environmental assessment could not be aimed only at the green projects (indisputable projects) included into the project plan of SPRDI SR 2020. All projects classified in the project pipeline have been subject to the SEA.

With regard to the fact that some measures include, except for the non-prepared red projects, also the environmentally controversial projects it is necessary to consider the implementability of certain measures, in particular in the road transport, as substantially limited. In these cases some steps will have to be carried out to take the measures so as they would be implementable, namely either through the adoption of proper modification of transport construction projects or by looking for other alternative solutions of strategic character within the Phase II of SPRDI SR 2020. This issue is specified in detail in Chapters IV.6 and IV.8.

Likewise also the proposal of SRVOND SR 2020 is submitted invariantly. Different options of applying the strategic environmental assessment concerning the measures of the public passenger and non-motorised transport are defined by the transport mode character, the statement and structure of measures. Within the SRVOND SR 2020 the measures are represented by programmes implying the interconnected projects. From the strategic environmental assessment point of view, there are concrete measures for establishment and building of integrated transport systems in cities and regions whereby such measures have an organisational character. However as a programme that has to be implemented, those measures include many partial projects referred to in as the part of other measures. Partial projects are evaluable at the EIA assessment level but their integration into territorially localised IDS system predetermines them as a subject assessable at the SEA strategic assessment.

Projects within the SRVOND SR 2020 have been pre-assessed from the priority importance point of view. This assessment does not include an assessment of local plan documents supporting the project and a preparedness of the project for implementation but it indicates only project conformity with strategic plan of the public transport and priorities of particular participants in the field of VOND. Within the final assessment an implementation of 179 projects is proposed through the 56 defined measures; these projects are divided by the regions and priorities into the "green-green" projects (necessary and prepared), "green" projects (necessary and feasible), "yellow" projects (necessary and non-prepared) and projects the necessity of which will have to be proved in the transport general plan and the "red" projects (non-prepared, non-feasible and of less importance).

The environmental assessment of strategic documents has been carried out according to following successive steps:

- definition of environmental assessment objectives;
- determination of implementation variants of SPRDI SR 2020 and SRVOND SR 2020 and the method for their assessment;
- evaluation of compliance of visions, objectives a priorities of SPRDI SR 2020 and SRVOND SR 2020 environmental objectives of Environmental Report;
- evaluation of impacts of SPRDI SR 2020 and SPRVOND SR 2020 measures at the level of SEA strategic assessment, divided by territorial sectors;
- evaluation of compliance of cumulative impacts of SPRDI SR 2020 and SRVOND SR 2020 measures with SEA environmental objectives whereby the measures are divided according to the SR basic zoning (transport regions) KURS 2011.

The assessment of SD is carried out and described in Annexes 1 to 4; the results of the assessment as well as their justification are stated in the text of environmental report – Chapter IV.

## VII. PROPOSAL FOR MONITORING OF ENVIRONMENTAL IMPACTS, INCLUDING IMPACTS ON HEALTH

Measures related to the impacts on environment and population are defined as the part of SPRDI SR 2020 measures. The one of these measures is an environmental monitoring. The monitoring is important in particular in the context with the operation of motorways, expressways and the I. class roads and it may be applied for definition and localisation of additional measures relating to environment (ecoducts on D1, D2, D3, R1). Within the noise mapping the strategic noise maps along the I. class roads, motorways and expressways and in Bratislava agglomeration are elaborated. Based on the mapping, the particular noise related measures in affected settlement areas are designed.

The assessment of impact of transport sector on environment in the Slovak Republic is carried out through evaluation of indicators and processing of sector assessment reports at the European Union level and covered by activities of European Environmental Agency (EEA), Organisation for economic cooperation and development (OECD) and Statistical office of European Union (EUROSTAT).

We suggest to apply this procedure for monitoring of meeting environmental objectives established within SPRDI SR 2020 and SRVOND SR 2020 assessment. Following indicators are recommended:

- Number of elaborated and approved transport general plans - consisting of transport model - of cities and regions;
- Length of transport infrastructure
- Number of traffic accidents and number of fatalities and injured persons as a result of traffic
- Environmental efficiency of traffic
- Road traffic census, capacity of roads
- Volumes and performances in passenger and freight transport by transport modes, including the public passenger transport
- Modal split in passenger and freight transport
- Capacity of vehicles in road public passenger transport
- Final consumption of energy and fuels in transport sector;
- Emissions of core pollutants from transport;
- Emissions of greenhouse gases from transport;
- Exposition of inhabitants to noise from transport;
- Land take by transport infrastructure;
- Waste from transport;
- Share of transport in emergency deterioration of waters;

## VIII. POTENTIAL SIGNIFICANT CROSS-BORDER ENVIRONMENTAL IMPACTS, INCLUDING IMPACTS ON HEALTH

Assessed transport system of the Slovak Republic comprises international and European dimensions. Thus, it is natural that certain transport constructions incorporated into the preliminary indicative list will directly touch the border areas and they will terminate in the border crossing points. The direct environmental impacts exceeding the state borders are foreseen in the areas where the transport infrastructure connects to the infrastructure of neighbouring countries. Development of the high quality network with high capacity communications in the Slovak territory may influence the territory of the other State, in particular in relation to the increased traffic volume along with the increased generation of emissions, noise, as well as stronger barrier effect. These effects are expected in most cases as the process of pre-investment preparation of constructions with mutual information about transport aspects has preceded the process of multilateral and bilateral agreements.

Occurrence of potential cross-border impacts of transport constructions in the framework of SPRDI SR 2020 has been identified in case of measures and projects listed in the following table. The Annex 1 to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, Finland, 25 February 1991) has been used for the identification of projects with cross-border impacts. Summary description of their impacts on the individual environmental components is shown in the Annexes 2 and 4.

Tab. 63 Measures and projects with potential cross-border impacts

Transport mode	Measure	Project	Border
Road	1 Completion of motorway D1	D1 motorway Pozdišovce - state border SR/Ukraine	SR/Ukraine
	2 North-south interconnection to Poland and Czech Republic	D3 motorway Svrčinovec – Skalité	SR/Poland
	2 North-south interconnection to Poland and Czech Republic	R5 expressway Svrčinovec – state border SR/Czech Republic	SR/Czech Republic
	3 North-south interconnection in Eastern Slovakia	R4 expressway state border SR/Poland - Hunkovce	SR/Poland
	5 North - south communication axis in Central Slovakia	expressway R3 Zvolen - Šahy - state border SR/Hungary	SR/Hungary
	6 Road network in Bratislava agglomeration	motorway D4 Devínska Nová Ves - state border SR/Austria	SR/Austria
	7. Completion of priority axis west-east of Slovakia	expressway R6 Mestečko – Lysá pod Makytou – state border SR/Czech Republic	SR/Czech Republic
Railway	Technological ensuring of interoperability	Deployment of ERTMS in the corridor No. IV Kúty - BA - Nové Zámky - Štúrovo / Komárno, including Bratislava node (ETCS L2 + GSM R), implementation	SR/Czech Republic SR/Hungary
	Upgrading of TEN-T network	Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation	SR/Austria
	Upgrading of TEN-T network	Čierna nad Tisou, modernisation of node, project documents + implementation	SR/Ukraine
	Upgrading of TEN-T network	ŽSR, Upgrading of corridor: state border Czech Republic/SR- Čadca - Krásno nad Kysucou (outside), railway line, implementation	SR/Czech Republic
Inland waterway	Technical measures to ensure the required parameters of fairway of Danube waterway	Implementation of technical measures to remove barriers and resolving navigability of the Danube river, km 1880,260 - 1862,000 (Classification of Constructions No. 2151 and 2152)	SR/Austria



## IX. NON-TECHNICAL SUMMARY OF PROVIDED INFORMATION

Within the programming period 2014 - 2020 the new chances for the access to drawing the financial means from EU funds are open for the Slovak Republic. In the legislation concerning the implementation of the policy after the year 2013, the European Commission defined for the EU Members States the thematic and general ex-ante conditions (pre-defined necessary criteria having the direct and immediate connectivity to and impact on effective and operative achievement of particular objective within the investment priority or EU priority) through satisfying thereof the Commission has stipulated the access to funds within the programming period 2014 – 2020.

For the transport sector, the Commission laid down the condition to ensure the complex plans for the transport infrastructure development (SPRDI SR 2020), including the plans for sustainable development of the urban, suburban and regional transport (SRVOND SR 2020). These plans shall proceed from consistent analysis of needs in the sector and subsequent identification of the key bottlenecks (e. g. missing sections, inconvenient parameters of the infrastructure etc.) and potential development factors the implementation of which significantly contributes to the improvement of an existing status either from the transport, economy and environmental point of view or through their combination.

Strategic plan for development of the transport infrastructure in the Slovak Republic by 2020 represents a core mid-term strategic document of the Slovak Republic in the field of transport infrastructure development by 2020. Assessed document is the output from the Phase I of creating the complex transport sector strategy of the Slovak Republic.

Processing of the Phase II of document, the completion of which is assumed not later than autumn 2016, will be used for system set-up of long-term plan for transport system development in the Slovak Republic by 2030. Within this phase the MDVRR SR shall ensure the preparation of SR functional transport model contributing to define the needs of transport infrastructure development from more points of view.

SPRDI SR 2020 and SRVOND SR 2020 are strategic documents of the nationwide and international scope; they subject to the assessment of impacts no environment according to the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations. Assessed document is the output from the Phase I of creating the complex transport sector strategy of the Slovak Republic.

Measures of general nature having an indirect but evident impact, without possibility to specify the measure localisation, have been addressed in ER at so called the 1st level of the assessment of visions, objectives and priorities. Measures having a direct impact on environment, with a known infrastructure localisation, have been addressed in ER at so called the 2nd level corresponding to the process of SEA. Strategic documents contain also the list of transport infrastructure and VOND projects, the implementation of which shall be presented as the way of the fulfilment of declared measures. The level of particular projects corresponds to the contents of assessment of impacts on the environment on the EIA level.

The assessment shows that activities proposed within assessed visions and objectives of the railway, intermodal, inland waterway, public passenger and non-motorised transport and partly the road and air transport have the potential to support following defined environmental objectives:

- To improve the access to transport services and support social inclusion;
- To reduce the noise pollution effect on population;
- To reduce the level of air pollution in residential areas
- To improve the safety of transport;
- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;

Significant non-compliance with defined environmental objectives was not identified within the assessment of visions and objectives of the railway, intermodal, inland waterway, public passenger

and non-motorised transport provided that the activities laid down in the environment legislation are implemented.

However the visions, objectives and activities proposed within assessed visions and objectives of the road transport and partly the air transport constitute potential conflict, in particular with the following environmental objectives:

- To reduce the production of emissions from transport;
- To reduce the production of greenhouse gas emissions;
- To increase energy resources efficiency;
- To minimise agricultural and forest land take;
- To ensure the flood protection of the territory;
- To ensure the protection of valuable parts of nature and functionality of ecosystems;
- To ensure the integrity of Natura 2000 network;
- To maintain ecological stability of landscape;
- To preserve integrity of landscape and its scenery value;
- To protect the cultural heritage;
- To increase energy resources efficiency;
- To use the material resources reasonably, prevent waste production.

The strategic level of the SEA assessment requires addressing the complex spatial relationships of a whole network of given transport system. Within the 1<sup>st</sup> phase of preparing SPRDI SR 2020 the comprehensive list of potential projects has been compiled; these projects have been further analysed and assessed with regard to their necessity, preparedness and feasibility. The methodology of the list compilation has been set-up to the identification of apparent, indisputable projects (so called green projects) implementable during this period. Other projects (yellow, red) have to be further processed in detail so as their relevance in the context with their possible implementation may be demonstrated.

Projects classified in categories green, yellow and red are the part of defined measures of SPRDI SR 2020 and they are subject to the strategic environmental assessment. For this reason the strategic environmental assessment could not be aimed only at the green projects (not disputed projects) included into the project plan of SPRDI SR 2020. All projects classified in the project pipeline have been subject of the ER.

Within the strategic assessment of measures, the analysis of their collisions with Natura 2000 sites was carried out, including potential impacts on Natura 2000 sites defined by approximately 1 000 m wide corridor. The options for alternative solutions, cumulative impacts and assessment status according to Articles 6(3) and 6(4) of the Habitats Directive have been assessed. Based on the analysis the next procedure has been recommended.

SPRDI SR 2020 defines seven infrastructure measures for implementation of the motorway and expressway network assessed at a level of the strategic assessment of environmental impacts. The best point assessment has been assigned to the following measures: „Completion of motorway D1“ and „North-south interconnection to Poland and Czech Republic“ (D3 motorway and R5 expressway). In both cases the projects indicated with green colour are dominating; it confirms the correctness of their choice from an environmental point of view. Environmental report recommends to implement the measures within the programming period 2014-2020 (2023).

The measure „North-south interconnection in Eastern Slovakia“ (R4 expressway) has been assessed as partly environmental trouble free. Some doubts are identified in relation to the routing of an expressway outside the residential corridor with an interference with largely non urbanised environment, into the landscape of natural character. Environmental report recommends to re-assess the routing in this section, within the feasibility study also with possible verification by means of transport model of the Phase II of SPRDI SR 2020.

Within the measure "East - west communication axis in Central Slovakia" (R2 expressway) and "North - south communication axis in Central Slovakia" (R1 and R3 expressways) the issue of the routing of expressways has been identified in relation to core settlement areas, protected Natura 2000 sites and in the context of planned capacity of the 4 lane expressway. The measure "North - south communication axis in Central Slovakia" has been drafted in a configuration R3 and R3-R1-R3. The R3 route is in comparison with R3-R1-R3 route environmentally more acceptable whereby the R3-R1-R3 route is assessed as environmentally most unacceptable measure. As there are the mutual spatial

relations of abovementioned measures and alternatives, the ER considers as reasonable to looking for the options for new effective routing and categories of roads within the processing of the Phase II of strategic document taking into account of the binding part of KURS 2001 and 2011.

Within the measure „Road network in Bratislava agglomeration“ (D4 motorway, R1 and R7 expressways, taking into account of D1 motorway) the justified residential demands for implementation of a planned transport infrastructure have been identified. The impacts on the land take and the not entirely clarified relationships concerning the transport services of territory ensured by the parallel routed capacitive communications (D1 motorway in 6 lane layout with collectors, proposed R1 expressway providing the transport services for urbanised band of municipalities) have been indicated as slightly negative impacts. Within the Phase II of SPRDI SR 2020, the Environmental Report recommends to simulate the optimal configuration, capacity and routing of R1 expressway and upgraded I/61 road in Bratislava agglomeration taking into account the potential of integrated transport system.

The issue related to the measure „Completion of priority axis west-east of Slovakia“ (R6 expressway) consists in timing and defining of the road category. The measure does not result in the interference with protected natural areas. However a premature implementation of expressway in a new route with 2 and 4 lanes involves the territory fragmentation. The Environmental Report recommends to review in detail the options of configuration and phasing of the road construction through the feasibility study.

The measure "Development of the I. class road network and expressway network outside the TEN-T" (expressways) does not create continuous road structure. Within the measure two expressways are considered namely the R7 in continuation from the border of Bratislava agglomeration in Dunajská Streda up to Lučenec and R8 expressway on Ponitrie.

The main meaning of the R7 expressway construction, in territory outside the Bratislava agglomeration, consists in creating the functional road axis in south part of the Slovak territory. The most deficiency of existing road axis is its discontinuity in the straight direction between important residences Dunajská Streda and Nové Zámky and construction-technical condition in the corridor of a localised I/75 road.

Within the measure "Development of the I. class road network and expressway network outside the TEN-T" the ER recommends to implement a construction of R7 expressway in the section Dunajská Streda – Nové Zámky taking into account an optimal phasing of 4 lane configuration of the road. Within the transport model of the Phase II of SPRDI SR 2020 it is necessary to re-review reasons for the construction of R7 expressway in section Nové Zámky – Lučenec, namely in relation to possible building modification of parameters of existing I/75 road and creating the bypasses of municipalities on the I/75 road. In abovementioned section predicted AADT values on the I/75 road will not achieve the orientation level adequate for the 4 lane layout of the road even in 2040.

Reasons for construction of a new road in corridor Nitra – Partizánske/Bánovce nad Bebravou do not consist in capacitive insufficient I/64 road but in a high share (38%) of the length of sections localised in residential areas of municipalities (from Výčapy – Opatovce municipality up to Ludanice – 14 km continuous passage through the municipality residential areas). A construction of the R8 expressway will affect both referred roads as it results from the analysis of transport development.

The construction of R8 expressway will have a positive impact on existing road network (I/64, II/593, II/579, II/592, III/50047) in particular on affected I/64 road sections in which the traffic volume will be considerably reduced (-54 %). As a contribution will be the positive impact on the environment (decrease in noise and emissions) and the increase of traffic safety in settlement territory. With regard to the predicted transport burden the ER recommends, within the feasibility study concerning the R8 expressway, to review reasons for the construction of a new road in the expressway parameters.

A summary evaluation of measures related to the railway, intermodal, air, inland waterway, public passenger and non-motorised transport provides positive results as regard the compliance with environmental objectives. In relation to the landscape and environmental components partly slight negative and zero impacts on Natura 2000, National System of Protected Areas, TSES areas and components of environment has been assumed. The ER recommends to implement the measures of stated transport modes in the framework of programming period 2014 – 2020 (2023).

## X. INFORMATION ON FINANCIAL REQUIREMENTS

The financial plan of the SPRDI SR 2020 implementation directly follow so-called green projects realisation which are undoubtedly as regards their subject, extent, timing and other parameters. A necessity and total justification of these projects shall be enough transparent so it is possible to consider their financing and/or implementation also without acknowledging within the transport model prepared as the part of consequent activities of the Phase II of transport sector strategy implementation. Financial plan for the implementation of outputs from Phase I of transport sector strategy preparation is compiled for the horizon 2014 – 2020 (2023).

The SPRDI SR 2020 estimates a financial allocation potentially achievable in years 2014 – 2020 (2023) from the European Union funds. Means may be used for investment into the construction of new sections or other transport infrastructure components, upgrading existing sections and providing for pre-project preparation in the form of project documentation, etc.

Within the programming period 2014 – 2020 the financial means will be available for the Slovak Republic from the following European financial instruments:

- Cohesion Fund (CF);
- European Regional Development Fund (ERDF);
- "Connecting Europe Facility" (CEF).

The national co-financing shall be bound to the means provided by the European Union from abovementioned funds. The European Funds participate in financing with up to 85% and the national co-financing 15%.

The following table shows a transparent summary of funding allocation from particular European Funds, including co-financing from the State budget.

Tab. 64 SPRDI SR 2020, planned financial resources - European Funds

No.	Name of priority axis/Priority	EU + National co-financing (in EUR)	EU 85% (in EUR)	National co-financing 15% (in EUR)
<b>COHESION FUND</b>				
1.	Railway infrastructure (TEN-T)	642 163 725	545 839 166	96 324 559
2.	Road infrastructure (TEN-T)	1 344 117 647	1 142 500 000	201 617 647
3.	Public passenger transport	591 000 000	502 350 000	88 650 000
4.	Airport infrastructure	137 000 000	116 450 000	20 550 000
5.	Inland waterway infrastructure	2 714 281 372	2 307 139 166	407 142 206
COHESION FUND TOTAL		2,740,000,000	642 163 725	545 839 166
<b>ERDF</b>				
6.	Railway infrastructure	353 508 502	300 482 227	53 026 275
7.	Road infrastructure	591 773 209	503 007 228	88 765 981
ERDF TOTAL		945 281 711	803 489 455	141 792 256
<b>CEF</b>				
--	Financial envelope	874 117 647	743 000 000	131 117 647
Total		4,566,500,000	4 533 680 730	3 853 628 621

Source: SPRDI SR 2020

The table contains a breakdown of those financial package CF and ERDF between the different transport modes through funding priorities.

There is in the CEF fund prepared for the Slovak Republic a fixed allocation so. financial envelope 743.0 million EUR[1] under the cohesion of the CEF, 10 billion EUR package only for the Cohesion countries. This part is not in terms of EP and Council Regulation (EU) No. 1316/2013 on establishing the Connecting Europe Facility percentage split between the different sub-sectors, but according to the requirements of the EC should be 90% of the resources earmarked for the rail sector and 10% should

be used to fund the development of the road network . The financial envelope for the SR is fixed only for projects implemented at the beginning of the program period between 2014 - 2016. In the event of under-execution of the remaining funds are transferred into the original package 10 billion EUR and will be available to the other cohesion countries. Obtain additional funding to this state of the financial package will take the form of open competition between Member States. The fund CEF can only finance priority projects in the core TEN -T priority projects corridors under the CEF and CEF separate projects that are not part of the priority corridors, but are part of the Annex to Regulation CEF.

Financial resources estimated in the strategic document for the funding of management and maintenance of transport infrastructure have been specified on the basis of historical data. For the next years the potential resources for maintenance of transport infrastructure managed by the State may be estimated in the amount of about 120 million EUR/year. According to the document, this amount does not cover actual maintenance needs. Therefore it is necessary, within the Phase II of SPRDI SR 2020 development and in accordance with set-up system parameters, to prepare a realistic sustainable plan for financing the transport sector also from the maintenance point of view.

Total financial needs have been determined on the basis of time and financial transformation of SPRDI SR 2020 design plan. The conditions for financing from the CEF fund represent an important aspect directly influencing the parameters for composition of financial needs; its fixed allocation shall be available only in years 2014 – 2016 namely for projects implemented in relation to the TEN-T core network.

Following financial needs result from actual state of knowledge and definition of particular projects with scheduled re-assessment within the Phase II of the development of transport sector strategy; this should be available in 2016.

Tab. 65 SPRDI SR 2020, total financing needs for period 2014 - 2023

Item	TOTAL	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Financing needs (in thous. EUR)</b>											
Railway infrastructure	2 011 203	0	200 000	334 755	380 673	525 000	351 775	144 000	35 000	40 000	0
Road infrastructure (TEN-T)	4 626 957	397 883	586 790	696 387	866 181	757 477	674 849	564 407	49 790	33 193	0
Road infrastructure (outside TEN-T)	968 042	27 604	161 015	209 213	242 289	199 377	97 606	20 908	10 030	0	0
Public passenger transport	950 688	61 914	150 367	200 938	204 750	224 775	40 313	60 631	7 000	0	0
Airport infrastructure	170 991	0	6 240	18 423	6 832	52 332	85 832	1 332	0	0	0
Inland waterway infrastructure	478 200	14 000	17 500	17 000	46 700	148 000	181 000	54 000	0	0	0
<b>Total</b>	<b>9 206 081</b>	<b>501 401</b>	<b>1 121 912</b>	<b>1 476 716</b>	<b>1 747 425</b>	<b>1 906 961</b>	<b>1 431 375</b>	<b>845 278</b>	<b>101 820</b>	<b>73 193</b>	<b>0</b>

Source: SPRDI SR 2020      Note: The table does not include the costs for ensuring the project documentation.

The funding of projects of the public passenger and non-motorised transport is described in Annex 1 to SRVOND SR 2020 where also the other available financial instruments of the European Union are taken into account (OPII, IROP). The investment, construction and justified costs of projects are specified in the project pipeline as far as they are known in the current state of preparation.



## **XI. EVALUATION OF SPECIFIC REQUIREMENTS RELATING TO THE SCOPE OF ASSESSMENT AND COMMENTS RECEIVED IN RESPONSE TO NOTIFICATION ON STRATEGIC DOCUMENT**

On the date 15.08.2013 the MDVRR SR in cooperation with MŽP SR defined the scope of assessment of the strategic document with nationwide impact „Strategic plan for development of the transport infrastructure in Slovak Republic by 2020“ according to the Article 8 and Article 17 paragraph 5 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations, No. 18810/2013/B340-SOPD/51155.

In addition to the common conditions resulting from the Act, the specific conditions resulting from comments received in response to the notification on strategic document have been defined. The list of specific conditions of assessment scope, raised comments to the assessment scope and the way of their taking into consideration in the report is presented in following tables.

Tab. 66 Specific requirements for assessment scope and solutions

Requirement	Solutions
<b>The scope of assessment</b> of the strategic document with nationwide impact „Strategic plan for development of the transport infrastructure in Slovak Republic by 2020“ according to Article 8 and Article 17 paragraph 5 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations	
- To assess the impact on Natura 2000 sites;	Within the ER and its Annexes the assessment of impacts on the Natura 2000 network areas adequate to strategic assessment level has been carried out. The assessment has been carried out at level of visions, objectives, measures and cumulative impacts.
- To assess the foreseen impacts on the interests of nature protection (National System of Protected Areas)	Within the ER and its Annexes the assessment of impacts on the National System of Protected Areas network areas adequate to strategic assessment level has been carried out. The assessment has been carried out at level of visions, objectives, measures and cumulative impacts.
- To assess the impact on territorial system of ecological stability;	Within the ER and its Annexes the assessment of impacts on the TSES adequate to strategic assessment level has been carried out. The assessment has been carried out at level of visions, objectives, measures and cumulative impacts.
-To specify measures to minimize effects of communications in protected areas and their localisation in particular environment;	The ER specifies the measures to minimize the impacts within the more detailed assessment description in Annexes 2.1 and 2.2.
-To describe impacts on water management protected areas, water sources and their protection zones, protected deposit areas etc. as well as the proposal of measures for mitigation of negative impacts on such territories;	The issue of CHVO, PHO and water sources, soil and rock environment shall be a part of the description and assessment of impacts referred to in the ER. Measures to minimize negative impacts are specified in Annexes 2.1 and 2.2 and Chapter V.
-To specify the provision for mineral wealth protection when implementing the projects of the transport infrastructure in accordance with the Act No. 44/1988 Coll. on protection and use of mineral wealth (Mining Act);	Impacts on protected deposit areas have not been identified. Projects of transport constructions are proposed already in the preparation phase so as they do not intervene in such areas, whereas they represent the limits for the constructions positioning.
- To describe the compliance with other already adopted relevant strategic documents, in particular the KURS, Water Directive, prepared Strategy for adjustment of the Slovak Republic to adverse consequences of climate change, etc.;	It is observed in the Chapters II.6., III. of the ER and described sequentially as a part of the assessment in Annexes 2.1 and 2.2; in ER a binding part of the KURS 2001 and 2011 creates the assessment basis of transport services.  Adaptation Strategy of Slovak Republic to Adverse Impacts of Climate Change is being prepared in line with initiative of Ministry of Environment of Slovak Republic. The Strategy is now subject to the public discussion to the 1st draft. The report on assessment in the part of "Air and climatic factors" determines environmental objectives "To decrease production of transport emissions" and "To decrease production of greenhouse gases emissions" with the framework context to the Adaptation Strategy of Slovak Republic to Adverse Impacts of Climate Change.

Table continuation

Requirement	Solutions
- Within the synthesis, to complete the material through the emphasising of environmental safety, environmental worthiness, environmental capacity and environmental usability eventually environmental aesthetics - thus, to complete the complex view at environment so, as the material included, in addition to the component/sector approach (water, land, noise, biota, etc.), also the environmental quality in the sectoral and regional summary.	In environmental context, the sectoral and regional assessment is a subject-matter of analyses and assessments of cumulative impacts referred to in Annex 3 of the ER; summary text is in Chapter IV.9 Summary cumulative assessment. A comment is aimed, as regard to its general contents, at the use of the outputs from landscape planning process LANDEP (Landscape Ecological Planning). The methodology of SEA process, including the ER, is legislatively defined; an incorporation the expert methodology of the LANDEP process into ER to SPRDI SR and SPRVOND SR is limited by the option to draw the knowledge and outputs from the LANDEP project for all Slovakia territory.
- To specify the issue of combined transport in SR;	Individually specified intermodal transport mode (also including the combine transport operation) constitutes a part of analyses, assessment and evaluation of impacts within the ER.
- To specify the relation between the issue of solved strategy and the issue of cycling (cycle routes) through the promotion of regional passenger transport within the urban agglomerations;	Individually specified mode of public passenger and non-motorised transport (SRVOND SR 2020 includes the IDS systems at the regional, agglomeration and urban level, cycling) constitutes a part of analyses, assessment and evaluation of impacts within the ER.
-To describe the justification for the entry the projects into the strategic document with regard to the strategic transport routes;	The description of hierarchy of settlement and transport links, transport routes in relation to the justification of the choice of measures (projects) within the SEA assessment is a part of the ER.
- To evaluate in writing the fulfilment or non-fulfilment (to provide reasons of non-fulfilment) of all positions (including public) and comments to notification of strategic document and to the assessment scope and to evaluate the fulfilment of particular points of the assessment scope in a separate chapter;	The evaluation is the subject of this Chapter.
<b>Ministerstvo financií Slovenskej republiky</b> Sekcia rozpočtovej politiky Štefanovičova 5 817 82 Bratislava 15 Naše číslo MF/20595/2013-411	Vybavuje / tel. Šuláková/59582338 Bratislava 15.8.2013
In relation to the communication on the discussion about the strategic document assessment scope No. 18810/201 afc340-SOPO/49413 we inform, that the Ministry of Finance of the Slovak Republic has not raised any comment to presented document, as it has been announced through the letter No. MF/17787/2013-411 of 15.7.2013. With regard to the competence of the Ministry of Finance of the Slovak Republic the comments raised to the document within the comment proceeding have been accepted. The Ministry of Finance of the Slovak Republic has not raised any comment when the document has been submitted to the negotiation of Economic and Social Council of the Slovak Republic.	No comments.

Table continuation


Requirement	Solutions
<p>Ministerstvo kultúry Slovenskej republiky sekcia kultúrneho dedičstva Námestie SNP 33, 813 31 Bratislava</p> <p><b>MINISTER</b></p> <p>Náše číslo MK /2013-221/4/00</p> <p>After the surveying the notification of strategic document with nationwide impact i.e. "Strategic plan for development of transport infrastructure in Slovak Republic by 2020" published on the website www.mindop.sk and www.enviroportal.sk, the Ministry of Culture of the Slovak Republic has the honour to draw your attention to the fact, that in the meaning of provision referred to in Article § 30 paragraph 4 of the Act No. 49/2002 Coll. on protection of monument fund as amended by later regulations (hereinafter referred to in as the "Act"), the binding opinion of locally competent regional monuments board is required to all decisions of other authorities of the state administration and the territorial self-governing authorities, by which the interests protected by this Act may be affected. In particular we accentuate the context with need to mark also the areas protected under the Act No. 49/2002 Coll. on protection of monument fund as amended by later regulations. As the protected areas (urban monument reserves, monument reserves of popular architecture, monuments sites, protection zones of national cultural monuments, protected archaeological sites) and intangible national cultural monuments.</p>	<p>Bratislava 15.08.2013</p> <p>Vybavuje/linka Ing. Boris Tušer 20482-I-421</p> <p>Cultural monuments and monument areas which are subject of protection under Act No. 49/2002 Coll. on protection of monuments fund, as amended by later regulations, are included in the Environmental Report in separate field of assessment Chapter "Cultural heritage".</p>
<p>Ministerstvo zdravotníctva Slovenskej republiky, Sekcia európskych programov a projektov, Limbová 2, 837 52 Bratislava</p> <p>NAŠA ZNAČKA Z39337-2013-OP</p> <p>VYBAVUJE/LINKA Mgr. Gabriela Kopcová/410</p> <p>BRATISLAVA 28. 8. 2013</p> <p>- in point 2.2 Specific requirements - 2.2.1 - we require to add a following new indent: „- To describe impacts on natural healing and natural mineral sources (and their protection zones) and on climatic conditions appropriate for healing, protected by the Act No. 538/2005 Coll. - on natural healing waters, natural healing spas, spa spots and natural mineral waters and on amendments of some acts as amended by later regulations, and to define relevant measures for possible effects elimination, or to add this text to the 5<sup>th</sup> indent.</p>	<p>With regard to the character of strategic document the assessment of impacts on natural healing and natural mineral waters included into the subject-matters of an assessment. The completion of the assessment scope has been unnecessary.</p>

Table continuation

Requirement	Solutions				
<div>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia ochrany prírody a tvorby krajiny Námestie Ľudovíta Štúra 1, 812 35 Bratislava</div> <div>Váš list číslo/zo dňa 18810/2013/B340- SOPD/51155</div>	<div>Naše číslo 7145/2013-2.1 43767/2013</div> <div>Vybavuje/電 Vršanská/59562311</div> <div>Bratislava 23.8.2013</div>				
Within the Chapter 2.2 Specific requirements stated in the assessment scope (p. 2) we require in the point „To assess the impacts on the interests of nature protection (National network of areas of conservation)" to replace the text in brackets with the following text: "To assess the impacts on the interests of nature protection (protected areas, protected species)". Along with it we draw attention to a correct use of the name of the Natura 2000 network of areas of European importance i.e. in all text of the document we require to amend the name of NATURA 2000.	It is accepted in the ER.				
SOPaTK sent on 22.7.2013 its opinion (No. 6517/2013-2.2) to notification of strategic document to the department of environmental assessment and management of the Ministry of Environment of the Slovak Republic. We require to consider the abovementioned opinion as well as recommendations stated in it. In continuity with it we have the honour to suggest you the cooperation of SOPaTK in the next development of document in parts related to the assessment of impacts on protected areas.	The way of the comment solution is stated in the following table dedicated to the notification of strategic document.				
<div>MINISTERSTVO OBRANY SLOVENSKEJ REPUBLIKY sekcia ekonomiky národný riaditeľ pre infraštruktúru Kutuzovova 8 832 47 Bratislava</div> <div>Váš list číslo/zo dňa 18810/2013/B340-SOPD/51155</div>	<div>Naše číslo SEEK/NRpl-14-17/2013</div> <div>Vybavuje/ tel. Ing. Bajner / 313322</div>				
The Ministry of Defence of the Slovak Republic, as the competent authority according to Article 8 paragraph 8 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations, does not raise any comment.	No comments.				
<div>MINISTERSTVO PŮDOHOSPODÁŘSTVA A ROZVOJA VÍDEKA SLOVENSKEJ REPUBLIKY Dobrovičova 12, 812 66 Bratislava 1</div> <div>Váš list číslo 18810/2013/B340-SOPD/51155</div> <div>zo dňa 15. 08. 2013</div>	<div>naše číslo 23239/2013</div> <div>vybavuje/tel. Miklová/501</div> <div>Bratislava 28. 08. 2013</div>				
The Ministry of Agriculture, Environment and rural development of the Slovak Republic does not raise any comment to the assessment scope of the strategic document with nationwide impact "Strategic plan for development of the transport infrastructure in Slovak Republic by 2020".	No comments.				



Table continuation

Requirement	Solutions
<p>Ministerstvo práce, sociálnych vecí a rodiny Slovenskej republiky Spilárska 4,6,8, 816 43 Bratislava sekcia riadenia ESF</p> <p>Váš list číslo/zo dňa 18810/2013-B340-SOPD/51155</p> <p>Naše číslo č.č.: 17858/2013-M_ODP č.č.: 38176/2013</p> <p>Vybavuje / tel. Mgr. Vafovský / 2046 2051</p> <p>Bratislava 27.08.2013</p>	
Based on the publication of the assessment scope of the strategic document with nationwide impact "Strategic plan for development of the transport infrastructure in Slovak Republic by 2020" we have the honour to inform you that the Ministry of Labour, Social Affairs and Family of the Slovak Republic does not raise any comment.	No comments.
<p>ÚRAD VEREJNÉHO ZDRAVOTNÍCTVA SLOVENSKEJ REPUBLIKY</p> <p>Naša značka OHŽP – 6693/2013</p>	<p>Vybavuje Mgr. Savinová</p> <p>Bratislava 28.8.2013</p>
The strategic document defines the core medium term and long-term objectives in the field of the transport infrastructure development, establishes development priorities and identifies the measures and resources for their achievement. Through the implementation of projects included in the strategy, the positive and negative changes in the activity of transport operation and in its impacts on the health of population may be expected. For this reason it shall be necessary to address in detail within the assessment the impacts on the health of population affected by proposed strategy.	Strategic environmental assessment of impacts on the health of population is enumerated in detail in the Act No. 24/2006 Coll., Annex 4 „Contents and structure of the Environmental Report“. Within presented ER the issue is described and assessed in the meaning of abovementioned Act.
<p> Bratislavský samosprávny kraj</p> <p>Naša zn. 10807/2013</p> <p>Váša zn. 18810/2013/B340-SOPD/51155</p> <p>Vybavuje Ing. K. Štaničková</p> <p>Telefón 48264 612</p> <p>Dátum 22.08.2013</p>	
The Bratislava self-governing region does not raise any comment to the assessment scope of the strategic document in the meaning of the Act No. 24/2006 Coll.	No comments.
<p>Ing. Milan Muška výkonný podpredseda ZDRUŽENIE MIEST A OBCÍ SLOVENSKA BEZRUCHOVA 9, 811 09 BRATISLAVA</p> <p>Bratislava 23.8.2013 č. j. 416/2013 - Do</p>	
In response to your letter No. 18810/2013/B340-SOPD/51155 of 15.8. 2013 we have to honour to inform you that the Association of Cities and Municipalities of Slovakia does not apply any comment to the assessment scope of the strategic document with nationwide impact - Strategic plan for development of the transport infrastructure defined according to Article 8 and Article 17 paragraph 5 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations.	No comments.

Tab.67 Evaluation of comments to the notification of strategic document and to separate strategic documents with the effect on ER

Comment	Explanation
MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálneho hodnotenia a riadenia Váš list číslo/zo dňa Naše číslo 6476/2013 - 3.4/vst Vybavuje/links Ing. Luciak Bratislava 22. 07. 2013 <b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b>	
1. In this processing phase it may be stated, that the strategic plan will have impacts on environment; it is necessary to quantify/determine such impacts.	Comment addressed to the SD – the ER takes over the data on financial requirements of measures from documents SPRDI SR 2020 and SRVOND SR 2020.
2. It is stated on the page 3, that the main objective is to define the needs of the transport sector. A material in this stage does not address these needs. We suppose that the needs will be in ER defined and justified.	Comment addressed the notification on SD– in the text of ER the needs of the transport sector resulting from SD conclusions are described in more detail.
3. The main task of the material is an identification of measures, in particular financial measures. The identification has to proceed from the clear visions on the building-up the transport infrastructure till 2020 so as the subject of funding would be explicit. A non-specific material may evoke the doubts of judges of application in Brussels with regard to the Slovak visions on the transport infrastructure.	Comment addressed to the notification on SD – the issue of an identification and implementation of transport measures, including financial measures, is assessed in detail and with addressing within the ER.
4. We suggest that the strategic plan would be elaborated in variant solutions as the routing of transport infrastructure should be depend on the impact on environment and the solution with a minimum smallest impact on environment should be sought. It is necessary to state the reasons for an invariant solution.	Comment addressed to SD - the ER include the reasons for invariable proposal of SD and the assessment of SD impacts in the extent of the implementation and zero variants.
5. In the ER it is necessary to consider also their cross-border effects of the transport infrastructure and these should be assessed in accordance with ESPOO Convention.	The ER identifies the transport infrastructure with expected cross-border impacts in accordance with ESPOO Convention.
6. We suppose that within the strategic plan also the issues such as the growth of individual car transport, in particular in cities, will be addressed and thus the impact on environment, health of population will be reduced ... during the traffic on specified transport infrastructure - as it is the one of the White Paper objectives.	Comment addressed to SD– expected change in nodal split in favour of VOND shall be a part of assessment indicators in the ER.
8. We suppose to pay a higher attention to forests in material - they should by assessed not only from the „minimum land take" point of view; more attention should be paid to the protection against floods (in material incorrectly mentioned as the "flood" protection) also with regard to the fact, that the transport and transport infrastructure must preventive allow for the floods and they shall be taken into account in building-up as an environmental threat.	The ER pays attention to the protection against floods as a part of assessment of the complex water issue.

Comment	Explanation
<p>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálneho hodnotenia a riadenia</p> <p>Váš list číslo/zo dňa 82...</p> <p>Naše číslo 6478/2013 - 3.4/vst</p> <p>Vybavujúcejka Ing. Luciak</p> <p>Bratislava 22. 07. 2013</p> <p><b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b></p>	
In material (page 3, point 4) the terms as „strategy“, „vision“, „plan“ should be classified in correct time hierarchy of the procedure with regard to the contents/definition of terms.	Comment addressed to SD – terms „strategy“, „vision“, „plan“, as well as „measures“, „projects“ „project plan“, „project pipeline“ are in the ER distinguished according to their contents and a derived level of environmental assessment.
10. We suggest to supplement the Part II of material: Basic data on strategic document, Chapter 7: Relationship to other strategic documents: Strategic documents and policies of the Slovak Republic - Other national, sectoral strategic materials (p. 5) - the Adaptation Strategy of Slovak Republic to Adverse Impacts of Climate is preparing (submission to the session of the Government of the Slovak Republic 12/2013).	Comment addressed to the notification on SD - the Adaptation Strategy of Slovak Republic to Adverse Impacts of Climate is a part of the ER contents.
12. The strategy does not consider the cycling (cycle routes), the promotion of regional transport within the regions absents as well as promotion of the use of innovative fuels (electromobiles, bio-components in fuels, promotion of building-up the fuelling station for biofuels), in particular within the urban mass transport.	Comment addressed to SD - the SRVOND SR 2020 is aimed at the development of public passenger and non-motorised transport (including cycling). It consists of the visions, objectives, measures and projects being the subject-matter of strategic environmental assessment. A promotion of the use of innovative fuels is not the subject-matter of SRVOND SR 2020.
13. Point 3 Main objectives, p. 3, the first paragraph, the last sentence - we notice that the part of sentence before the comma in conflict with the part of sentence after the comma thus the text is contradicting oneself; we suggest to amend the text.	Comment addressed to the notification on SD – accepted.
14. Point 4 Contents, the second paragraph Analysis of transport sector in the Slovak Republic - we suggest to supplement the negative transport impacts by the impact on health; this issue should be further processed.	Comment addressed to the notification on SD – the assessment of impact on the health condition of population is a part of the ER.
15. In Part 7, p. 4 „Relationship to other documents“ we notice that the „Lisbon Strategy “ is formal document; the Lisbon Strategy has been at the Gothenburg session supplemented by the environmental pillar, but the document title has not been changed by it, therefore the „Gothenburg Strategy“ is incorrect title.	Comment addressed to the notification on SD – accepted.
16. In Part 7, p. 4 „Relationship to other documents“ it would be proper to specify, whether this strategic document is in accordance with mentioned documents, e.g. the White Paper, a Roadmap for moving to a competitive low carbon economy in 2050, as e. g. the White Paper includes the reference to a reduction of at least 60% of emissions of greenhouse gases by 2050 with respect to 1990; also the goal for transport will be to reduce emissions of greenhouse gases to around 20% below their 2008 level.	Comment addressed to the notification on SD – accepted in the ER, see the Chapter III.5.

Table continuation

Comment	Explanation
<div> <div> MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY            Sekcia environmentálneho hodnotenia a riadenia </div> <div> Váš list číslo/zo dňa            6478/2013 - 3.4/vl </div> <div> Naše číslo            6478/2013 - 3.4/vl </div> <div> Vyhovujúca linka            Ing. Laciuk </div> <div> Bratislava            22. 07. 2013 </div> </div>	<b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b>
17. We suggest to add into the Part 7 „Strategic documents and policies of the Slovak Republic" all strategic documents through which the strategic documents have been implemented in the system of strategic documents and legal acts in the Slovak Republic, e. g. sectoral and component strategies and concepts, National action plan for green procurement in SR for 2011 to 2015 (hereinafter referred to as the "NAP GPP"); The Act No. 25/2006 Coll. on public procurement and on amendments of some acts, as amended by later regulations.	Comment addressed to the notification on SD – accepted in the ER.
18. In Part 7, p. 4 „Relationship to other documents" the reference to the Adaptation Strategy of Slovak Republic to Adverse Impacts of Climate is missing; i.e. the infrastructure projects characterised by long-term lifetime and high costs have to be resistant to actual and future effects involved by the climate change.	Comment addressed to the notification on SD – accepted in the ER, Chapter III.5.
19. In Part III. points 1.3. and 1.4. we suggest in procuring the raw materials and energy to proceed in accordance with NAP GPP, approved by the Resolution of the Government of the Slovak Republic No. 22/2012, and to include into the public procurement the environmental aspects (green public procurement) whereas there are the projects procured from public and EU resources.	Comment addressed to the notification on SD – accepted in the ER.
20. In Part 2.4. Waste, p. 9 - we suggest to consider also the other alternative of the waste disposal rather than the deposition of the waste in landfills (paragraph 5, the second sentence) which is not from the environmental point of view the best way.	Comment addressed to the notification on SD – in the ER, the waste management respects the requirements of relevant legislation and particular programmes of the waste management. As a part of the project documentation the "Project of waste management" is elaborated and approved by competent authority.
21. In Part 3.2. Impacts on water conditions - Impact on groundwaters, p. 12, the last paragraph - the statement, that the impact on surface waters and groundwaters is necessary to eliminate by the technical and preventive measures is uncertain even vague. We consider that it is necessary to supplement the character of such measures and to specify them more precisely.	Comment addressed to the notification on SD – it is impossible to define the concrete measures for the water protection at the level of strategic document. These are defined at the level of projects, in the higher phase of the investment preparation.
22. In Part „Annexes" we require to add the map of current situation in deployment of combined transport terminals in the Slovak Republic.	Comment addressed to the notification on SD – it is taken into account in the graphic annex to the ER.
23. In title of Chapter III. (Basic data of assumed impacts of the change of strategic document on the environment including the health), we draw attention to term „change of strategic document"; a submitted material does not deal with the change of strategic document, but with the elaboration of a new strategic document.	Comment addressed to the notification on SD – accepted.

Table continuation

Comment	Explanation
<p>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sektoria environmentálneho hodnotenia a riadenia</p> <p>Váš list číslo/zo dňa 82...</p> <p>Naše číslo 6476/2013 - 3.4/vst</p> <p>Vyhovujú linka Ing. Laciuk</p> <p>Bratislava 22. 07. 2013</p> <p><b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b></p>	
24. In Chapter III. 1 (Requirements for the inputs), the requirements for transport are not specified when building-up the transport infrastructure (e. g. the change of transport, the use of freight transport and construction machineries during the building-up, etc.), also requirements for labour forces during the new transport infrastructure building-up and operation are missing.	Comment addressed to the notification on SD– the assessment of impacts at the strategic environmental level is carried out in the ER. The assessment of the building transport impact and requirements for labour forces corresponds to the process at the EIA level. The ER takes over the elaborated assessments of particular projects of the transport infrastructure at the EIA level that are taken into account as much as possible.
25. In Chapter III.2.3 (Water), we recommend to cite the Act No. 364/2004 Coll. on waters and on amendment of the Act Of the Slovak National Council No. 372/1990 Coll. on offences, as amended by later regulations (Water Act) so as the relevant legal acts concerning the waste, noise and vibrations are referenced in further Chapters.	Comment addressed to the notification on SD– the full text of Acts is stated in the ER in the part „Terms“.
26. In Chapter III.2.5 (Noise and vibrations), the attention is drawn mainly to the noise; we suggest to supplement also the impact of vibrations, e.g. during tunnelling, etc. It is necessary to apply the noise maps of the Slovak Republic for the reason of nationwide scope of presented material.	Comment addressed to the notification on SD– it is accepted in the ER within the assessment of impacts on the population and the health.
27. In Chapter III.2 (Outputs data), we recommend to supplement the sub-Chapter „Significant terrain modifications and interferences with the landscape“, as the essential part of a new transport infrastructure will be oriented to Slovakia mountain parts with assumption of higher requirements for terrain modifications and interferences with the landscape.	Comment addressed to the notification on SD– the assessment of impacts of terrain modifications and interferences with the landscape is included into the paragraphs of the ER dealing with the landscape structure. Detailed assessment of interferences with the landscape, more significantly showed in the Slovakia mountain parts, is carried out within the EIA process.
28. In Chapter III.3.1 (Impacts on rock environment and relief), we suggest to amend the title as follows: „Impacts on rock environment, raw materials and relief“.	Comment addressed to the notification on SD– the assessment of impacts on rock environment and raw materials carried out in the Chapter "Material resources". The assessment of impacts on relief is included into the paragraphs dealing with the landscape structure.
29. In the text of the first sentence, we suggest to add the words " ... and bridges" at the end.	Comment addressed to the notification on SD – accepted.
30. Last but one sentence of Chapter should be amended as follows: „All interferences with the rock environment will be performed on the basis of detailed engineer-geological and hydrogeological exploration realised in accordance with the Act No. 569/2007 Coll. on geological works (Geological Act), as amended by later regulations “.	Comment addressed to the notification on SD – it is common procedure which need not be accentuated at the level of strategic document.



Table continuation

Comment	Explanation
MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálneho hodnotenia a riadenia Váš list číslo/zo dňa Naše číslo 6478/2013 - 3.4/vst Vyhovujúca linka Ing. Laciuk Bratislava 22. 07. 2013	<b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b>
31. It is necessary to accentuate in the Chapter, that impacts on rock environment, raw materials and relief will be significant and they need to be eliminated by effective technical and preventive measures. In the text we suggest to draw attention to possible negative impacts on pollution of the rock environment in consequence of accidents during the construction and operation, including measures for their elimination.	Comment addressed to the notification on SD– the role of environmental report consists in assessing the compliance of strategic documents objectives with defined environmental objectives. At the ER level it is impossible to deal with all details which do not influence in any way a decision-making on transport infrastructure development at the highest level. The application of such approach means that the report would become unintelligible. The requirement is relevant for higher stages of investment preparation.
32. We suggest to add the following: Depending on the character of recognised engineer-geological and hydrogeological conditions a geotechnical monitoring is required.	Comment addressed to the notification on SD– this requirement shall be relevant for higher stages of investment preparation. Providing for a geotechnical monitoring does not affect the decision-making on transport infrastructure development at the highest level.
33. To proceed in extracting of construction raw materials in accordance with conditions of the Act No. 514/2008 Coll. on management of waste from extraction industry and on amendments of some acts.	Comment addressed to the notification on SD– this requirement explicitly results from the Act and it will be taken into account in higher stages of particular project preparation.
34. In Chapter III.3.2 (Impacts on water conditions): it is necessary to supplement the negative impacts on surface waters and groundwaters in consequence of accidents during the construction and operation, including measures for their elimination. In part "Impact on groundwaters" we suggest to state, that depending on the recognised hydrogeological conditions a geotechnical monitoring is required.	Comment addressed to the notification on SD– the same as the explanation to the comment No. 31.
35. When the pollution of groundwaters, soil and rock environment during the process of project implementation has been detected, the procedures established by the Act No. 409/2011 Coll. on some measures in field of environmental burden and on amendments of some acts shall be applied.	Comment addressed to the notification on SD– this requirement explicitly results from the Act and it will be taken into account in higher stages of particular project preparation.
36. In title of Chapter III.3.4 (Impacts on air, climatic factors), we recommend to replace the „climatic factors" for the „climatic conditions".	Comment addressed to the notification on SD – this is accepted in the ER as „Evaluation of impacts on air and factors influencing the climate change".
37. In Chapter III.5 (Impacts on protected areas ...) a description of negative impacts on protected water management areas, water sources and their protection zones, protected deposit areas, etc. is missing, as well as the proposal of measures for mitigation of negative impacts on these areas.	Comment addressed to the notification on SD– the description of impacts is processed in the respective chapters of the ER in the extent corresponding to strategic document character.
38. The text: "In implementing the transport infrastructure projects the protection of mineral wealth in accordance with the Act No. 44/1988 Coll. on protection and use of mineral wealth (Mining Act)" should be added.	Comment addressed to the notification on SD– this requirement explicitly results from the Act and it will be taken into account in higher stages of particular project preparation.

Table continuation

Comment	Explanation
<p>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálneho hodnotenia a riadenia</p> <p>Váš list číslo/zo diela 82...</p> <p>Naše číslo 6478/2013 - 3.4/vst</p> <p>Vyhovujúca linka Ing. Laciuk</p> <p>Bratislava 22. 07. 2013</p>	<p><b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b></p>
<p>With regard to the next assessment process it is necessary to evaluate concretely the expected impacts of the Strategic plan for development of transport infrastructure in Slovak Republic on nature protection interests (protected areas, protected areas species). Among the most significant and monitored protected areas belong the Natura 2000 network areas; therefore the special attention has to be paid to them. Also according to presented graph (in fact the figure) "The network of motorways and expressways in 2020" it is evident that several motorways and expressways interfere with protected areas and some of them very substantially. E.g. proposed interconnection R1 Banská Bystrica - Korytnica represent, from the nature protection point of view, a significant and undesirable interference with the National park Nízke Tatry and into several affected Natura 2000 network areas.</p>	<p>The assessment of Natura 2000 sites has been carried out within the ER and its Annexes and it corresponds to the level of strategic assessment. The assessment has been carried out at level of visions, objectives, measures and cumulative impacts.</p>
<p>If it will be proved in the assessment process, that particular activity (road, railway) will likely to have a significant negative impact on Natura 2000 network areas then it may be implemented only from urgent reasons of higher public interest and there is no other alternative solution, whereby protected areas, unlike the transport infrastructure components, cannot be alternatively situated.</p>	<p>The comment is accepted in the ER.</p>
<p>The Environmental Report should identify at least the essential, more frequent impacts and define respective and possible mitigating measures and/or principles of solution. These include e.g. the collisions of animals with transport means, barrier effect, deposition of unsuitable earth in the sites that are unimportant from the nature protection point of view, consequences of the winter maintenance of roads.</p>	<p>The comment is accepted in the ER.</p>
<p>Road premises shall be an important producer of biomass therefore we recommend to use energetically this renewable source.</p>	<p>The comment is beyond the contents of assessed strategic documents.</p>
<p>Within the „greening" the transport we recommend to pursue systematically and at the science and research level the best known and most frequent impacts on the biota: - animals mortality on roads, influencing of their habitats and migration paths, etc.</p>	<p>The SEA process is governed by the Act No. 24/2006 Coll., the contents of report is defined by the Annex 4. The comment has wider content framework and within the ER there is no space to carry out the science and research activity; however it is necessary to draw from the results of such activity. Parts of the ER dealing with the nature and landscape protection are based on the science knowledge; see the list of used sources.</p>

Table continuation

Comment	Explanation
MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Váš list číslo/zo dňa Sekcia environmentálneho hodnotenia a riadenia Naše číslo 6478/2013 - 3.4/vst Vybavuje/linka Ing. Lazák Bratislava 22. 07. 2013	<b>Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020 - oznámenie – stanovisko</b>
As the output from research we expect proposals of mitigating measures and their application not only on new communications but also on existing collision points.	The SPRDI SR2020 measures include the measures aimed at the greening the transport on existing communications. These measures have been included into the assessment in the ER.
In addition to the impact on protected areas of all categories and on protected species it shall be necessary to assess also the impact on territorial system of ecological stability.	The comment is accepted in the ER.
The transport has significant impact on caves as well. All caves are the natural monuments and they belong among the habitats of European importance. „When during the construction works, geological works or mining activities performed with the mining method the cave is discovered, the natural or legal person who has discovered the cave, shall be obliged to stop the works and immediately inform the nature protection authority about the cave discovery." The issue of reporting of discovered caves is beyond the content framework of the environmental report. (Article 24 paragraph 13 of the Act No. 534/2002 Coll. on nature and landscape protection, as amended by later regulations).	The issue of reporting of discovered caves is beyond the content framework of the environmental report.
From the perspective of interests of the ŠOP SR it will be necessary to assess qualitative the impact of individual concrete transport infrastructure components, which will meet its objectives. The extent of impacts of the Strategic plan for development of transport infrastructure on particular components of environment will depend on defined measures and their localisation in specific environment.	The comment is accepted in the ER.
MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálneho hodnotenia a riadenia Odbor ochrany ovzdušia Naše číslo 3256/2013	Vybavuje/linka Mgr. N. Celárová +421917 604 490 Bratislava 12.07.2013
We support the diversion of transit transport from cities and municipalities to more capacitive road network through which the decrease in production of emissions will be achieved mainly in areas (urbanised areas) exposed to the dust for reason of high traffic burden of environment - air.	The comment is accepted in the ER through the use of criterion for the assessment of impacts on the public health condition.
MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY Sekcia environmentálnych programov a projektov Naše číslo 3256/2013-5.1 36784/2013	Vybavuje/☎ Mgr. Zuzana Fáberová 02 5956 2432 Bratislava 11.7.2013
In relation to your request to send the opinion to submitted material, we have the honour to inform you, that the department of environmental programmes and projects from its competence point of view does not raise any comment to the material.	No comments.

Table continuation

Comment	Explanation
<b>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY</b> <b>Sekcia environmentálnych programov a projektov</b> Naše číslo 3256/2013-5.1 39166/2013	Vybavuje/☎ PhDr. Michalov / +421 2 5956 2202 Bratislava 24.07.2013
Based on your request to send the comments to the material "Strategic plan for development of transport infrastructure in Slovak Republic by 2020" we inform you that the department of environmental programmes and projects from its competence point of view does not raise any comment to submitted material.	No comments.
<b>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY</b> <b>Sekcia environmentálnych programov a projektov</b> Naše číslo 3256/2013-5.1 39166/2013	Vybavuje/☎ PhDr. Michalov / +421 2 5956 2202 Bratislava 24.07.2013
Based on your request to send the comments to the material "Strategic plan for development of transport infrastructure in Slovak Republic by 2020" we inform you that the department of environmental programmes and projects from its competence point of view does not raise any comment to submitted material.	No comments.
<b>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY</b> <b>Sekcia vôd</b> Vaš list číslo/zo dňa 36173/2013 (6476/2013-3.4 ml) 08.07.2013	Naše číslo 37542/2013 (3552/2013-6.1) Vybavuje/linka Bc. Gaľanda +421 2 59343222 Bratislava 16.07.2013
We do not raise any comment to submitted material with regard to the competence of the department of water.	No comments.
<b>Ministerstvo životného prostredia Slovenskej republiky</b> <b>sekcia geológie a prírodných zdrojov</b> Naše číslo k č. 36395/2013	Vybavuje/☎ RNDr. Vrábľová 02/57783224 RNDr. Lipovská, CSc. Bratislava 25.07.2013
Chapter K3.3 Visions and objectives in the road transport sub-Chapter 3.3.4.1 Priority SC4.1: Preventing the rise of black spot sites - we recommend to add the following new point to the text „Ensuring the monitoring and remediation of landslides“.	Accepted.
Sub-Chapter 3.3.4.2 Priority SC4.2: Removal of critical black spots" - we recommend to add the following new point to the text „Ensuring the remediation of landslides“.	Adding of a point is irrelevant. The priority is aimed at the removal of black spots, regardless of their origin.
Chapter 4.5 Measures related to the safety, sub-Chapter 4.5.1.1 Prevention of black spots raise and removal of black spots - we recommend to replace the words in the last sentence .. and removal of landslides" with the words „ and solution of landslides“.	Accepted.

Table continuation

Comment	Explanation
<p>Ministerstvo životného prostredia Slovenskej republiky sekcia geológie a prírodných zdrojov</p> <p style="text-align: right;">Naše číslo k č. 36395/2013</p>	<p style="text-align: right;">Vybavuje/ 寄 RNDr. Vrábľová 02/57783224 RNDr. Lipovská, CSc.</p> <p style="text-align: right;">Bratislava 25.07.2013</p>
<p>Chapter 4.6 Measures related to impacts on environment and population, sub-Chapter 4.6.1.1 Effective designing, building-up the cities and municipalities bypasses - we recommend to amend the first sentence as follows: "When preparing the projects of motorways and expressways, the explorations (engineer-geological, hydrogeological, transport and other), feasibility studies, assessment of impacts on environment and environmental monitoring are necessary to accentuate within the investment preparation in particular in areas, where proposed measures interfere with landslide areas, protected areas and Natura 2000 sites".</p> <p>In the last sentence we suggest do add to the text in brackets (DI, R1, R2, R3,1/64,1/65 , 1/72) the following: "D3".</p>	<p>Not accepted.</p> <p>Explanation: The term "sensitive area" has a broader meaning than the "landslide area". The term "sensitive area" includes not only landslide areas, but also e.g. settled areas with population, which could be affected by the new infrastructure through the noise, pollution, or areas intended for recreation and spa activities, which could be also affected by the planned infrastructure and its operation.</p> <p>Will be added, together with word "e.g." or "for example" as it is concerning examples.</p>
<p>Sub-Chapter 4.6.1.2 Monitoring of environment and anti-noise measures - we recommend to amend the first sentence as follows:</p> <p>„Monitoring of environment is important also in relation to construction and operation of motorways, expressways and the I. class roads and it will serve to definition and localisation of measures necessary for protection of environment components.</p>	<p>Opinion of MDVRR SR to comments on SPRDI SR 2020: We disagree with the adjustment. It is concerning a measure considering infrastructure already built and by which it can be proposed an implementation of additional measures concerning road infrastructure (PHS ecoducts).</p>
<p>Ministerstvo životného prostredia Slovenskej republiky sekcia geológie a prírodných zdrojov</p> <p style="text-align: right;">Vál list číslo/zo dňa 6476/2013-3.4/ml/08.07.2013</p>	<p style="text-align: right;">Naše číslo 36395 /2013</p> <p style="text-align: right;">Vybavuje/ 寄 RNDr. K. Vrábľová 02/ 57783 224 RNDr. A.Hodermanská 02/ 57783 215</p> <p style="text-align: right;">Bratislava 16.07.2013</p>
<p>The submitted material is processed under § 5 paragraph 5 of Act No. 24/2006 on the assessment of environmental impacts and amending of some Acts (the "Act"). The content and the structure of the strategic document corresponds with the Annex 2 of the Act. We present you with following observations and recommendations:</p>	<p>Comments and recommendations from the relevant letter from the section of MŽP were taken into the summary opinion of the MŽP on the Notification on SPRDI SR 2020 No. 6476/2013-3.4 ml of 22.07.2013. The summary opinion is present at the beginning of the table. Taken opinions, observations (and their evaluation) from the letter No. 36395/2013 from the Section of geology and natural resources are included in the list of comments No. 23 to 38.</p>



Table continuation

Comment	Explanation
<p><b>MINISTERSTVO ŽIVOTNÉHO PROSTREDIA SLOVENSKEJ REPUBLIKY</b> Sekcia ochrany prírody a tvorby krajiny Námestie Ľudovíta Štúra 1, 812 35 Bratislava</p>	<p>Váš list číslo/zo dňa: 6476/2013-3.4/ml Naše číslo: 6517/2013-2.2 Vybavuje: Vrlanská/2311 Bratislava 22.7.2013 Šimofáková/2357</p>
<p>- in Chapter 2.7 Induced investment - To classify also the investment relating to compensation measures taken in the context of satisfying the conditions of the Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora in the "Induced investment";</p>	<p>Comment addressed to the SD – it is not solvable within the ES; elaborators of the ER accept the comment.</p>
<p>- for the early identification of risks resulting from the process of assessment of impacts on environment and assessment of impacts of transport infrastructure projects on Nature 2000 sites (including definition of compensating and mitigating measures), and in relation to previous comment, we recommend to include into the documentation of constructions resulting from projects referred to in the strategy also so-called feasibility study, which should be a background for early identification of risks resulting from the process of assessment of impacts on environment and assessment of impacts of transport infrastructure projects on Nature 2000 sites, including definition of compensating and mitigating measures;</p>	<p>Comment addressed to the SD – it is accepted in the ER. The requirement for feasibility studies is mentioned in the ER recommendations for the next procedure of pre-investment preparation of transport constructions.</p>
<p>- with regard to the text in Chapter 3.7, paragraph 3 on animals mortality on the roads and railway lines we suggest to pay attention in presented material also to the elaboration of an initial study identifying suitable points for building-up the ecoducts on by the strategy recommended as well as existing motorways and expressways;</p>	<p>SPRDI SR 2020 and SPRVOND SR 2020 are documents of a strategy importance with nationwide and international impact. The context of their strategic environmental assessment is at the level of measures consisting of identified territorial sectors representing the particular components of transport systems (e. g. motorway sections among intersection nodes of motorways or expressways). The identification of points suitable for building the ecoducts on by the strategy recommended as well as existing motorways and expressways shall be an issue of knowledge at the local project level. SPRDI SR 2020 include "Measures concerning the impacts on environment and population" the subject of which is also the monitoring usable for the preparation of projects and ecoducts. The strategy does not include the particular projects.</p>

## Environmental Report

## Table continuation

Comment	Explanation
<div> <div> <b>MINISTERSTVO HOSPODÁRSTVA SLOVENSKEJ REPUBLIKY</b>  Mierová 19, 827 15 Bratislava </div> <div> Váš list značka 18810/2013/B340-SOPD/39325 </div> <div> zo dňa 18.06.2013 </div> <div> Naša značka 2041/2013-1100 </div> <div> Vybavuje Ing. Klementová </div> <div> Bratislava 25.07.2013 </div> <div> <b>Stanovisko k materiálu:</b>  „Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020“ </div> </div>	
1. The Notification on the Strategy document (hereinafter referred to as the "Notification") on p. 5 Strategy documents and policies of SR, we recommend to fix the bullet "Transport Policy of SR until 2020" to "2015".	Comment addressed to the notification on SD - accepted.
2. to Part 6. of Notification and to the material itself (currently at the stage of inter-ministerial review):  we recommend to pay attention to the dates of construction of motorways and expressways, as well as their maintenance. Development of road infrastructure and its current status in terms of needs and development of the automotive industry, we consider as insufficient in view of current investors operating in Slovakia, but also for the possible influx of further investment and uniformly spread on the territory of our country. Accordingly, the submitted material is unambitious. The area of road infrastructure development is considered crucial for further development, sustainability and competitiveness of the automotive industry in Slovakia.	Dates of construction and modernisation of transport infrastructure mentioned in document result mostly from the prepared project documentation under of structures, legal deadlines and procurement, as well as from financial possibilities of the state budget.
3. To the material itself, we apply comments that have been applied also within the interdepartmental comment procedure to this strategic document and which we ask to be implemented into the material: <ul style="list-style-type: none"> <li>The document does not include the building of charging stations for alternative engines under the Europe 2020 objectives,</li> <li>The does not include an outline of a system for the use of alternative fuels and its infrastructure according to the White Paper.</li> </ul>	Despite the fact that that issue is not the in responsibility of MDVRR SR, the MDVRR SR will address the mentioned issue in the strategic document on the basis of negotiations with the Ministry of Economy.  In terms of its focus, SD do not consider other partial issues of transport policy, for example the use of alternative engines and fuels in the transport process. These topics are addressed at a higher hierarchical level in the Transport Policy of SR until 2015 and are further elaborated through separate strategic documents. The greening of transport is the subject of SRVOND SR 2020.
<div> <div> <b>MINISTERSTVO OBRANY SLOVENSKEJ REPUBLIKY</b>  sekcia ekonomiky  národný riaditeľ pre infraštruktúru  Kutuzovova 8  832 47 Bratislava </div> <div> Váš list číslo/zo dňa 18810/2013/B340-SOPD/39325 </div> <div> Naše číslo SEEK/NRpl-14-10/2013 </div> <div> Vybavuje/ tel. Ing. Bajner / 313322 </div> </div>	
The Ministry of Defence of the Slovak Republic, as the competent authority according to Article 6 paragraph 2 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations, does not raise any comment.	No comments.

Table continuation


Comment	Explanation
<p><b>Ministerstvo kultúry Slovenskej republiky</b>  sekcia kultúrneho dedičstva  Námestie SNP 33, 813 31 Bratislava 1</p> <p>Váš list číslo/zo dňa: 18810/2013/B340-SOPD/39325  Naše číslo: MK- 2578/2013-110/12284  Vybavuje/linka: JUDr. L. Vodička  kl. 471  Bratislava: 16.07.2013</p>	
<p>After examining the documents submitted, the Ministry proposes to amend the section 3.8 Impacts on population, urban environment, with a note: Spatial development of transport infrastructure will take into account the conditions of protection of cultural heritage as they result from legislative framework adopted by the Slovak Republic.</p>	<p>Within the ER, the problem of the conservation of monuments is processed and evaluated in a separate chapter, accepting legislative amendments adopted in the Slovak Republic.</p>
<p> <b>Ministerstvo financií Slovenskej republiky</b>  Sekcia rozpočtovej politiky  Štefanovičova 5  817 82 Bratislava 15</p> <p>Vaše číslo / zo dňa: 18810/2013/B340-SOPD/39325/18.6.2013  Naše číslo: MF/17787/2013-411  Vybavuje / tel.: Šušková/59582338  Bratislava: 15.7.2013</p>	
<p>Following the information on the Notification No. 18810/2013/B340-SOPD/39325 of 18 June 2013 on the strategic document that is subject to screening under § 7 of Act. 24/2006 Coll. on the assessment of impacts on the environment and on amendment on some Acts, as amended, we inform you that we have no comments.</p>	<p>No comments.</p>
<p><b>MINISTERSTVO POĎOHOŠPODÁRSTVA A RÓZVOJA VIDIEKY SLOVENSKEJ REPUBLIKY</b>  Dobrovičova 12, 812 66 Bratislava 1  Sekcia rozvoja vidieka</p> <p>Váš list číslo: 18810/2013/B340-SOPD/39325  naše číslo: 19729/2013  vybavuje/tel.: MIKLOVIČ/501  Bratislava: 17. 07. 2013</p>	
<p>The Ministry of Agriculture, Environment and rural development of the Slovak Republic does not raise any comment to the assessment scope of the strategic document with nationwide impact "Strategic plan for development of the transport infrastructure in Slovak Republic by 2020".</p>	<p>No comments.</p>
<p><b>Ministerstvo práce, sociálnych vecí a rodiny Slovenskej republiky</b>  Vedúci služobného úradu  Špitálska 4, 6, 8, 816 43 Bratislava 1</p> <p>Vaše číslo/zo dňa: 18810/2013/B340-SOPD/39325  18.6.2013  Naše číslo: 31305/2013  4898/2013-M_VSD  Vybavuje/tel.: Čerešňáková/2335  Bratislava: 15.7.2013</p>	
<p>Subject: 'Strategic plan for the development of transport infrastructure in Slovak Republic by 2020' - the answer  Based on your letter dated 18/06/2013 we inform you that we note the submitted document.</p>	<p>No comments.</p>

Table continuation

Comment	Explanation
<b>MINISTERSTVO VNÚTRA SLOVENSKEJ REPUBLIKY</b> sekcia hnuteľného a nehnuteľného majetku Košická 47, 812 72 BRATISLAVA Váš list číslo/zo dňa 18810/2013/B340- SOPD/39325 / 18.6.2013	Naše číslo SHNVA-00-2013/00153-025 Vytvára Kukuřka/54142 Bratislava 11. júla 2013
<p>The Ministry of Transport, Construction and Regional Development of the Slovak Republic, Section of the Operational Programme Transport, Department of Programming and Monitoring of Transport Infrastructure sent letter No.: 18810/2013/B340-SOPD/39325 of 18.06.2013 an information on the publication of the Notification along with the request for an opinion on the strategic document with a nationwide scope "Strategic Plan for the Development of Transport Infrastructure in Slovak Republic by 2020".</p> <p>The Ministry of Interior of the Slovak Republic hereby notifies you that it does not apply any comments on the relevant Notification.</p>	No comments.
<b>MINISTERSTVO ZAHRANIČNÝCH VECÍ A EURÓPSKÝCH ZÁLEŽITOSTÍ SLOVENSKEJ REPUBLIKY</b> Andrea Elscheková-Matisová generálna riaditeľka Sekcia európskych záležitostí Bratislava 23.7. 2013 Číslo: 482.144/2013-EUPO	
<p>The Ministry of Foreign and European Affairs of the Slovak Republic has no comments on the contents of the document. The date of submission of the strategic document to the Government in December 2013, is however, in view of the planned submission Partnership Agreement and Operational programmes and of the Slovak Republic's intention to start drawing European funds from 1 January 2014, is considered as late.</p>	Noted.
<b>ŠTÁTNÁ OCHRANA PRÍRODY SLOVENSKEJ REPUBLIKY</b> Tajovského 28 B, 974 01 Banská Bystrica Váš list číslo/zo dňa 6517/2013-2.2 / 11. 7. 2013 Naše číslo ŠOP SR / 2602/2013 Vybavuje Ing. Čumová Banská Bystrica 18. 7. 2013	
<p>With regard to the next assessment process it is necessary to evaluate concretely the expected impacts of the Strategic plan for development of transport infrastructure in Slovak Republic on nature protection interests (protected areas, protected species). Among the most significant and monitored protected areas belong the Natura 2000 network areas; therefore the special attention has to be paid to them. Also according to presented graph (in fact the figure) "The network of motorways and expressways in 2020" it is evident that several motorways and expressways interfere with protected areas and some of them very substantially. E.g. proposed interconnection R1 Banská Bystrica - Korytnica represent, from the nature protection point of view, a significant and undesirable interference with the National park Nízke Tatry and into several affected Natura 2000 network areas.</p>	<p>The assessment of Natura 2000 sites has been carried out within the ER and its Annexes and it corresponds to the level of strategic assessment. The assessment has been carried out at a level of visions, objectives, measures and cumulative impacts, including the pertracted expressway R1.</p>

Table continuation

Comment	Explanation
<p>ŠTÁTNA OCHRANA PRÍRODY SLOVENSKEJ REPUBLIKY Tajovského 20 B, 974 01 Banská Bystrica</p> <p>Váš list číslo/zo dňa 6517/2013-2.2 / 11. 7. 2013</p> <p>Naše číslo ŠOP SR / 2802/2013</p> <p>Vybavuje Ing. Čumová</p> <p>Banská Bystrica 18. 7. 2013</p>	
If it will be proved in the assessment process, that particular activity (road, railway) will likely to have a significant negative impact on Natura 2000 network sites then it may be implemented only from urgent reasons of higher public interest and there is no other alternative solution, whereby protected areas, unlike the transport infrastructure components, cannot be alternatively situated.	The comment is accepted in the ER.
The environmental report should identify at least the essential, more frequent impacts and define respective and possible mitigating measures and/or principles of solution. These include e.g. the collisions of animals with transport means, barrier effect, deposition of unsuitable earth in the sites that are unimportant from the nature protection point of view, consequences of the winter maintenance of roads.	The comment is accepted in the ER.
Road premises shall be an important producer of biomass therefore we recommend to use energetically this renewable source.	The comment is beyond the contents of assessed strategic documents.
<p>Within the „greening“ the transport we recommend to pursue systematically and at the science and research level the best known and most frequent impacts on the biota:</p> <ul style="list-style-type: none"> <li>- animals mortality on roads, influencing of their habitats and migration paths, etc.</li> <li>- issue of penetration of new non-original species into environment (invasive species).</li> </ul>	The SEA process is governed by the Act No. 24/2006 Coll., the contents of report is defined by the Annex 4. The comment has wider content framework and within the ER there is no space to carry out the science and research activity; however it is necessary to draw from the results of such activity. Parts of the ER dealing with the nature and landscape protection are based on the science knowledge; see the list of used sources.
As the output from research we expect proposals of mitigating measures and their application not only on new communications but also on existing collision points.	The SPRDI SR2020 measures include the measures aimed at the greening the transport on existing communications.
In addition to the impact on protected areas of all categories and on protected species it shall be necessary to assess also the impact on territorial system of ecological stability.	The comment is accepted in the ER.
The transport has significant impact on caves as well. All caves are the natural monuments and they belong among the habitats of European importance Sk 8 not accessible cave formations. „When during the construction works, geological works or mining activities or activities performed with the mining method the cave is discovered, the natural or legal person who has discovered the cave, shall be obliged to stop the works and immediately inform the nature protection authority about the cave discovery.“ (Article 24 paragraph 13 of the Act No. 534/2002 Coll. on nature and landscape protection, as amended by later regulations).	The issue of reporting of discovered caves is beyond the content framework of the environmental report.



Table continuation


Comment	Explanation
<p>ŠTÁTNÁ OCHRANA PRÍRODY SLOVENSKEJ REPUBLIKY          Tajovského 20 B, 974 01 Banská Bystrica</p> <p>Náše číslo          ŠOP SR / 2802/2013</p> <p>Vybavuje          Ing. Čumová</p> <p>Banská Bystrica          18. 7. 2013</p>	<p>Váš list číslo/zo dňa          6517/2013-2.2 / 11. 7. 2013</p>
<p>From the perspective of interests of the ŠOP SR it will be necessary to assess qualitative the impact of individual concrete transport infrastructure components, which will meet its objectives. The extent of impacts of the Strategic plan for development of transport infrastructure on particular components of environment will depend on defined measures and their localisation in concrete environment.</p>	<p>The environmental report includes the measures for mitigating of adverse impacts of the transport infrastructure development in the Slovak Republic on particular components of environment and they correspond to the strategic environmental level.</p>
 <p>ŽILINSKÝ          samosprávny kraj          odbor dopravy a          regionálneho rozvoja</p> <p>Váš list číslo/zo dňa          18810/2013/B340-SOPD/39325</p> <p>Náše číslo          4563/2013/ODaRR-002</p> <p>Vybavuje          Ing. Náhlíková</p> <p>Žilina          21.07.2013</p>	
<p>The Žilina self-governing region is in the "Map of planned interferences with the public passenger transport" include in the Central-North region. We draw the attention to the fact, that in the meaning of the binding part of Amendments No I of the Concept of Slovakia territorial development 2001, binding regulator No. 11.1.3 ... to stabilize the basic zoning of the Slovak Republic in the territories of north-west Slovakia and Žilina - Martin transport-gravitation core" the affected region is designed as the north-west Slovakia. Based on abovementioned we request to refer the Žilina self-governing region in connection with transport and territorial - planning aspects as a part of the region of north-west Slovakia.</p>	<p>The referred binding regulator of KURS 2011 has been applied in the ER.</p>
<p>A new proposal for the TEN-T network is preparing currently; within it the new transport corridors are proposed also in the Slovak territory. Based on abovementioned we request to assess in the assessment process of the Strategic plan for development of transport infrastructure in Slovak Republic by 2020, the impact on new-proposed TEN-T network on environment of Slovakia and to take into account international aspects.</p>	<p>A consideration of the aspects of new-proposed TEN-T network on environment of Slovakia in international context is a part of the ER.</p>

Table continuation


Comment	Explanation
<p><b>PREŠOVSKÝ SAMOSPRÁVNÝ KRAJ</b> Námestie mieru 2, 080 01 Prešov</p> <p><b>Odbor dopravy</b></p> <p>Náše číslo: 4071/2013/OD-002</p> <p>Vybavuje/linka: Ing. Galajda/0517081773</p> <p>Prešov: 11.07.2013</p>	
<p>The Office of Prešov self-governing region, Department of transport has elaborated the Action plan for preparation of programming period 2014 - 2020, Objective 5 - Strategic plan for development of public passenger transport at the level of State, self-governing region and cities; this plan has been sent to MDVRR SR and incorporated into Sectoral analysis of public passenger transport. At the Ú-PSK level, this analysis includes also the list of project charters concerning the energetic audit of the fleet, demonstration/investment projects for increase in energetic efficiency through the use of renewable resources, sustainable ecological management (with provable improved balance of CO2 collecting in particular territory in comparison with previous status); these will be further processed in the imminent period. In developing the projects relating to the building-up and upgrading the infrastructure by 2020 for the railway, road, inland waterway and intermodal transport, as well as public passenger transport, also respective impact on environment and health will be taken into account.</p>	<p>Comment</p>
<p><b>ÚRAD KOŠICKÉHO SAMOSPRÁVNÉHO KRAJA</b> Námestie Maratónu mieru 1, 042 66 Košice</p> <p><b>odbor dopravy</b></p> <p>Váš list č./zo dňa: 18810/2013/B340 SOPD39325 18.06.2013</p> <p>Náše číslo: 3394/2013/OD-<i>2009</i></p> <p>Vybavuje/linka: Ing. Bartková/7268253</p> <p>Košice: 22.07.2013</p>	
<p>We request to respect the superior land use planning documents, i.e. Amendments of ÚPN VUC Košice region, approved by the Representation of Košice self-governing region in 2009.</p>	<p>A land use planning documentation of nationwide importance, i.e. a binding part of KURS 2011 taken into account in the environmental report, is equivalent to the context of assessed strategic document.</p>
<p>Planned constructions and activities subject to the assessment of impacts on environment in accordance with the Annex 8 of the Act No. 24/2006 Coll. on assessment of environmental impacts and on amendment of some Acts, as amended by later regulations, will be separately assessed according to this Act.</p>	<p>The requirement results explicitly from the Act.</p>
<p> <b>Úrad Nitrianskeho samosprávneho kraja</b> Rázusova 2A, 949 01 NITRA</p> <p>Váš list číslo/zo dňa: 18810/2013/B340-SOPD/39325</p> <p>Náše číslo: CS 3534/2013, CZ 20465/2013</p> <p>Vybavuje/linka: Ing. Vyboch/0374930368</p> <p>Nitra: 22.07.2013</p>	
<p>We agree with submitted draft of the "Strategic Plan for Development of Transport Infrastructure in SR by 2020" without any comments.</p>	<p>No comments.</p>

Table continuation



Comment	Explanation
 <b>TRNAVSKÝ SAMOSPRÁVNÝ KRAJ</b> SEKcia HOSPODÁRSKEJ STRATÉGIE P.O. BOX 128, Starohájska 10, 917 01 Trnava <small>Váš list číslo/zo dňa: 18810/2013/B340-SOPD /39325/18.06.2013</small> <small>Náše číslo: 05614/2013/ODP-001</small> <small>Vybavuje/linka: Ing. Lančarič/541</small> <small>Trnava: 19.07.2013</small>	
After studying the submitted comprehensive strategic document with a nationwide scope "Strategic Plan for the Development of Transport Infrastructure in SR by 2020", the Trnava self-governing region, as the owner of II. and III. class roads, accepts the document without any comments.	No comments.
 <b>BANSKOBYSTRICKÝ SAMOSPRÁVNÝ KRAJ</b> ODBOR REGIONÁLNEHO ROZVOJA <small>Váš list číslo/zo dňa: 18810/2013/B340-SOPD /39325</small> <small>Náše číslo: 7140/2013/ODDUPZP-002 /27831/2013</small> <small>Vybavuje/linka: Ing. Kubinec/ 0484325120</small> <small>Banská Bystrica: 22. júla 2013</small>	
In part containing the relationship to other strategic documents, we consider, from the land use planning point of view, as essential the consistent assessment of the "Strategic plan for development of transport infrastructure of the Slovak Republic by 2020 in comparison to the land use plan "Concept of territory development of Slovakia 2001, 2011" with regard to the determination whether the amendments are necessary. In view of applying the Decree of the Ministry of Environment of the Slovak Republic No. 55/2001 Coll. on land use planning supporting documents and land use planning documentation, the KURS 2011 does not address the details which are the subject-matter of the strategic plan. This fact should be assessed also in relation to land use plans of regions.	The assessment of KURS 2011 in comparison with the SPRDI SR 2020 with regard to its updating is not the subject matter of the environmental report. SPRDI SR 2020 is open and approved document and the reason for its possible updating may arise after evaluation thereof from the determining impetuses and events points of view.
In the reference to other strategic documents we suggest to cite more precisely the Concept of combined transport development, Development of public passenger transport, particular sectoral analyses. From submitted screening is not apparent in which extent the strategic objectives of adopted National strategy of cycling development will be satisfied.	The environmental report includes relevant sections dealing with an intermodal, public passenger and non-motorised transport which are presented in strategic documents and sectoral analyses. A cycling is assessed as a part of strategic document measures and projects.
We recommend to assess a timeliness of the Resolution of the Government of the Slovak Republic No. 149/2010 to the EU Strategy for Danube region (Resolution No. 229 of 30.3.2011, with regard to the extent in which it affects the self-governing regions, as well as timeliness of the Resolution of the Government of the Slovak Republic No. 642/2009.	The comment is beyond the contents and competence of the ER.
In terms of the Banská Bystrica self-governing region, we consider for priority to pay attention to the preparation and building-up of expressways, in particular the completion of R1 expressway Trnava - Nitra - Žarnovica - Žiar nad Hronom - Zvolen - Banská Bystrica - Ružomberok, the R2 expressway Trenčín križovatka D1 - Prievidza - Žiar nad Hronom - Zvolen – Lučenec - Rimavská Sobota - Rožňava - Košice.	Relevant projects are parts of the SPRDI SR 2020; within the ER the strategic environmental assessment has been carried out.

Table continuation

Comment	Explanation
<p><b>BANSKOBYSSTRICKÝ SAMOSPRÁVNÝ KRAJ</b>  <b>ODBOR REGIONÁLNEHO ROZVOJA</b></p> <p>Vaš list číslo 2013/002  188102013/0340-SOPD  38325</p> <p>Návrh číslo  71402013/0002P2P-002  27891/2013</p> <p>Vybavuje/inka  Ing. Kubinec/ 0484325120</p> <p>Banská Bystrica  22. júla 2013</p>	
In the territory of Banská Bystrica region to assess the options for north-south interconnection of Baltic - Adriatic development areas.	The comment does not state the reason of the proposal for re-routing the north-south axis Baltic - Adriatic to the Banská Bystrica region territory. Baltic - Adriatic interconnection is a part of the proposal for multimodal corridors of the core TEN-T network; the projects of Slovakia transport infrastructure incorporated in the proposal for TEN-T network have been included into the strategic environmental assessment.
To update the intentions in the field of combined transport (building-up the public terminal of combined transport Zvolen - Budča).	SPRDI SR 2020 includes the proposal for the network of core public intermodal transport terminals; also the terminal in Zvolen-Budča will be perspective part of the network.
According to original proposals of land use plans for particular regions from 1998, e.g. the construction of high-speed railway line in the territory of Banská Bystrica region has been considered. It will be also necessary to ask the question in relation to requirements (parameters) and to EU countries, what intends the Slovak Republic in this fields (advantages of such lines constructions have been more times presented). We recommend to submit a separate information report to the session of the Government of the Slovak Republic.	A requirement (to submit a separate information report to the session of the Government of the Slovak Republic) is beyond the competence of the ER; routing of prepared high speed railway lines state in the proposal for TEN-T network does not consider with the Slovakia engagement in this system.
In Part 1.2 Water of the strategic document it is necessary to state those routings of roads, where the endangerment of drinking water sources might arise. To state those documents which are mandatory for the Slovak Republic within its membership in EU and which have been transposed at the national level in the meaning of the Framework Directive on Water, e.g. Water plan of the Slovak Republic and the binding part thereof (water management protected areas, protection zones of drinking water sources as well as protection zones of natural healing sources).	The evaluation of the endangerment of drinking, mineral and healing water sources, the interferences with the protection zones of sources and the water management protected areas is a part of strategic assessment of transport infrastructure projects.
In point 1.3 Raw materials - The raw material policy is approved at the State level; it includes also the balance reserves. In our opinion it is possible to refer to this document in the next procedure (without detailed instantiation which shall be performed at the).	Updated raw material policy of the Slovak Republic for the mineral raw materials, approved by the Resolution of the Government of the Slovak Republic No. 722/2004 is incorporated into the process of the environmental report development.
In accordance with the provision stated in p. 8, point 2.1, we recommend in the next procedure to specify transport communications (and their identification) which subject to international conventions and constitute the part of TEN-T.	The environmental report deals with transport infrastructure integrated in currently legally valid TEN-T network and transport infrastructure proposed for integration in prepared core and comprehensive TEN-T network.
Based on actual experience from implementation of particular projects to specify only those sections of roads of II. and III. class, which may be affected by construction and which will be used in the framework of construction. To assess possible such roads burden (damage prevention) as well as adverse impacts on population and core settlement areas. To negotiate this fact also with the manager of such communications.	The environmental report deals also with impacts which are temporary and are connected with the period of the infrastructure construction. Detailed assessment of the of burden roads used for construction transport during the period of building-up belongs to the process at the EIA level. The requirement "to negotiate this fact also with the manager of such communications" is not appropriate within the SEA process.

Table continuation

Comment	Explanation
<b>BANSKOBYSTRICKÝ SAMOSPRÁVNÝ KRAJ</b> <b>ODBOR REGIONÁLNEHO ROZVOJA</b> <small>Vaš list číslo 08a 188102013/6340-SOPD .39325</small> <small>Název číslo 71402013/00DUP2P-002 27631/2013</small>	<small>Výbavuje/finka Ing. Kubinec/ 0484325120</small> <small>Banská Bystrica 22. júla 2013</small>
<p>In Part 2.7. Induced investment, we request to state the Act No. 49/2002 Coll. on protection of monument fund as amended by later regulations (providing for the protection of archaeological sites, to inform the Archaeological Institute SAV, Nitra in negotiating in next procedure).</p>	<p>Cultural monuments and monument areas which are subject of protection under Act No. 49/2002 Coll. on protection of monuments fund, as amended by later regulations, are included in the Environmental Report in separate field of assessment Chapter "Cultural heritage". Requirement "to inform the Archaeological Institute SAV, Nitra in negotiating in next procedure" is not appropriate within the SEA process.</p>
<p>In Part 3.7., impacts on fauna, flora and habitats shall be negotiated with professional institutions, State protection of nature of the Slovak Republic. In proposing the bio-corridors the latest experience and knowledge of EU countries shall be applied. A special attention shall be paid to wild animals classified in game category and proposed measures shall be negotiated with competent central institution representing the hunters associations.</p>	<p>Within the ER and its Annexes the assessment of impacts on the Natura 2000 sites, National system of protected areas, TSES, adequate to strategic assessment level has been carried out. The assessment has been carried out at level of visions, objectives, measures and cumulative impacts.</p>
<p>In Part 3.8. Impacts on population, urbanised environment. In case that KURS 2001, KURS 2011 are referred, it is necessary to state in the text, at least once, the respective Regulation of the Government of the Slovak Republic declaring the binding part of the Concept of Slovakia territorial development. In case that a polycentric settlement system - with the reference to KURS- and the ESPON at the European context are referred, it is necessary to whether the fault occurred, as the ESPON represent the programme and polycentric system at the European level is defined by European Spatial Development Perspective (May, 1999, ESDP). Within the KURS the following terms are used: settlement core areas, core settlement areas and development axes. The usage of the term „Functional urban areas (FUA)" should be agreed with the competent Ministry department so as the different interpretation did not appear.</p>	<p>Strategic environmental assessment of measures related to the transport services of settlement territory is carried out in cross-border context and within the meaning of the binding part of ESDP and ESPON process (FUA, MEGA). Mutual compatibility of terms settlement core areas - MEGA, FUA is documented in the by MVRR SR material "Polycentric settlement system as instrument for ensuring the functional complexity at regional and local level". Abovementioned material has been used concurrently to identification of potential (gravity model) and existing (commuting) settlement links at sub-regional agglomeration level of polycentric systems within the assessment of measures concerning the public passenger transport.</p>
<p>In Part 6. Possible risks relating to the implementation of strategic material. It is necessary to use terms as balanced regional development, unemployment rate, territory accessibility and transport services than to introduce the terms as lobbying, region exceptionality. We request to re-style such formulated risks.</p>	<p>Lobbying is a part of a practical public life in the EU States, USA and also in Slovakia. It is the method of enforcing the interests of certain groups and such method holds its irredeemable position also in the Slovak Republic. The objective thereof shall be to influence decision-making of public authorities and the process preceding the decision-making. In Slovakia the legal arrangement of lobbying does not exist, however the code of criminal procedure unambiguously defines what is prohibited. From this reason it is legitimately to speak about lobbying as about the risk factor of applying the project plan of strategic document. Professional literature states, that region possess some internally coded properties preventing from development of their competitiveness. More reputable authors speak about such internally coded properties as about the "region culture". An environmental assessment of the strategic document takes into account of these aspects in relation to the explanation of the role and contribution of the transport infrastructure to the underdeveloped regions development.</p>



Table continuation





Comment	Explanation
 <p><b>Bratislavský samosprávny kraj</b></p> <p>Náša zn. 8873/2013 Vaša zn. 18810/2013/B340-SOPD/39325 Vybavuje Ing. K. Staníkovi Telefón 48284 612 Dátum 22.07.2013</p>	
<p>After familiarisation with the notification, Bratislava self-governing region request to include all regional and supraregional proposals in BSK territory related to the transport infrastructure (according to the proposal of ÚPN R BSK) into the strategic document and the report within the meaning of the Act No. 24/2006 Coll. on assessment of environmental impacts.</p>	<p>Regional and supraregional proposals in BSK territory concerning the transport infrastructure (according to ÚPN R BSK proposal), which have been parts of assessed strategic documents, were incorporated into the environmental report.</p>
 <p>Váš list č./zo dňa 18810/2013/B340 -SOPD/39325 18.06.2013 Naše číslo 65416/2013/Oúř/Vá Vybavuje/linka Ing. arch. Vojtaššáková/ 716 72 74 Poprad 22. júl 2013</p>	
<p>As an affected city, we do not have any comments to the submitted strategic document with a nationwide scope "SPRDI SR 2020".</p>	<p>No comments.</p>
 <p><b>-Asociácia odborových zväzov dopravy, pošt a telekomunikácií</b> Vajnorská 1, 815 70 Bratislava</p> <p>Náša značka 20/2013-A Vybavuje/linka Poliaková/20295008 Bratislava 19.07.2013</p>	
<p>Association of Unions of Transport, Posts and Telecommunications have no comments regarding the submitted document.</p>	<p>No comments.</p>
 <p><b>Mesto Zlaté Moravce</b> Mestský úrad, Ul. 1. mája 2, 953 01 Zlaté Moravce</p> <p>Váš list/zo dňa 18810/2013/B340-SOPD/39325 Naša značka 19348/2671/2013-výst. Vybavuje/linka Bor/037/6923915 Zlaté Moravce 22. júla 2013</p>	
<p>Based on your written request to the document "Strategic Plan for the Development of Transport Infrastructure in Slovak Republic by 2020" within the meaning of the Act No. 24/2006 Coll. on assessment of the environmental impacts and amendment of certain Acts as amended in, the city of Zlaté Moravce does not have any suggestions or comments to the document.</p>	<p>No comments.</p>

Table continuation

Comment	Explanation
<b>O B E C Závadka nad Hronom</b> Č.j. 627/2013 Osloboditeľov 27, PSČ 976 67, okres Brezno Vybavuje : Ján Tešlár/Ing.Lilková tel.048 6183 104 V Závadke nad Hronom, 15.07.2013 <small>Tel./Fax 048 6183 104 / 0482183 149, prechodnens@zavodnec.sk</small>	
The municipality of Závadka nad Hronom, represented by the by chairman Ján Tešlár, based on your request of 11.07.2013, is sending you following opinion to the strategic document within the meaning of § 6, par. 6 of Act No.24/2006 Coll. on the assessment of impacts on the environment and on amendments to certain Acts, as amended. Individual chapters of the document are not considering further development of transport infrastructure within the cadastral area of our municipality. For this reason, we have no comments on the document.	No comments.
<b>ÚNIA DOPRAVY, POŠT A TELEKOMUNIKÁCIÍ</b> <b>SLOVENSKEJ REPUBLIKY</b> <small>Barová 2, 821 08 Bratislava</small>	Bratislava 16. júla 2013 Naša zn.Kor.10/2013/GT/145
The submitted material is processed at a high professional level and is based on expert advice and practical experiences from the past and respects the national and European legislation. It has its explanatory power reflecting the real possibilities and aims for the specified period.	No comments.
<b>Owners of residential and non-residential spaces, Rovniankova 14, 851 02 Bratislava</b>	
We request to be informed about concrete projects, intentions, programmes and interventions assessed within the strategic document and mentioned and indicated in notification on strategic plan assessment and in its Annexes.	Within the Annex to the Strategic plan, there are projects and project charters that are planned or prepared by subjects responsible for the major part of public passenger transport in Slovakia. In particular, it is concerning ŽSR, VÚC, cities with over 70 thousand inhabitants and their transport companies. The list of projects and project charters is based on the data provided by mentioned institutions and companies, whereby the projects and project charters were subsequently evaluated in terms of compliance with those strategy measures. The Ministry of Transport, Construction and Regional Development does not currently possess specific projects in terms of project documentation, whereas the preparedness of projects is at the level of project plans or charters. For the subject project charters, it is primarily necessary to develop appropriate project documentation. For each project charter it is possible to get specific documents from relevant institutions and bodies, which will be holders of the projects and project charters. In terms of the strategic plan, all documents are available on the website of the Ministry of Transport, Construction and Regional Development of the Slovak Republic.

Table continuation

Comment	Explanation
<b>Owners of residential and non-residential spaces, Rovniankova 14, 851 02 Bratislava</b>	
<p>We request to follow consistently the all condition, conclusions and requirements stated by the MŽP SR in its final opinion No. 38/06-7.3/ml of 6. 7. 2006.</p>	<p>Within the implementation of the project, which had the final opinion No. 38/06-7.3/ml of 6. 7. 2006 (Core mass urban transport system, operational section Janíkov dvor - Šafárikovo námestie in Bratislava) issued by the Ministry of the Environment, all conditions, conclusions and requirements were and will be incorporated into subsequent stages of project documentation.</p> <p>In the first part of the project "Core mass urban transport system, operational section Janíkov dvor - Šafárikovo námestie, 1<sup>st</sup> Part Šafárikovo námestie - Bosákova ulica", to which a relevant final opinion was issued, it is not a project charter anymore, because the project is currently being implemented. Valid planning permission and a building permit was issued for the relevant project. In the second part of the project "Core mass urban transport system, operational section Janíkov dvor - Šafárikovo námestie, 2<sup>nd</sup> Part Bosákova ulica - Janíkov dvor", to which a relevant final opinion was issued, the project preparation for planning permission is not yet completed. According to the valid legislation, within all permitting processes all interested parties will be invited and the public will be informed about the process in accordance with applicable legislation.</p>
<p>With regard to the relevant line construction of the B2 road communication, we request to carry out the assessment of impacts on environment according to Article 30 etc. of the Act on assessment of environmental impacts, with the final opinion pursuant to Article 37 of this Act.</p>	<p>The environmental report to the strategic document deals with assessment of impacts at the level corresponding to strategic parameters of the transport system. So, it is an assessment of suitability for the use of transport modes within the spatial context, the variants of territorial corridors eventually of their combination. Strategic assessment deals, within discussed issue, with the transport system of the city Bratislava as a complex system in which the prepared project of the tram way construction has a function of carrier system. The environmental assessment of integrated transport system of the city has provided a positive result with recommendation for the implementation. Partial projects/constructions being part of tram way construction subject to the assessment at the level of details corresponding to the EIA process.</p>
<p style="text-align: right;">Bratislava, dňa 22.7.2013</p> <p>Občianske združenie Malé Karpaty, Továrenská 1, 908 73 Veľké Leváre "a" RNDr. Anna Zemanová, Konecová 25, 83107 Bratislava</p>	
<p>Submitted material does not address or define specific project proposals aimed at the construction and upgrading of the infrastructure by 2020 and therefore we require to proceed with the process of assessment of the strategic document with nationwide document through the Environmental Report.</p>	<p>Vec: Pripomienky k Oznámeniu o strategickom dokumente s celoštátnym dosahom "Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020"</p> <p>The objective of the Notification on the strategy document is not to address and define specific proposals of projects of the considered strategic document. Its mission is to bring the environmental context of the strategic document, to familiarise the public with potential environmental impacts resulting from its non/implementation. Actual strategic documents are presented to the public to peruse through websites of MDVRR and MŽP.</p>

Table continuation

Comment	Explanation
<p>Občianske združenie Malé Karpaty, Továrnska 1, 908 73 Veľké Leváre RNDr. Anna Zemanová, Koncová 25, 83107 Bratislava</p> <p>Strategic plan should be the starting point of the Slovak Republic for the implementation of projects aimed at the construction and modernisation of infrastructure by 2020, and for rail, road, air, water and intermodal transport. The document is to identify the key points on the infrastructure, which removal is to significantly contribute to the improvement of the existing situation, whether in terms of transport, economic, environmental or a combination or elimination of expected problems in transport network. The notice states that the Strategic Plan for the development of transport infrastructure in 2020 will be a so-called. 1 phase strategy based on currently available data and their evaluation. Subsequently be processed II. phase of the strategic document that will have long-term nature of the document and will be built on the foundations of the transport model is in some way review phase I.</p> <p>This procedure is not standard to notice is not clear whether the assessment of individual phases will separate document, or will be conducted as part of a joint report and one final opinion.</p>	<p>Bratislava, dňa 22.7.2013</p> <p>Vec: <b>Pripomienky k Oznámeniu o strategickom dokumente s celoštátnym dosahom „Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020“</b></p> <p>Strategic plan for the development of transport infrastructure SR by 2020 is a basic strategic document of the Slovak Republic, the medium-term nature of the development of transport infrastructure by 2020. This document is an output of Phase I production of comprehensive transport sector strategy SR. The document follows and elaborates detailed previously existing strategies and policies for the development of transport, in particular the Transport Policy of the Slovak Republic until 2015 and the Transport Development Strategy of the Slovak Republic by 2020.</p> <p>Processing of 2<sup>nd</sup> phase of the document, of which the termination is expected by the end of 2016, will serve to adjust the system of development planning of the transport system in Slovakia. At this stage MDVRR will ensure development of functional transport model of the SR, which contributes to the systemic approach of defining the needs of the development of transport infrastructure in several aspects, as well as data collection and the subsequent modelling of transportation-traffic demands on the network. The second phase will then be prepared as a long-term strategic document for the development of transport infrastructure Slovak Republic in 2030, which will also be subject to an assessment of impacts on the environment according to Act No. 24/2006 Coll.</p>
<p>We require to complete the Report on the impact of the strategic document on the environment and the Scope of the assessment shall include the following comments:</p>	<p>Accepted, ER is in progress</p>

Table continuation

Comment	Explanation
<p>Občianske združenie Malé Karpaty, Továrenská 1, 908 73 Veľké Leváre RNDr. Anna Zemanová, Koncova 25, 83107 Bratislava</p>	<p>Bratislava, dňa 22.7.2013 Vec: Prípomienky k Oznámeniu o strategickom dokumente s celoštátnym dosahom „Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020“</p>
<p>1. As a fundamental requirement we define that the final statement will be issued after the completion of Phase II, which will be established on the basis of the transport model. Currently, there is no relevant document showing the execution of research and development for road infrastructure, including the proven merits of construction and future use of some highway sections, or objectively ascertained results of such research and development of road infrastructure, taking such action on the proposed roads without these documents and research could be a violation of law no. 135/1961 Coll. on roads (Roads Act), as amended.</p>	<p>The second phase of SPRDI SR 2020 will be a long-term strategic document for the development of transport infrastructure in Slovak Republic by 2030, which will be subject to preparation and approval at the state level, according to Act No. 24/2006 Coll. this strategic document is subject to assessment of environmental impacts (SEA process).</p> <p>Dividing SPRDI SR into 2 phases was closely consulted with representatives of the European Commission, which requires to perform the SEA process at every stage, including the final opinion.</p> <p>Elaboration of SPRDI SR 2020 represents a so-called ex ante conditionality for drawing funds in the programming period 2014 - 2020 and their use for implementation of infrastructure projects that are significantly improving the quality of life of the population, reduce negative impacts of the individual car transport on the environment, introducing measures to improve the protection of environment and the safety of road users.</p>
<p>2. From the transport model the direction of individual transport modes (especially passenger and freight, transit and destination) must be clear, with links to the strategic transport routes prepared in the public interest. Strategic routing of traffic flows is important to justify funding from public sources and to demonstrate the merits of individual projects inclusion in the strategy document.</p>	<p>Accepted. Strategic routing of traffic flows and their justification will be addressed within the transport model. At the project level, feasibility studies will be elaborated to examine the merits of the individual project plans in detail.</p>
<p>3. The Report shall specifically consider road constructions, which come into contact with the protected territories with occurrence of priority habitats or priority species habitats, and which may be approved only on grounds relating to human health, public order, security of the Slovak Republic, of significant improvement of the environment or if according to the European Commission there are other overriding reasons of public interest and with the condition of compensatory measures necessary to ensure the protection and integrity of a coherent network of protected areas.</p>	<p>The requirement is based on the Act No. 24/2006 Coll. on assessment of impacts on the environment and on amendments to certain Acts, accepted in the ER.</p>
<p>4. Specifically identify expected benefits, costs and risks of each proposed project. Quantify the technical- economical costliness and efficiency of public transport investment to demonstrate and quantify its transport and economic efficiency, feasibility and priority. Currently, public funds are used for much exploratory and preparatory work, whereas it is not proved that the forthcoming investments are justified in terms of a strategy, for example, the geological examination and design work on the section of the motorway D4 section Ivanka - Záhorská Bystrica.</p>	<p>The comment was made for the development of the ER, or for the incorporation into the scope of the assessment. The relevant requirement is not the subject for the development of the ER according to Annex 4 of the Act. 24/2006 Coll. economic aspects of this issue is addressed in feasibility studies, or technical - economic studies.</p>

Table continuation

Comment	Explanation
<p>Občianske združenie Malé Karpaty, Továrenská 1, 908 73 Veľké Leváre            RNDr. Anna Zemanová, Konecová 25, 83107 Bratislava</p>	<p>Bratislava, dňa 22.7.2013</p> <p>Vec: Prípomienky k Oznámeniu o strategickom dokumente s celoštátnym dosahom „Strategický plán rozvoja dopravnej infraštruktúry SR do roku 2020“</p>
<p>4. Specifically identify expected benefits, costs and risks of each proposed project. Quantify the technical- economical costliness and efficiency of public transport investment to demonstrate and quantify its transport and economic efficiency, feasibility and priority. Currently, public funds are used for a lot of exploratory and preparatory work, whereas it is not proved that the forthcoming investments are justified in terms of a strategy, for example, the geological examination and design work on the section of the motorway D4 section Ivanka - Záhorská Bystrica.</p>	<p>The comment was made for the development of the ER, or for the incorporation into the scope of the assessment. The relevant requirement is not the subject for the development of the ER according to Annex 4 of the Act. 24/2006 Coll. economic aspects of this issue is addressed in feasibility studies, or technical - economic studies.</p>
<p>5. Define logical transport units, which must be assessed together to ensure a comprehensive decision-making process, identify effects on the environment, impact on nature and the economy of projects that have reciprocal links, or are linked to projects in neighbouring countries, such as the northern section of D4 motorway. Linked logical transport projects should serve as a common basis for EIA processes and review the impact on Natura 2000 sites in both neighbouring countries.</p>	<p>In the process of strategic environmental assessment of environmental impacts, within the ER, the assessment is applied in the context of the basic zoning of SR. Under the binding part of the KURS 2011 it is concerning nodal - catchment regions that represent the natural transport regions of Slovakia.</p>
<p>6. Elaborate further actual effects on the environment and population, as well as measures to minimise of identified impacts of individual proposed projects with emphasis on the proposed road transport projects, specifically for development plans of M.R. Štefánik airport.</p>	<p>Assessment of the environmental impact of individual transport infrastructure projects is a subject to the EIA stage, not the SEA process. In the process of strategic environmental assessment of the environmental impact SEA are rated elements of transport infrastructure forming strategic dimension of the transport system. It is concerning transport systems as a whole (individual transport modes), qualitative aspects of system measures of transport modes and within the transport systems it is concerning assessment of territorial sectors affected by elements of transport infrastructure of strategic context (e.g. continuous motorway sections between junctions of motorways with motorways and junctions of motorways with expressways).</p>



Table continuation

Comment	Explanation
<p>ÚNIA MIEST SLOVENSKA ÚMS 1327 / 13  BIELA 6  811 01 BRATISLAVA 1 Bratislava, 14.8.2013</p>	
We state that the material submitted is drawn within the purview of the provisions of the Act No. 24/2006 Coll. on the assessment of environmental impacts.	No comments.
Draft of the strategic plan does not consider the variant solution - noted.	No comments.
<p>We are fully committing to the proposal of opinions and expression, projected in the design of topics, requiring adjustments to following bullets:</p> <ul style="list-style-type: none"> <li>we are asking to amend the bullet "to place the issue of combined transport in Slovakia" with the text: "Integrated suburban public transport".</li> <li>we are asking to amend the bullet "to describe the issue of cycling (cycling routes), support of the regional transport within the self-governing regions" with the text: "namely in urban agglomerations and urban regions, including electromobility".</li> </ul>	<p>ER deals with the assessment of intermodal transport, which includes the combined transport as well. Integrated transport systems form the subject of the strategic document SRVOND SR 2020, evaluation of which is a part of the ER.</p> <p>The issue of cycling addressed in the context of polycentric settlement system and FUA is the subject of the strategic document SRVOND SR 2020, evaluation of which is a part of the ER. The issue of the electromobility is not a subject of SPRDI SR 2020, it is a part of the strategic documents dealing with saving fuels and energy.</p>

## XII. BIBLIOGRAPHY

- Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for official publications of the EC, 2002
- Transport and ITS impact of transport on environment in Slovak Republic as to 2011, Sector Indicator Report. SAŽP Banská Bystrica, 2013 SAŽP Banská Bystrica, 2013
- Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment. European Union, 2013 European Union, 2013
- Handbook on SEA for Cohesion Policy 2007 - 2013. GRDP, 2006 GRDP, 2006
- Správa o stave životného prostredia SR v roku 2011.
- Štúdia dopadov sústavy Natura 2000 na dopravnú infraštruktúru, Dopravoprojekt, 2013;
- The SEA Manual - A sourcebook on SEA on transport infrastructure plans and programmes, European Commission, DG TREN, 2005;
- TERM – Transport and Environment Reporting Mechanism, 2000, 2002, 2004a.
- Návrh siete TEN-T podľa Legislatívne uznesenie Európskeho parlamentu z 19. novembra 2013 o usmerneniach Únie pre rozvoj transeurópskej dopravnej siete (COM(2011)0650/3 – C7-0375/2012 – 2011/0294(COD));
- TINA Final report, Identification of the network components for a future Trans-European Transport Network in Bulgaria, Romania, Hungary, Slovenia, Slovak Republic, Czech Republic, Poland, Lithuania, Latvia, Estonia and Cyprus, Drafted by the TINA Secretariat on the basis of the work done by the TINA Groups, October 1999;
- Teorie regionálního rozvoje, nástin, kritika, implikace, Jiří Blažek, David Uhlíř, Karolinum Praha, 2011;
- Štúdia dopadov sústavy NATURA 2000 na dopravnú infraštruktúru. Teorie regionálního rozvoje, nástin, kritika, implikace.
- BEZÁK, A. Geographia Slovaca, 15. Funkčné mestské regióny na Slovensku. 165-190;
- MP 1/2006 – Metodický pokyn a návod prognózovania výhľadových intenzít na cestnej sieti (do roku 2040), Ministerstvo dopravy pôšt a telekomunikácií, Sekcia dopravnej infraštruktúry, október 2006
- EIA documentation to projects, published at <http://www.enviroportal.sk/sk/eia>;
- Katalóg biotopov Slovenska, Štátna ochrana prírody SR, 2002;
- Európsky významné biotopy na Slovensku, Štátna ochrana prírody SR, 2003;
- Priaznivý stav biotopov a druhov európskeho významu, Štátna ochrana prírody SR, 2005;
- Hodnotenie plánov a projektov významne ovplyvňujúcich lokality sústavy Natura 2000 – Metodická príručka k ustanoveniam článkov 6(3) a 6(4) smernice o ochrane biotopov, voľne žijúcich živočíchov a voľne rastúcich rastlín 92/43/EHS, MŽP SR, 2002;
- Atlas krajiny Slovenskej republiky, MŽP SR, SAŽP, Esprit spol. s r.o., 2002;
- Gödel Escher Bach, existenciální gordická balada, Douglas R. Hofstadter, ARGO/DOKOŘÁN, 2012;
- Vytěžování mobilního života, Christopher Mims, SCIENTIFIC AMERICAN; 2013;
- Hlboká ekológia, Bill Devall, George Sessions, ABIES, 1997;
- [www.enviroportal.sk](http://www.enviroportal.sk);
- [www.sazp.sk](http://www.sazp.sk);
- [www.sguds.sk](http://www.sguds.sk);
- [www.vuvh.sk](http://www.vuvh.sk)

## • ANNEXES

- Annex 1.1 – Assessment of visions, objectives and priorities of SPRDI SR 2020
- Annex 1.2 – Assessment of visions, objectives and priorities of SRVOND SR 2020
- Annex 2.1 – Assessment of SPRDI SR 2020 road transport measures
- Annex 2.2 – Assessment of SPRDI SR 2020 and SRVOND SR 2020 measures relating to the railway, air, inland waterway, public passenger, non-motorised and intermodal transport
- Annex 3 – Assessment of cumulative impacts of SPRDI SR 2020 and SRVOND SR 2020 measures
- Annex 4 – Assessment of SPRDI SR 2020 impacts on Natura 2000 sites
- Map scheme no.1 – SPRDI SR 2020, ER, July 2013, zero scenario, rail, air, waterways and intermodal infrastructure,
- Map scheme no.2 – SPRDI SR 2020, ER, July 2013, implementation scenario, rail, air, water and intermodal infrastructure,
- Map scheme no.3 – SPRDI SR 2020, ER, July 2013, zero scenario, infrastructure of road transport,
- Map scheme no.4 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of road transport,
- Map scheme no.5 – SPRDI SR 2020, ER, July 2013, implementation scenario, localization of highways and motorways network due to the density distribution of the population of the Slovak Republic,
- Map scheme no.6 – SPRDI SR 2020, ER, July 2013, implementation scenario, availability of residents to routes of motorways and expressways in the west - east and north - south to 15 min,
- Map scheme no.7 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of rail, air, waterways and intermodal transport - a comparison with the residential structure,
- Map scheme no.8 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of rail, air, waterways and intermodal transport - a comparison with Natura 2000,
- Map scheme no.9 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of rail, air, waterways and intermodal transport - a comparison with National nature reserve ,
- Map scheme no.10 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of road transport – actions,
- Map scheme no.11 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of road transport - a comparison with the residential structure,
- Map scheme no.12 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of road transport - a comparison with Natura 2000,
- Map scheme no.13 – SPRDI SR 2020, ER, July 2013, implementation scenario, infrastructure of road transport - a comparison with National nature reserve,

## **ANNEX 1.1**

### **Assessment of visions, objectives and priorities of SPRDI SR 2020**



## 1. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF STABLE AND EFFECTIVE DEVELOPMENT OF TRANSPORT SECTOR WITH ENVIRONMENTAL OBJECTIVES

Vision VP1 Effective planning processes for development of the transport sector

Vision VP2 Sustainable funding of transport sector

Table 1 Evaluation of compliance of objectives and priorities of effective development of transport sector

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SP1	Setting up pre-investment preparation processes leading to sustainable development of transport	SP1.1	Implementation of individual steps/phases of planning within the pre-investment preparation	+2	+1	+1	+1	+1	+1	+1	+1	+1
		SP1.2	Implementation of project management principles within preparation processes of the project concepts	+2	+1	+1	+1	+1	+1	+1	+1	+1
SP2	Building of high-quality database for planning of the transport sector development	SP2.1	Implementation of a multimodal transport model of the Slovak Republic	+2	+1	+1	+1	+1	+1	0	0	+1
		SP2.2	Update and continuous maintenance of databases of individual sub-sectors	+2	0	0	0	0	0	0	0	0
SP3	Sustainable plan for funding of transport infrastructure	SP3.1	Setting up sustainable funding structure for development of transport sector	+1	0	0	0	0	0	0	0	0
		SP3.2	Setting up sustainable funding model for maintenance of transport infrastructure	+1	0	0	0	0	0	0	0	0

+2 priority is in full compliance with EC

+1 priority is in partial compliance with EC

0 no or weak link between the priority and EC

-1 priority is in partial conflict with EC

-2 priority is in non-compliance with EC

? specific solutions are required for evaluation of compliance

### *Setting up pre-investment preparation processes leading to sustainable development of transport*

Strategic objective is aimed at the setting up of pre-investment preparation processes leading to sustainable development of transport. The fulfillment of the objective should primarily lead to the implementation of individual steps/phases of planning within the pre-investment preparation of investment projects and to the implementation of the project management principles within the processes of preparation of project plans.



### ***Building of high-quality database for planning of the transport sector development***

Strategic objective is aimed at the building of a high-quality database for planning of the transport sector development. The fulfillment of the objective should primarily lead to the implementation of multimodal transport model of the Slovak Republic, update and continuous maintenance of database required for effective planning of transport sector development.

### ***Setting up the plan for sustainable funding of transport infrastructure***

The fulfillment of the objective should primarily lead to the setting up of sustainable funding structure for development of the transport sector and for the maintenance of transport infrastructure.

### ***Evaluation of compliance of objectives and activities with environmental objectives***

The process of investment planning follows European as well as national binding conventions, which include the most important investment activities. EC facilitates the support of important investments in the field of TEN-T network development also through the new financial instrument "Connecting Europe Facility" CEF). It includes the support of preparation of project documentations as well as the implementation of investment actions.

Within the preparation process of individual project charters, it will be consistently required to fulfil the required steps in phases of pre-investment, investment/project preparation, as well as in the phase of construction.

Implementation of a multimodal transport model is the key prerequisite for setting up of effective transport planning processes and the development of transport infrastructure in the territory of the Slovak Republic. There are therefore significant system measures with immediate usage within so-called II. phase of preparation of the transport sector strategy relating directly to this document.

Consistent compliance with the phases within the preparation process and the implementation of development projects, based on outputs of the multimodal transport model, will result in improvement, particularly in the areas aimed at the provision of the transport service and its users – population of the Slovak Republic.

At the same time, the utilisation of multimodal transport model outputs comprises the possibility to influence proposals and decisions on the location of transport structures through the mitigation of negative effects of transport on the environment and landscape.

An important chapter of evaluation is the area of project preparation of the transport infrastructure. An Annex of SPRDI SR 2020 includes project documents of the transport infrastructure with recommended preparation. At the same time, the utilisation of multimodal transport model outputs comprises the possibility to influence proposals and decisions on the location of transport structures through the mitigation of negative impacts of transport on the environment and the landscape.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the accessibility of basic and transport services;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to improve the safety of transport.

Objectives and activities proposed within the assessed visions do not constitute a potential conflict with the environmental objectives of the Environmental Report.

## 2. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF ROAD TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VC1 Modern, high-quality, safe and efficiently functioning network of motorways, expressways and I. class roads

Table 2 Evaluation of compliance of objectives and priorities in road transport

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SC 1	Effective development of the network of motorways, expressways and I. class roads	SC1. 1	Capacity increase of the network of motorways, expressways and improvement of accessibility of regions through the construction of new sections	+2	+1	?	?	?	?	-1	-1	?
		SC1. 2	Improvement of accessibility of the network of motorways and expressways through the construction of new I. class roads sections	+2	+1	?	?	-1	?	-1	-1	?
SC 2	Upgrading and renewal of the road network	SC2. 1	Improvement of technical condition of motorways and expressways	+2	+1	+1	0	0	0	0	0	0
		SC2. 2	Improvement of technical condition of I.class roads	+2	+1	+1	0	0	0	0	0	0
SC 3	Development of Intelligent Transport Systems (ITS)	SC3. 1	Development of ITS infrastructure on the network of motorways, expressways and I. class roads	+1	0	0	0	0	0	0	0	0
		SC3. 2	Effective utilisation of primary/sensory data sources	+1	0	0	0	0	0	0	0	0
SC 4	Improvement of road safety	SC4. 1	Prevention of black spots	0	+2	0	0	0	0	0	0	0
		SC4. 2	Removal of black spots	0	+2	0	0	0	0	0	0	0
SC 5	Reduction of socio-economic and environmental impacts of road transport	SC5. 1	Reduction of impacts on the environment and population <ul style="list-style-type: none"> <li>monitoring of environmental components in connection with the operation of motorways, expressways and I. class roads</li> </ul>	0	+1	0	0	0	+1	+1	0	0
			<ul style="list-style-type: none"> <li>construction of noise barriers</li> </ul>	0	+2	0	0	0	0	-1	0	0
			<ul style="list-style-type: none"> <li>efficient construction of bypasses</li> </ul>	+2	+2	0	?	?	?	?	?	?
			<ul style="list-style-type: none"> <li>construction of ecoducts</li> </ul>	0	0	0	0	0	0	+2	+1	0

### *Effective development of the network of motorways, expressways and I. class roads*

Strategic objective SC1 is aimed at an effective development of the network of motorways, expressways and I. class roads. The fulfillment of the objective should lead to the improvement of international accessibility, accessibility of regions, districts, major points of interest, etc. by means of high-quality and effective network of motorways, expressways and I. class roads.

The capacity increase of the network of motorways, expressways and the improvement of accessibility of regions is to be provided by the construction of new sections.

The emphasis within the implementation of the priority SC1.1 will be put on update of the concept of the development of motorways and expressways based on the evaluation of feasibility studies, on the rationalisation of planned construction projects, of expressways in particular (verification of the possibility and of the outcome of building expressways in routes of parallel I. class roads, designed category, technical solution, optimisation of the number and location of interchanges), on an effective design - phasing of the construction (building of half-profiles, expressways in particular), construction of complex sections without fragmentation, the use of modern safety design parameters and safety elements, etc.).

Improvement of the accessibility of the network of motorways and expressways through the construction of new I. class roads sections creates conditions for the improvement of transport service in regions.

Within the implementation of this priority, the emphasis will be placed mainly on the utilisation of results of the traffic census and origin - destination surveys in the design of I. class roads (construction of bypasses of towns and villages), on the rationalisation of planned construction projects, particularly concerning the construction of road relocations and bypasses of cities and villages, on the effective design - construction of complex sections with no fragmentation, use of modern safety design parameters and safety elements, etc.

#### *Upgrading and renewal of the road network*

The strategic objective is aimed at the upgrading and renewal of individual levels of the road network in Slovakia. Meeting this objective should lead especially to the improvement of the technical condition of motorways, expressways and I. class roads, including bridges.

Improvement of the technical condition of motorways and expressways will particularly emphasise the reconstruction of road and bridge sections in a state of disrepair, continuous monitoring and landslides remediation, reconstruction of border crossings and the upgrading of lay-bys.

The improvement of technical condition of I. class roads will be focused on a regular diagnostics of I. class roads technical condition, reconstruction of sections in a state of disrepair based on the appraisal and results from the Pavement Management System, reconstruction of bridges with technical condition V - VII and the continuous remediation of landslides.

#### *Development of Intelligent Transport Systems (ITS)*

Strategic objective is aimed at the development of Intelligent Transport Systems. Accomplishment of this objective should mainly lead to the deployment of ITS on the motorways, expressways, and on relevant sections of I. class roads as well. It includes the construction of individual sensory layers (ASD, weather reporting, etc.), as well as central systems with efficient utilisation of sensory database.

The aim of the National System of Traffic Information of the Slovak Republic (hereinafter NSDI) is to create a complex system environment for the collection, processing, sharing, publishing a distribution of traffic information and traffic data. The data will include information on actual traffic situation on the road network, information on the network of roads, their parts and accessories. NSDI will create the optimal environment for administration and operation of applications and systems over those traffic information and traffic data in connection with the unified geo-reference model of the road network. The system will ensure provision of guaranteed and verified traffic information for the general public as well as for experts. NSDI integrates existing systems of road administrators and other organisations dealing with relevant traffic information into the National Traffic Information Centre (NDIC).

NSDI will consist of implementation domains:

- NDIC;
- Generation and collection of information;
- Intelligent transport systems of largest agglomerations;

- Intelligent transport systems of major roads.

NDIC will include main subsystems:

- Acceptance of data and information;
- Processing and evaluation of data;
- Dispatching surveillance;
- Support of traffic control;
- Provision of information and data;
- Data storage, archive.

### ***Improvement of road safety***

Strategic objective is targeting the improvement of the road safety. It should particularly lead to the prevention of so-called black spots and to the elimination of existing black spots. Following priorities and frameworks of measures have been defined within the specific objective:

### ***Reduction of socio-economic and environmental impacts of road transport***

Strategic objective is aimed at the reduction of socio-economic and environmental impacts transport. There should be a reduction of environmental and population impacts resulting from the road transport.

Reduction of impacts on the environment and population should be provided by:

- monitoring of environmental components in connection with the operation of motorways, expressways and I. class roads,
- construction of noise barriers;
- efficient construction of bypasses;
- construction of ecoducts.

### ***Evaluation of compliance of objectives and activities with environmental objectives of the Environmental Report***

Transport infrastructure in Slovakia fulfils its function - transport service of the territory - at an inadequate quality level. It is not possible to assert that the territory of Slovakia in settlement areas is not accessible by the road infrastructure, but in areas with high concentration of population and its activities, there are clearly identified deficiencies in the performance of transport infrastructure and in its complex configuration. The I. classroads substitute the function of motorways and expressways on many road network sections in Slovakia, including components of the TEN--T network. In most cases, these roads are routed through the residential areas of cities and villages and they are the resources of negative environmental impacts.

Objectives defined in SPRDI SR 2020 have the ambition to improve the adverse condition of road infrastructure quality parameters with the highest importance. In addition to an important role in the national economy development, the implementation of objectives has a direct positive environmental impact, especially with regard to health. In densely populated urban agglomerations and in rural zone sections of I. class roads in corridors of future motorways and expressways, traffic accidents rate is expected to be improved through construction of motorway infrastructure. Positive changes can be expected also with regard to decreasing noise and emission burden of public for reasons of rerouting the transport from cities and villages residential areas to new motorway and expressway routes outside settlements and the implementation of antinoise measures. Last but not least, significant improvement of transport accessibility of main agglomerations in Slovakia will be reflected in a higher quality of life.

An important chapter of the assessment is the area of upgrading and renewal of the road network. Activities planned in the area of upgrading and renewal of the road network reflect the unsatisfactory building and technical condition of some road network sections. There are 2.5% of roads in unsatisfactory condition in the network of motorways and expressways and other 0.6% of the total length of roads are in an emergency condition. The network of 1st class roads includes 47.6% of roads in an unsatisfactory condition and 6.2% from the total length of 1st class roads are

in an emergency condition. Since 2000, the total share of 1st class roads sections in an unsatisfactory condition or in an emergency condition has risen two and a half fold.

Evaluation of visions, objectives and priorities includes projects listed in the Annex to SPRDI SR 2020 - Indicative list of suggested projects and in the table at the end of the Annex 1.1 to the Environmental Report. Connection with the priority SC1.2 "Improvement of accessibility of the network of motorways and expressways through the construction of new I. class roads sections" and with the priority SC5.1 "Reduction of impacts on the environment and population - effective construction of bypasses" is present within projects of the construction of I. class roads (bypasses and relocations of roads, sections with inadequate technical and capacity parameters). The connection with the priority SC2.2 "Improvement of technical condition of I.class roads" and with the priority SC4.1 "Prevention of black spots" is present in the projects aimed at the upgrading and ensuring of road safety on motorways, expressways and I. class roads. The project "Measures for reduction of noise pollution on I. class roads" is related to the priority SC5.1 "Reduction of impacts on the environment and population - construction of noise barriers".

Projects for upgrading and reconstruction of the road network are mostly planned in the existing corridors of roads, having character of construction activities of local importance, where it is necessary to comply with the Act No. 24/2006 Coll. and decide on the assessment of environmental impacts at the EIA process level. Project documents of the majority of listed projects for upgrading and reconstruction of the road network are not processed appropriately. Technical data of different level concerning abovementioned projects used within the system evaluation of compliance of visions, objectives and priorities were provided by SSC and NDS, a.s. Concerning the evaluation of compliance of visions, objectives and priorities, relevant objectives are assessed as with presumed positive environmental effect.

Introduction of transport telematics – intelligent transport systems – into transport management will also be a significant contribution to the environment. Navigation systems and information services of operation management may increase the traffic flow fluency and thus decrease total consumption of fuel as well as pollutants, e.g. through the assistance to route planning.

Transport infrastructure development is connected with negative trend of energy consumption growth dominated by the liquid fuel consumption. From the global point of view, the development of road infrastructure contradicts the EU objectives concerning greenhouse gas reduction. The implementation of measures however, fulfils the objective of the community to support the single multimodal European transport area through investments into Trans-European transport network (TEN-T). In this context, it is necessary to agree on some trade-off to support the sustainable mobility and economic growth.

Naturally, the construction of new roads and expressways will not avoid the negative impacts on areas where they will be implemented. Construction will affect all the core components of environment - soil, water, air, biodiversity. Summary of potential impacts on individual components is listed in chapter IV.1.

The most significant conflict area related to construction of new infrastructure is the clash with nature protection interests, in which the conflict with areas included in Natura 2000 network prevails. Evaluation of conflicts of projects included in SPRDI SR 2020 is addressed in chapter IV.4. In this context, it is necessary to state that the initiative of MDVRR SR for construction of ecoducts for the migration of animals has to be viewed as positive. Ecoducts will be located in areas where they are needed according to the cooperation with expert organisations.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the accessibility of basic and transport services;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to improve the safety of transport.

Objectives and activities proposed within assessed visions and objectives of SPRDI SR 2020 constitute potential conflict, especially with following environmental objectives of the Environmental Report:

- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions;
- to increase energy resources efficiency;
- to minimise agricultural and forest land take;
- to ensure the flood protection of the territory;
- to ensure the protection of valuable parts of nature and functionality of ecosystems;
- to ensure the integrity of Natura 2000 sites;
- to sustain the environmental stability of the landscape;
- to preserve integrity of landscape and its scenery value;
- to preserve the cultural heritage;
- to increase energy resources efficiency;
- to use material resources reasonably, to prevent waste production.



### 3. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF RAILWAY TRANSPORT WITH ENVIRONMENTAL OBJECTIVES OF ENVIRONMENTAL REPORT

Vision VZ1 Balance between transport supply and demand

Vision VZ2 Balance between infrastructure supply and demand

Vision VZ3 Creating conditions for proper functioning of railways

Table 3 Evaluation of compliance of objectives and priorities in railway transport

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SZ1	high-quality and competitive railway passenger transport	SZ1.1	Comfortable passenger transport	+2	+1	+1	0	0	0	0	0	0
		SZ1.2	Quality of passenger transport supply	+1	+1	+1	0	0	0	0	0	0
		SZ1.3	Achievement of the network effect in long-distance railway transport	+1	+1	+1	0	0	0	0	0	0
SZ2	High-quality and competitive railway freight transport	SZ2.1	Reliable freight transport	+1	0	+2	0	0	0	0	0	0
		SZ2.2	Optimisation of sites for consolidation and disposition of cargo	0	0	+2	0	0	0	0	0	0
SZ3	Modern and safe railway infrastructure	SZ3.1	Ensuring operability of the railway infrastructure where advisable	+1	+1	+1	0	0	0	0	0	0
		SZ3.2	Upgrading and development of railway infrastructure where advisable	+2	+1	+1	0	?	?	-1	-1	0
		SZ3.3	Improvement of safety and reliability	+1	+2	+1	0	0	0	0	0	0
SZ4	Effective organisation and planning of the railway development	SZ4.1	Compliance with actual and anticipated EU and SR legislation	0	?	?	0	0	0	0	0	0
		SZ4.1	Mid-term confirmation of concepts - coordination of public passenger transport subsidies	0	?	?	0	0	0	0	0	0
		SZ4.1	Optimisation of the preparation process of development projects	0	?	?	0	0	0	0	0	0
SZ5	Economically sustainable railways	SZ5.1	Increase of railway transport revenues	0	+1	+1	0	0	0	0	0	0
		SZ5.2	Reduction of railway infrastructure costs	0	+1	+1	0	0	0	0	0	0
		SZ5.3	Effectiveness of development projects	0	+1	+1	0	0	0	0	0	0

*High-quality and competitive railway passenger transport*

Specific objective is aimed at the creation of the attractive railway passenger transport system of sufficient quality. It is not concerning only the facilities of trains, railway stations and stops, but the provision of mutual transport relations as well.

Within the implementation of priority „Comfortable passenger transport“ the emphasis will be put mainly on the substantial improvement of parameters in a financially not demanding form, which will nevertheless improve the perception of railways from the side of end-users – passengers. It is concerning the improvement of comfort through the renewal and equipment of the rolling stock, facilities of railway stations and stops, information systems, etc.

„Quality of passenger transport supply“ will be focusing on the utilisation of transport potential, especially in axes, where the road transport (mass as well as individual) is not more favourable in terms of the travel time. Taking into account the actual and expected demand, it is appropriate to determine a corresponding extent of long-distance and regional transport, including the connectivity with other transport systems. Thus it is concerning the strengthening of transport and the improvement of the infrastructure quality in promising areas and, on the other hand, reduction of operation or infrastructure in areas, which clearly have no potential.

During the implementation of the priority „Achievement of network effect in long-distance railway transport“ the emphasis will be particularly placed on the application of modern trend in organisation of the railway passenger transport – progressive introduction of the Integrated tact timetable (ITT), which provides mutual regular changing links (including coordination with the bus transport) and regular intervals of individual lines. The ITT system requires prepared railway infrastructure in nodes (railway stations with mutual changing link), as well as on railway lines, where it is necessary to achieve the interconnection of train lines on following lines through “system travel times”.

#### ***High-quality and competitive railway freight transport***

The support of freight transport development requires ensure the necessary parameters of the infrastructure, modern and high-capacity sites for loading, transshipment and unloading of cargo.

Within the implementation of the priority "Reliable freight transport", the particular weight will be given to the improvement of reliability and provision of parameters for the operation of freight transport. A survey performed among operators and mentioned in the study of VVUŽ (Research and Development Institute for Railways) of 2012 indicates low reliability. In terms of the infrastructure condition, it is advisable to offer sufficient length of tracks in railway stations to ensure adequate parameters and capacity of railway lines. A great chance is hidden in the intermodal transport. However, it requires construction of terminals to cover increasing cargo volume in the intermodal transport and readiness for the growth of continental transport (including the axis Asia - EU).

"Optimisation of sites for consolidation and disposition of cargo" will focus on the adaptation of lines to the needs of freight transport and the optimisation of the number and equipment of sites for consolidation, management and disposition of cargo in the freight transport, including sidings.

#### ***Modern and safe railway infrastructure***

Specific objective recommends early and adequate maintenance of all lines in the operation and the upgrading of important lines with high transport potential as well.

Ensuring operability of the railway infrastructure where advisable, i.e. lines in operation. These lines must be in an adequate technical condition, which is not threatening the safety of users and which is not limiting proper utilisation of designed parameters (e.g. travel speed). The part of railway network, which is not going to be upgraded, but has a sufficient amount of traffic, should be put in a satisfactory condition.

Upgrading and development of railway infrastructure where advisable will be executed in axes with actual or anticipated high demand for railway passenger and freight transport. The lines and nodes should be upgraded (implementation or improvement of required parameters). In terms of axes, it is particularly concerning the main routes of the railway network (TEN-T core network). An important aspect of upgrading is the achievement of the interoperability.

From the perspective of reduction of environmental impacts of transport and the achievement of greater energy independence from oil products, electrification of railway lines is a desirable part of the upgrading.

Within the implementation of the priority "Improvement of safety and reliability", the emphasis will be placed on the improvement of the transport operation safety (improvement of the signaling equipment and the elimination of the impact of errors caused by human factor in the traffic management), as well as on the safety of individual passengers (adjustment of platforms in railway stations) and other participants in the transport process (ensuring safety on level crossings). In the passenger transport, as well as in the freight transport recently, reliability is very important, i.e. respecting the expected travel times. In the freight transport, it is an approach called "just in time", which means an exact time integration of the railways into the entire logistics process

### ***Effective organisation and planning of the railway development***

Specific objective accentuates the necessity of an effective organisation and further planning of the railway sector development. It is necessary to create appropriate conditions for that.

General compliance with actual and anticipated European and Slovak legislation in the railway sector is being achieved appropriately. The task of the infrastructure manager is to co-create legislative conditions, which would enable the operation of railway transport and railway infrastructure without excessive obstructions and higher costs caused by strict standards.

Mid-term confirmation of concepts - coordination of public passenger transport subsidies is important in terms of responsible approach to the reconstruction and upgrading of the railway infrastructure. Upgrading, as well as the reconstruction of the railway infrastructure, is a long-term activity not only in terms of the preparation, but particularly from the perspective of a subsequent utilisation (service life of some parts is up to 100 years) and therefore they must be prepared with due responsibility and a clear vision of the future function and possibilities. Hence, a mutual confirmation of concepts related to the operation and infrastructure is required. This is particularly concerning the concept of transport service of the territory by public passenger transport trains.

The optimisation of the preparation process of development projects gives a proper weight to the selection of a suitable variant of the project solution. From the first phase of the development project planning up to its implementation, it is necessary to keep three basic aspects in mind, namely the necessity (transport related and social), acceptability (territorial and environmental) and feasibility (financial and economic). Successful implementation of a project is subject to all three aspects throughout the whole period of project preparation. The task of the coordination of project preparation is the planning of financial resources for the implementation and planning of only those projects that can be funded and implemented.

Specific objective "Economically sustainable railway" is aimed at the effectiveness of development projects, as well as at the efficient functioning of the railway infrastructure.

An important goal in terms of the infrastructure manager economy is the increase of revenues from the railway infrastructure operation, in order to cover as much operating costs as possible (costs of maintenance and repairs, operation and management of the infrastructure). It can be achieved mainly through the increase of railway transport volume.

Constant cost reduction is another important goal of a railway infrastructure manager. It is concerning operating costs of maintenance, repairs and management of the traffic on the railway infrastructure, as well as the amount of investments required for the implementation of development projects.

The unambiguous objective within the preparation of development projects in the field of railway infrastructure is their positive economic effectiveness, which means that the socio-economic benefits in the assessed period are higher than costs incurred (investment and non-investment). From the financial perspective, it is important for the infrastructure manager, as well as for operators and any other participants in the transport process, to achieve operating savings.

### ***Evaluation of compliance of objectives and activities with environmental objectives of the Environmental Report***

Strategic objectives of the railway transport in SPRDI SR 2020 are arranged according to a complex understanding of the problem: passenger transport and operation, freight transport and operation, railway infrastructure, project and pre-project preparation, economy.

Comprehensively defined and interconnected objectives create preconditions for more efficient use of railway infrastructure capacity, speeding up the carriage of passengers and goods, increase the safety and reliability. Improvement of the qualitative level of railway network has the potential to contribute to the reduction of adverse effects of transport on the environment.

A basic vision in the field of railway network operational use is the overall increase in volume of transport on railways, including the reverse shift of carriage operations from road transport. The railway network has to be generally prepared for this process, it must allow to satisfy the increased demand for passenger as well as for the freight transport at a competitive level.

Lagging behind in the railway infrastructure development may present risks of decrease in national carriage of passengers and goods, as well as reduction of transit transport. It could result in an increase in volume of freight road transport and IAD and related environmental problems.

The ultimate investment priority is the upgrading of railways included in Trans-European corridors IV., V. a VI., which are part of Trans-European transport network TEN-T, to achieve parameters defined in AGC and AGTC agreements, increasing track speeds to 160 km/h where possible considering the geographic conditions and ensuring interoperability when upgrading and reconstructing tracks in accordance with the EU legislation.

Measures of the railway transport contribute to the fulfillment of objectives focused on low-carbon management, environment and effective use of resources. From this global point of view, the ambition of railway transport to increase the volume of transport, including the shift of transport from the road transport, is of highest significance and it will represent a direct contribution to the objective concerning the reduction of greenhouse gas emissions.

In this context, the electrification of tracks is of extraordinary importance as it results in decrease in dependence of transport sector on oil products as well as reduction of emission production including greenhouse gas emissions. When using electrified railroads, the environment is burdened by lower levels of noise and the electrification of tracks results in significantly shorter travel time.

Another effect of track upgrade is decrease in safety risks both internal (technical security of railway operation) and external in respect of travellers and other users of transport. Extraordinary contribution in this area is the realisation of grade separated crossings of railways and road infrastructure.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to transport services and support social inclusion;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to increase the safety of transport;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions;
- to increase energy resources efficiency.

No significant non-compliance with environmental objectives set in the Environmental Report was identified in any case, given that the measures laid down in the environment legislation are implemented.

#### 4. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF INTERMODAL TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VI1 Ensuring conditions for the development of intermodal transport

Table 4 Evaluation of compliance of objectives and priorities in intermodal transport

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SI1	High-quality, accessible and integrated transport infrastructure	SI1.1	Core network of terminals	2	0	+1	0	0	0	0	0	0
		SI1.2	Access to the sea	0	0	+1	0	0	0	0	0	0
SI2	Competitive services and balanced development of all transport modes	SI2.1	Support of intermodal transport operation	0	1	1	0	0	0	0	0	0
		SI2.2	National operator of terminals	0	0	+1	0	0	0	0	0	0
		SI2.3	Support of new lines and renewal of means of transport	0	0	+1	0	0	0	0	0	0
		SI2.4	Control of intermodal transport operation	0	0	+1	0	0	0	0	0	0

##### *High-quality, accessible and integrated transport infrastructure*

The priority of the transport system is to build the core network of intermodal transport terminals (terminals Bratislava, Leopoldov, Košice, Žilina, Budča and Dobrá) and their interconnection (technology and information), as well as connection with logistic centres.

The priority within the EU is to support the building of an access to the sea in the southern part of Europe (ports Koper, Rijeka, Trieste), particularly the railway connection in section Koper - Divač, which presents a bottleneck for freight transport.

##### *Competitive services and balanced development of all transport modes*

The purpose of the strategic objective "Competitive services and balanced development of all transport modes" is the application of "co-modal approach". It is concerning an efficient utilisation of different modes of transport and their combination in order to optimise the transport system and to use environmentally friendly modes of transport more efficiently. Strategic objective is also focusing on the support of the competition through the application of equal access in the provision of transport services and within the transport infrastructure charging.

The support of the intermodal transport operation will be implemented by means of the state aid, through the reduction of taxes on motor vehicles for road vehicles in the intermodal transport, by the possibility to apply the so called "surcharge" to the road toll within the transit of heavy goods vehicles through environmentally sensitive areas.

Another priority is to establish the national operator for the operation of intermodal transport terminals in order to coordinate and ensure non-discriminating provision of services in intermodal transport terminals.

The support of new lines and renewal of means of transport will be applied through the state aid scheme approved by EC to support the introduction of new combined transport lines. It will be necessary to draw up a state aid scheme for the support of procurement of transport and handling means of the intermodal transport.

The control of intermodal transport operation will be aimed at the consistent compliance with the exceptions in the area of banned operation during weekends assigned to road vehicles used in the combined transport and it will also ensure the control weighing.

#### ***Evaluation of compliance of objectives and activities with environmental objectives of the Environmental Report***

In Slovak intermodal transport conditions, the weight of co-modality is on railway and road transport systems. The inland waterway transport incorporated in the intermodal transport system under AGN and AGTC agreements finds its application on the Danube waterway. Intermodal transport is planned on the Váh waterway as well. However, the fundamental premise is the canalization of the Váh waterway in adequate parameters.

Visions and objectives of the intermodal transport in Slovakia establish a presumption of system functionality through the construction of new core public terminals in Bratislava, Žilina, Košice, Leopoldov and Budča. The location of terminals is based on exactly identified data on sources, destinations and routing of existing and potential transport flows. Localisation of terminals is relatively exactly corresponding with the allocation of basic zones (gravity regions) in Slovakia.

Designed public terminals create non-discriminatory conditions for equal access to the intermodal transport facilities. There is a real presumption that the operation of new intermodal transport terminals will result in an increase of share of environmentally and energy efficient transport in the overall volume of freight transport in Slovakia. In this context, it is expected that there will be a shift of a certain volume of the international long-distance road freight transport towards international intermodal transport systems.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to transport services;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions;
- to increase energy resources efficiency;
- to improve the safety of transport.

No significant non-compliance with environmental objectives set in the Environmental Report was identified in any case, given that the measures laid down in the environment legislation are implemented.



## 5. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF AIR TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VL1 Modern, safe and integrated air transport infrastructure

Table 5 Evaluation of compliance of objectives and priorities in air transport

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SL1	Effective development of air transport infrastructure	SL1.1	TEN-T network airports	0	0	1	0	?	0	0	0	0
		SL1.2	Airports outside TEN-T network	0	+1	1	0	?	0	0	0	0
SL2	Maintenance and repairs of the air transport infrastructure	SL2.1	Maintenance and repairs of the air transport infrastructure (both TEN-T network and outside TEN-T network airports)	0	+1	+1	0	0	0	0	0	0
		SL2.2	RWY serviceability control (both TEN-T network and outside TEN-T network airports)	0	+1	+1	0	0	0	0	0	0
SL3	Operational safety and security	SL3.1	Operational safety and security (both TEN-T network and outside TEN-T network airports)	0	0	0	0	0	0	0	0	0
		SL3.2	Professional qualifications of staff in the air transport and airport staff (both TEN-T network and outside TEN-T network airports)	0	0	0	0	0	0	0	0	0
SL4	Reduction of socio-economic impacts of air transport	SL4.1	Monitoring of environmental factors (both TEN-T network and outside TEN-T network airports)	0	+1	+1	0	0	0	0	0	0
		SL4.2	Measures leading to the reduction of negative impacts on environment and population (both TEN-T network and outside TEN-T network airports)	0	2	+2	0	0	0	0	0	0

### Effective development of air transport infrastructure

Strategic objective is aimed at the continual creation of conditions allowing the development of the air transport sector, whereby these conditions tend to consider the creation of liberal conditions and the upgrading of air transport infrastructure. Given conditions represent active instruments for the support of the market access of important airlines in order to ensure the development of mobility and support of economic development of the state and regions.

In the TEN-T network airports category, the emphasis will be particularly placed on the:

- elaboration of strategic development plans by the airport management in order to assess their development potential and contribution to the European TEN-T transport system;
- optimisation of the network of airports operated by airport companies in order to provide functional and effective planning of the air transport sector development;
- upgrading and building of the infrastructure of airports operated by airport companies to facilitate the economic development of the country and regions and the improvement of quality of services offered within the natural and purposeful mobility;

- implementation of individual phases of the pre-investment preparation of measures (surveys - transport relations and environment, feasibility studies, cost-benefit analyses, project preparation of investments).

In the outside TEN-T network airports category, the emphasis will be particularly put on the:

- elaboration of strategic development plans by the airport management in order to assess their development potential and contribution to supraregional purposes and assessment of the necessity of their operation;
- optimisation of the network of airports in order to provide functional and effective planning of the air transport sector development;

#### ***Maintenance and repairs of the air transport infrastructure***

Strategic objective is focusing on the provision of serviceability of the optimised network of air transport infrastructure in Slovakia by means of complex maintenance activities.

The maintenance and repairs of the air transport infrastructure (both TEN-T network and outside TEN-T network airports) will be aimed at the maintenance of air transport infrastructure, which will remove operational limitations or risks in context of the maintenance of grass and paved airport areas, maintenance of drainage systems of the airport, maintenance of airport marking and small-scale repairs of movement areas.

RWY serviceability control (both TEN-T network and outside TEN-T network airports) will be focusing on the detection of RWY roughness and the identification of RWY unevenness for the needs of identification of actual values of the infrastructure serviceability.

#### ***Operational safety and security***

The strategic objective is concerning the necessity to ensure activities to provide security protection of the civil aviation and to provide safe air transport operation as a basic instrument for full acceptability of the air transport infrastructure within the common European aviation area.

Operational safety and security (both TEN-T network and outside TEN-T network airports) is aimed at activities within Safety & Security areas.

Professional qualifications of staff in the air transport and airport staff (both TEN-T network and outside TEN-T network airports) is focusing on the education and training of staff responsible for activities within Safety & Security.

#### ***Reduction of socio-economic impacts of air transport***

In the context of environmental impacts this is the most important objective. Strategic objective is aimed at the reduction of negative impacts of the air transport on the environment and population, valid for both TEN-T network and outside TEN-T network airports.

It is mostly concerning the monitoring of factors related to possible occurrence of negative impacts on the environment and population (noise, emissions, ground water quality).

#### ***Evaluation of compliance of objectives and activities with environmental objectives of the Environmental Report***

Given the size of the country, Slovakia has relatively dense network of airports of different character and classification. In 2013, an initiative of MDVRR SR has been underway to achieve an optimised situation in respect of the number of airports operated by airport companies, taking into account the territorial, economic and transport relations and needs of the state and regions.

Within the EU civil aviation system, in Guidelines of the Community - which is concerning the financing of airports and state aid to the start-ups of airlines departing from regional airports - the European Commission defines three categories of international public airports. From the mentioned criteria it results that Slovakia has one airport of EU importance - the M. R. Štefánik airport in Bratislava and one airport of regional importance and with accessibility relevance - airport Košice.

Presently, there are significant financial and operational problems mainly on the side of airport companies operating airports Žilina, Sliač and Piešťany, primarily because of the absence of stable performance. These findings imply the necessity of a new organisational structure of airport

companies in Slovakia with a tendency to optimise their number, scope and character of provided services. In accordance with the abovementioned information, a common operational-organisational measure is being prepared in a form of changes on the side of airport companies operating airports in Slovakia with a tendency to optimise their number, scope and character of offered services.

Measures in a form of upgrading, building and maintenance of the infrastructure of airports included in the TEN-T network (Bratislava, Košice, Poprad-Tatry) are based on the range of needs of airport companies concerning the operated infrastructure, whether it is considering the complex upgrading of the airport infrastructure (RWY and adjacent areas), building of new infrastructure for the freight transport, or infrastructure-based measures in a form of maintenance works.

The support of proposed measures from public resources will be subject to the EC appraisal. in compliance with the proposal of the EC Guidelines on the state aid to airports and airlines as of 3 July 2013.

Development of the TEN-T air transport infrastructure is connected with expected increase of transport volume followed by the negative trend of energy consumption growth dominated by the liquid fuel consumption - and production of emissions. From the global point of view, the development of air infrastructure contradicts the EU objectives aimed at the greenhouse gas reduction.

Measures to be implemented on airports have to be assessed as a contribution to the improvement of environment.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to reduce the noise pollution effect on population;
- not to deteriorate the environmental and chemical state of waters;
- to improve the safety of transport.

Objectives and activities proposed within assessed visions and objectives of SPRDI SR 2020 constitute potential conflict, especially with following environmental objectives of the Environmental Report:

- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions.

## 6. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF INLAND WATERWAY TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VV1 Modern, safe and integrated infrastructure and operation of inland waterway transport

Table 6 Evaluation of compliance of objectives and priorities in the inland waterway transport

Strategic objective		Priority		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SV 1	Development, upgrading and reconstruction of inland waterway transport infrastructure	SV1. 1	Creating conditions for upgrading and development of existing inland waterways and their subparts (Danube, Váh) to achieve required transport criteria	+1	+1	+1	+1	0	-1 ?	-1	-1	0
SV 2	Maintenance, renewal, upgrading and development of public ports infrastructure	SV2. 1	Creating conditions for maintenance, renewal, upgrading and development of infrastructure and superstructure of public ports	0	+1	+1	0	0	0	0	0	0
		SV2. 2	Building new ports on inland waterways in Slovakia	+1	+1	+1	0	-1 ?	-1 ?	-1	-1	0
SV 3	Deployment of new technologies	SV3. 1	Creating conditions for development of existing system of river information services	0	0	0	0	0	0	0	0	0
SV 4	Reduction of environmental impacts of inland waterway transport	SV4. 1	Reduction of emissions from navigation	0	+2	+2	0	0	0	0	0	0
		SV4. 2	Implementation of waste collection	0	+1	+1	+1	0	0	+1	+1	0
		SV4. 3	Elimination of environmental burden in public ports	0	+2	+2	0	0	+2	+1	0	0
SV 5	Creating conditions for education of staff in inland waterway transport		Creation and establishment of a single European framework for vocational qualifications and preparation of standards in inland navigation	0	0	0	0	0	0	0	0	0

### *Development, upgrading and reconstruction of inland waterway transport infrastructure*

The specific objective is to provide guaranteed conditions for the navigation on inland waterways in Slovakia along with the building of their parts. In order to secure the functioning of safe navigation, with parameters of waterways valid for the Slovak Republic, it is necessary to remove the bottlenecks (navigation obstacles).

Creating conditions for upgrading and development of existing waterways and their subparts (Danube, Váh) requires the implementation of individual phases of pre-investment preparation,

effective design, implementation of the investment preparation, reconstruction and repairs of navigation facilities, maintenance and reconstruction of Danube waterway and realisation of commercial navigation on the Váh waterway, building of infrastructure for sports and recreational navigation in Slovakia.

#### ***Maintenance, renewal, upgrading and development of public ports infrastructure***

Strategic objective is aimed at the continual creation of conditions allowing the increase of inland waterway transport performance, with a tendency to create liberal conditions for business and the upgrading of Danube ports infrastructure. Given conditions represent active instruments for the support of the access of important operators and the acquisition of commodity flows, in order to ensure the development of mobility and support of economic development of the state and regions.

Part of the strategic objective are activities associated with the creating of conditions for the maintenance, renewal, upgrading and development of the infrastructure and superstructure of public ports in areas of planning, investment in new transshipment areas and facilities, warehouses and handling technologies.

Building of new ports on waterways in Slovakia is considering the exploration of opportunities, implementation of individual phases of pre-investment / investment preparation and the construction.

#### ***Deployment of new technologies***

Strategic objective is dealing with need to use the of River Information Services (RIS) to increase the efficiency, safety and development of communication and information infrastructure in the inland waterway transport through the deployment of modern technologies for navigation and port operation management.

#### ***Reduction of environmental impacts of inland waterway transport***

Strategic objective is aimed at the reduction of negative impacts of the inland waterway transport on the environment and population.

Within the implementation of the priority "Reduction of emissions from navigation", the emphasis will be particularly put on the:

- creation of conditions for remotorisation of vessels;
- development and support of introduction of new (alternative) fuels;
- monitoring of factors related to possible occurrence of negative impacts on the environment and population (emissions, water quality).

Implementation of waste collection will be aimed at the:

- waste collection pricing methodology
- building of waste collection sites and areas.

The elimination of environmental burdens in public ports will provide monitoring and removal of environmental burdens incurred in the past and throughout the transshipment activities.

#### ***Creating conditions for education of staff in inland waterway transport***

The strategic objective is focusing on the preparation and support of education and harmonization of conditions of educational processes for staff in the inland waterway transport.

#### ***Evaluation of compliance of objectives and activities with environmental objectives of the Environmental Report***

Interventions into infrastructure of the inland waterway transport are expected to improve conditions of navigability of Danube and Váh waterway, as well as existing services provided in ports, or to extend their offer.

Development and upgrading of waterways and public ports will contribute to development of economy and employment in the Slovak Republic. The infrastructure of inland waterway transport providing required parameters of the navigable waterway throughout the year is the guarantee of competitiveness of the inland waterway transport and its integration into transport chains.

Modernised infrastructure of the inland waterway transport might have positive effects on adjacent regions along Danube and the lower Váh.

Inland waterway transport plays an important role, especially with regard to the carriage of goods, and as a part of intermodal transport networks, it contributes to the achievement the objectives of EU transport policy focused on the reduction of environmental burden caused by ever growing transport demands.

The inland waterway transport impairs water ecosystems and the regime of watercourses. The precondition for its functionality is constructionally and technically challenging infrastructure. Operation of the inland waterway transport vessels is connected with the water pollution. Presently, there is no infrastructure for the supply of alternative fuels.

Strategic objective aimed at the reduction of negative impacts of the inland waterway transport on the environment and population proclaims activities in the area of the remotorisation of vessels, in the field of alternative fuels, within waste management and in the monitoring of environmental impacts. Their contribution may have a positive effect on the environmental balance of the inland waterway transport.

The assessment shows that activities proposed within assessed visions and objectives of SPRDI SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to transport services;
- to reduce the noise pollution effect on population;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions;
- to prevent waste
- to increase energy resources efficiency;
- to improve the safety of transport.

No significant non-compliance with environmental objectives set in the Environmental Report was identified in any case, given that the measures laid down in the environment legislation are implemented.



Table 7 List of motorway and expressway projects considered within the evaluation of compliance of objectives SC1 and SC2 Upgrading and renewal of road network with environmental objectives set in the Environmental Report

Motorways and expressways - upgrading and safety / green projects	
Number of road	Section
R1	Trnava - Nitra (replacement and enhancement of restraint devices)
R1	Šašovské Podhradie - Zvolen (replacement and enhancement of restraint devices)
D1	Trnava - Lúka interchange (replacement and enhancement of restraint devices)
D1	Ivachnová - Važec (replacement and enhancement of restraint devices)
D1	Prešov - Budimír (replacement and enhancement of restraint devices)
D2	Sekule lay-by (both directions) - reconstruction and enlargement
R1	Veľké Zálužie lay-by (left and right side) - reconstruction and enlargement

Motorways and expressways - upgrading and safety / yellow projects	
Number of road	Section
D1	Branisko tunnel - replacement and enhancement of technology equipment
D2	Brodské lay-by and border crossing Slovak Republic / Czech Republic - reconstruction and enlargement
D2	Čunovo lay-by and border crossing Slovak Republic / Hungary - reconstruction
D2	Svrčinovec lay-by and border crossing Slovak Republic / Czech Republic

Motorways and expressways - upgrading and safety / red projects	
Number of road	Section
D1	Zeleneč lay-by (both directions) - reconstruction and enlargement

Table 8 List of I. class roads projects considered within the evaluation of compliance of objectives SC1 and SC2 Upgrading and renewal of road network with environmental objectives set in the Environmental Report

I. class roads - construction/green projects	
Number of road	Section
I/68	Sabinov - road relocation
I/64	Prievidza bypass, I. stage 2 <sup>nd</sup> project - in route of future I/64
I/75	Lučenec - road relocation
I/61	Trnava, southern bypass
I/51	Senica – Jablonica - Trstín, 1 <sup>st</sup> project - Senica bypass
I/66	Brezno - bypass, II. stage
I/64	Prievidza - bypass, II. stage
I/51	Holíč - bypass, II. stage (1 <sup>st</sup> part)
I/75	Šaľa - bypass
I/18	N. Hrabovec - Petrovce n/L, road relocation
I/74	Brekov - Humenné - road relocation

I. class roads - construction/yellow projects	
Number of road	Section
I/77	I/77 Bardejov - Bardejovské Kúpele, road reconstruction
I/64	I/64 Kľače - Šuja
I/64	I/64 Rajecké Teplice - Kľače
I/51	I/51 Vráble - bypass
I/76	I/76 Kalná nad Hronom, bypass
I/67	I/67 Poprad - Kežmarok, II. stage
I/18	I/18 Vranov n/Topľou - southern bypass
I/79	I/79 Hriadky - Trebišov, road relocation
I/50	I/50 Hranica krajov - Nová Lehota
I/50	I/50 Nová Lehota - Handlová
I/64	I/64 Komjatice - Nitra
I/15	I/15 Stropkov, road relocation
I/66	I/66 Krupina - bypass
I/51	I/51 Levice - bypass
	Komárno, Danube bridge

I. class roads - construction/red projects	
Number of road	Section
I/50	I/50 Drietoma - bypass
I/74	I/74 Snina - Kolonica, road relocation
I/79	I/79 Slovenské Nové Mesto, bypass
I/18	I/18 Žilina - southeast

I. class roads - construction/red projects	
Number of road	Section
I/64	I/64 Žilina - southeast
I/61	I/61 Trenčín - southeast

I. class roads - upgrading and safety / green projects	
Number of road	Section
SSC	Landslides on I. class roads
SSC	Upgrading of selected sections of I. class roads in Trnava and Nitra regions
SSC	Upgrading of selected sections of I. class roads in Banská Bystrica region
SSC	Upgrading of selected sections of I. class roads in Trenčín and Žilina regions
SSC	Upgrading of selected sections of I. class roads in Prešov and Košice regions
SSC	Reconstruction of intersections on I. class roads
I/72	Tisovec town - Tisovec, Čertova dolina, reconstruction
I/65	Kremnica - Kremnické Bane
I/75	Sládkovičovo - Galanta
I/65	Kremnické Bane - border of the region
SSC	Measures to reduce noise pollution on I. class roads

I. class roads - upgrading and safety / yellow projects	
Number of road	Section
I/66	I/66 Závadka - Heľpa bypass, reconstruction

I. class roads - upgrading and safety / red projects	
Number of road	Section
I/11	Žilina - Slovak Republic / Czech Republic border, elimination of unsatisfactory parameters
I/12	Svrčinovec Slovak Republic / Poland border, elimination of unsatisfactory parameters

## **ANNEX 1.2**

### **Assessment of visions, objectives and priorities of SRVOND SR 2020**



## 1. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF THE ORGANISATION OF PUBLIC PASSENGER AND NON-MOTORISED TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VD1: Sustainable regional and urban mobility with higher share of public passenger transport and non-motorised transport in the modal split compared to the present.

Table 1 Evaluation of compliance of objectives and priorities of the organisation of public passenger and non-motorised transport

Strategic objective	Priority, specific objective	Environmental objectives								
		Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SD1	SD1.1	Achievement of the preferred status of public passenger and non-motorised transport compared to individual transport	1	+1	+1	0	0	0	0	0
	SD1.2	Provision of sufficient financial resources for sustainable and systematic operation, maintenance and renewal of vehicles and infrastructure of public passenger and non-motorised transport	0	+1	+1	0	0	0	0	0
	SD 1.3	Creating conditions for establishment of the primary role of railway in regional transport systems in areas with potential	1	+1	+1	+1	0	0	0	0
	SD 1.4	Integrated planning and contracting of public passenger transport service	2	+1	+1	0	0	0	0	0
	SD 1.5	Contracting of transport service defined according to the needs of passengers and quality standards, and with the aim to ensure its competitiveness compared to the individual transport	0	+1	+1	0	0	0	0	0

- +2 priority is in full compliance with EC
- +1 priority is in partial compliance with EC
- 0 no or weak link between the priority and EC
- 1 priority is in partial conflict with EC
- 2 priority is in non-compliance with EC
- ? specific solutions are required for evaluation of compliance

### Background

Organisational aspects of public passenger and non-motorised transport are of great importance for the setting of processes of the preparation, building and operation of the transport systems. The analysis performed within the SRVOND SR 2020 shows a number of moments that need to be addressed by the concerned measures.

An important factor is the fragmentation of competence in the area of public transport, public transport service is being contracted by a number of entities. Self-governing regions often contract the bus transport service in partial concurrence with the railway transport and do not intend to change this approach fundamentally. The co-ordination of individual transport subsystems is unsatisfactory, lacking strategies for regional multimodal transport solutions. The methodology



applies a different interpretation of the term "public interest", missing definitions of standards of the transport service.

Similarly to the area of transport infrastructure with missing transport model of Slovakia, public passenger transport is lacking an analogous exact document, which is - linked with the transport model - a transport service plan of SR.

Plans of transport services are also connected with the non-standard / fragmented structure of the data available on public passenger and non-motorised transport. The state, self-governing region or cities generally do not perform traffic surveys of the public passenger transport, do not use data from ticket sales and can not obtain adequate information from private bus operators. Traffic surveys are almost exclusively focused on the road traffic and only rarely on cycling and walking.

### ***Priorities, specific objectives and additional description of measures and project activities***

#### ***Achievement of the preferred status of public passenger and non-motorised transport compared to the individual transport***

Preferred status of public passenger and non-motorised transport within cities and their agglomerations, polycentric residential areas is a desirable state. The defined objective is to be achieved through measures aimed at revision of the legislation, technical standards supporting the public passenger transport and the non-motorised transport. There should be a support of the research focusing on the relationship between different transport modes, on planning and data collection, on continuity and interconnectedness with the public passenger and non-motorised transport. Measures should include projects for marketing support of the public passenger and non-motorised transport, there is an idea of an establishment of a body at the state level, which would comprehensively, at the conceptual and legislative level, deal with the public passenger transport. The priority also includes elaboration of strategic documents for the non-motorised transport.

In the project pipeline within the priority, there are projects aimed at the elaboration of strategic documents in the area of non-motorised transport.

#### ***Provision of sufficient financial resources for sustainable and systematic operation, maintenance and renewal of vehicles and infrastructure of public passenger and non-motorised transport***

Within the priority, there will be support of projects aimed at the evaluation and possible revision of the funding of self-governing regions, searching for possibilities of multi-source financing, evaluation and possible revision of identification and financing of the infrastructure, fare reductions, compensations in the public passenger transport and in the mass urban transport. Another subject of measures is the potential increase of budget assignment of taxes to cities and provision of higher proportion into the development and operation of mass urban transport and into support of the non-motorised transport.

Within the measure, there were no projects defined in the project pipeline.

#### ***Creating conditions for establishment of the primary role of railway in regional transport systems in areas with potential***

The subject of measure within the priority is the connection of infrastructure projects with real needs of carriers.

Within the priority, there were no projects defined in the project pipeline.

#### ***Integrated planning and contracting of public passenger transport service***

Measures aimed at the establishment of integrated transport systems and the integration of public passenger transport in the regions (BSK, TTSK, KSK, PSK, BBSK, ŽSK, TNSK) are planned to be implemented within the priority. There are also plans to establish integrated transport systems in Bratislava, Trnava, Košice, Prešov, Poprad - High Tatras, Banská Bystrica and Zvolen. Building of integrated transport system, with progressive implementation of integrated elements, is planned in Žilina, Trenčín and Martin. The establishment and building of integrated transport systems includes

a localisation context and therefore it is a part of SEA assessment of measures. Broader impact have measures taken towards the creation of the transport authority (authorities) for ordering services in the railway transport, suburban bus transport and urban mass transport, towards the introduction of integration elements, common information systems, common conditions of transport and common integrated tariffs, towards the coordination of mass urban transport with regional transport in urban areas and to the processing of regional and urban transport models.

As a part of the priority, projects have been defined in the project pipeline, aimed at the transport modelling and execution of traffic surveys focusing on the population mobility, at the software for traffic modelling, implementation of an integrated transport system in the High Tatras and at the creation of strategic documents in the area of the public passenger transport.

***Contracting of transport service defined according to the needs of passengers and quality standards, and with the aim to ensure its competitiveness compared to the individual transport***

Within the priority there are measures for the introduction of transport service standards and standards of transport service quality, for the introduction of mass urban transport organisation in accordance with the current principles of organisation of public transport and transport service standards. The measure will require control of standards and fundamental principles of the public passenger transport operation at the level of contractors or organisers of public passenger transport. Measures include increase of the level of maintenance of vehicles and infrastructure as a condition within the ordering of transport service.

Within the priority, there were no projects defined in the project pipeline.

***Evaluation of compliance of priorities and objectives with environmental objectives of the Environmental Report***

The vision for the organisation of public passenger and non-motorised transport is represented by the sustainable regional and urban mobility with a higher share of public passenger transport and non-motorised transport in the modal split compared to the present. In fact, this vision can be defined as a major vision applicable not only to the organisational problem area of public passenger and non-motorised transport.

In the context of urban area and agglomeration, where there is the highest concentration of population and thus the demand for the implementation of the transport process, the importance of efficient transport technologies (concerning the land take, energy consumption per passenger transported and technologies with the lowest proportion of pollutant emissions) is growing. Public passenger transport and the non-motorised transport meet the mentioned principle of efficiency in the urban areas and agglomerations. But only the logical operational interconnection of individual transport modes provides the synergy effect manifested in the quality of functioning of public transport, allowing to increase its attractiveness compared to the individual transport. Measures concerning the organisational problem area aim to prepare effective functioning of public transport systems and non-motorised transport in cities and regions. Organisational measures have a character of secondary, long-term, cumulative effect, the very principle of integration of transport systems is essentially based on an attempt to cumulate the positive aspects of individual transport modes. In cases when projects of integrated transport systems will be well elaborated, there is a realistic prospect of positive effect on the transport service of the territory. The public passenger transport and non-motorised transport will be competitive in the access of population to basic and transport services in cities and regions. Mass character of transportation in the public passenger transport could positively influence the social inclusion of the population.

Achievement of the preferred status of public passenger and non-motorised transport compared to the individual transport should have a moderate positive effect on the health of population as well as on the quality of air. This assumption is based on the fact that it is impossible to expect a major shift of performance from the individual car transport.

Equally positive effect should result also from the provision of sufficient financial resources for sustainable and systematic operation, maintenance and renewal of vehicles and infrastructure of

public passenger and non-motorised transport. Travelling by the public passenger transport is expected to get more attractive..

Creating conditions for establishment of the primary role of railway in regional transport systems in areas with potential is the basic precondition for the sustainable transport system, which will have moderate positive effect on the quality of air and on the health of population.

Integrated planning and contracting of public passenger transport service is a necessary step towards the systematisation of the ordering process, because concurrent environmentally unfriendly connections will be cancelled, what will have a slightly positive impact on the air quality and on the health of the population.

Contracting of transport service defined according to the needs of passengers and quality standards with the aim to ensure its competitiveness compared to the individual transport will have a similar effect as previous measures. This step is expected to improve the attractiveness of public transport compared to the individual car transport and the partial shift of performance from the individual transport, what will have a slightly positive impact on the public health as well as the air quality.

The assessment shows that activities proposed within assessed visions and objectives of SRVOND SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to basic, transport services;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to improve the safety of transport;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions.

Objectives and activities proposed within the assessed visions do not constitute a potential conflict with the environmental objectives of the Environmental Report.

## 2. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF THE OPERATION OF PUBLIC PASSENGER AND NON-MOTORISED TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VD2: Accessible, reliable, competitive and user-friendly public passenger transport and adequate relevant information.

Table 2 Evaluation of compliance of objectives and priorities of the operation of public passenger and non-motorised transport

Strategic objective		Priority, specific objective		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SD 2	Providing attractive offer of public transport, including high-quality and accessible transport information	SD 2.1	Defining standards for public transport service and for the quality of transport services	0	+1	+1	0	0	0	0	0	0
		SD 2.2	Improving quality of public passenger transport in order to be safe, environmentally friendly and competitive with the individual car transport	2	+2	+2	+1	0	0	0	0	0
		SD 2.3	Operational coordination of individual modes of public passenger transport	1	+1	+1	0	0	0	0	0	0
		SD 2.4	Ensuring the availability of information on the operation of public transport for passengers	1	+1	+1	0	0	0	0	0	0
		SD 2.5	Provision of modern tariff, information and dispatching systems	1	0	0	0	0	0	0	0	0

### Background

The area of public passenger and non-motorised transport is characteristic with the insufficient funding. From their budgets, self-governing regions are able to fund only basic transport service of the territory, including suburban areas with high demand for transport to cities. Cities with rail transport do not have enough funds for its maintenance.

Very adverse and long-term trend is the increasing share of the individual car transport in the modal split in cities and regions. Expansion of individual car transport has a negative impact on the public passenger transport and non-motorised transport as well. The non-motorised transport is gradually pushed out from roads by the car transport.

The performance of public passenger transport systems is currently limited. Insufficient frequency of trains was identified on the main route as well as on regional lines in urban agglomerations. During the peak traffic, the provided capacity of public passenger transport is insufficient, mainly in Bratislava, Košice and Prešov.

Suburban bus systems are organised according to the demand of passengers, underutilised connections are being abolished. It is resulting in not quite systematic arrangement of lines and confusion and opacity arising from the compensation of abolished connections. Similar situation was observed within mass urban transport of some cities as well. In some cities, mass urban transport systems are not operating on short cycle principle, the service of territory is not effective.

### Priorities, specific objectives and additional description of measures and project activities

### ***Implementation of standards for public transport service and for the quality of transport services***

Within the priority measures are planned, implementing standards of transport service by public passenger transport and quality standards of transport services.

Within the priority, there were no projects defined in the project pipeline.

### ***Improving quality of public passenger transport in order to be safe, environmentally friendly and competitive with the individual car transport***

Measures also include the introduction of additional services in suburban bus transport, improvement of staff conditions and the improvement of infrastructure and vehicles maintenance quality.

Within the priority, there were no projects defined in the project pipeline.

### ***Operational coordination of individual modes of public passenger transport***

The objective / priority includes planned measures for the establishment of a system timetable in the regional railway transport, to ensure the integration, harmonisation and coordination of suburban bus transport with the railway transport and systems of the mass urban transport, to ensure communication between operators for the coordination of integrated transport systems.

Within the priority, there were no projects defined in the project pipeline.

### ***Ensuring the availability of information on the operation of public transport for passengers***

Within the objective / priority, there are measures planned to improve the informedness of passengers and to improve the information and communication system, including components necessary for the hearing and visually impaired passengers. The information system should provide clear, complex, accurate, timely and accurate information and it should particularly provide information on delays, range of services, on fares and timetables with the possibility to obtain information through the Internet, with access available from mobile devices. The measures will be also aimed at the provision of access to off-line and on-line data concerning the organisation and operation of the public passenger transport service contracted from public funds and at the provision of real-time operation information.

There are projects included in the project pipeline within the priority, focusing on the upgrading of the dispatching management, upgrading of vehicle information and communication system, upgrade of information systems in vehicles, at stops, information devices for visually impaired passengers at stops and in vehicles.

### ***Provision of modern tariff, information and dispatching systems***

The objective / priority includes planned measures concerning the upgrade of tariff, information and communication system at railway stations, stops and in trains, in suburban bus transport and in the mass urban transport, measures for the building of intelligent stops and transport systems, measures for introduction of new forms of ticketing and deployment new payment media. The priority also includes measures to ensure the compatibility of existing systems in ITS, measures for simplification, unification and availability of the tariff system of bus and railway operators for passengers, utilisation of multifunctional transport cards. Supported will be projects within measures to provide quality, timely and complex traffic information at railway stations, to equip vehicles with communication equipment for management and support of the integration, to implement integrated dispatching centres of public passenger transport.

The project pipeline includes projects aiming at the establishment of an on-line ticketing, and at the tariff-information equipment of the integrated transport system, at the information and communication systems, equipment of vehicles with ticketing machines, central dispatching of public transport systems, expansion of self-service recharge of cards using ticket vending machines.

### ***Evaluation of compliance of priorities and objectives with environmental objectives of the Environmental Report***

The vision for the operation of public passenger and non-motorised transport is represented by the accessible, reliable, competitive and user-friendly public passenger transport and adequate relevant information. The part of measures with an impact on the operation of the public passenger transport, which has the character of planning, methodology and operational coordination, will have a positive, secondary, synergy and long term effect. Operational measures to inform passengers on the operation and will have a primary and positive effect, with regard to the impact on other transport modes even synergic effect and with regard to the life of information systems probably medium term effect. Measures to ensure the modern tariff, information and dispatching systems have the character of internal management structures of transport companies, it is possible to expect their secondary positive, medium-term impact. Measures of operational character will help to improve the quality of transport service of cities by means of the public passenger transport.

Through the definition of standards for public transport service and for the quality of transport services and the commitment of contractors to follow them, it is possible to expect the increase in the interest in the public passenger transport at the expense of individual car transport, what should have a slight positive impact on public health and air quality.

Improving quality of public passenger transport through its integration, improved planning and implementation of quality standards, in order to be safe, environmentally friendly and competitive with the individual car transport will have a direct impact on the increase in the attractiveness of public passenger transport, which will have a significant effect on the shift of performances from car transport towards the public passenger transport, what will result in the improvement of public health and air quality.

Operational coordination of different modes of public transport is a logistic solution, which involves the use of the strengths of individual modes for the best settings of the transport system. This should result in a slight improvement of public health and air quality.

Researchers predict a slightly positive effect the availability of information on the operation of public passenger transport for passengers on the health of population and quality of air, as there will be greater public awareness of benefits of the public passenger transport that will result in a positive effect on the growth of interest in this mode of transport.

Provision of modern tariff, information and dispatching systems should have a neutral effect on the public health and quality of the air.

The assessment shows that activities proposed within assessed visions and objectives of SRVOND SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to basic, transport services;
- to reduce the noise pollution effect on population;
- to improve the safety of transport;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions.

Objectives and activities proposed within the assessed visions do not constitute a potential conflict with the environmental objectives of the Environmental Report.



### 3. EVALUATION OF COMPLIANCE OF VISIONS, OBJECTIVES AND PRIORITIES OF THE INFRASTRUCTURE OF PUBLIC PASSENGER AND NON-MOTORISED TRANSPORT WITH ENVIRONMENTAL OBJECTIVES

Vision VD3: Infrastructure allowing the operation of high-quality integrated public passenger and non-motorised transport.

Table 3 Evaluation of compliance of objectives and priorities of the infrastructure of public passenger transport

Strategic objective		Priority, specific objective		Environmental objectives								
				Transport - settlement	Health	Air	Material resources	Soil	Water	Biodiversity	Landscape	Culture
SD 3	Improving the quality of public transport vehicle fleet and infrastructure of public passenger and non-motorised transport	SD 3.1	Ensuring low-floor or low-entry vehicle fleet in adequate quality, with high comfort for passengers and high energy efficiency	2	0	+1	0	0	0	0	0	0
		SD 3.2	Achieving high quality of terminals, transfer nodes and stops with minimisation of barriers and maximisation of compactness and efficiency	2	0	0	0	0	0	0	0	0
		SD 3.3	Ensuring preferred status of public passenger transport in urban areas	1	+1	+1	+1	0	0	0	0	0
		SD 3.4	Operation on a modern railway infrastructure with short travelling times and adequate density of barrier-free and well equipped railway stops and transfer terminals	1	0	0	0	0	0	0	0	0
		SD 3.5	Ensuring the quality and required extent of urban rail transport infrastructure	2	0	0	+1	0	0	0	0	0
		SD 3.6	Allowing the use of cycling for the purpose of transport in cities and villages with an emphasis on the connection to terminals and stops of public transport as well as to the transportation between villages	2	+1	+1	+1	0	0	0	0	0
		SD 3.7	Calming of traffic in suitable locations of urban areas, support of public awareness	1	0	0	0	0	0	0	0	0

#### Background

Infrastructure of public passenger and non-motorised transport is adversely affected by existing legislation and technical standards. Support of environmentally more friendly modes of transport is minimal or focused on the development of motoring. Transport infrastructure of cities includes insufficient number of elements preferring the operation of mass urban transport vehicles.

Vehicle fleets of public passenger transport are characteristic with obsolete fleet of vehicles, the hidden investment debt is particularly obvious in the rail mass urban transport.

Infrastructure of the public passenger transport should be considered as incomplete. There is a particular lack of transfer terminals, and transfer nodes are designed inappropriately, structural and technical condition of stops is unsatisfactory. In Bratislava, Banská Bystrica, Košice and Žilina, there are some unconnected parts of the trolleybus system. A specific feature of Bratislava is the absence of tangential tramways.

Missing and unconnected cycling paths in most cities and regions do not allow to use the bicycle as a fully-fledged means of transport used for transport service.

The incorrect approach to the solution of mobility problems in cities is accentuated by an emphasis on the improvement of the capacity of roads for the individual car transport, which is related to the absence of parking lots included in the park&ride system.

Insufficient maintenance has resulted in a number of spot and section limitations on tramways, which can lead to the operation shutdown. The maintenance of mass urban transport vehicles is set inappropriately.

#### ***Priorities, specific objectives and additional description of measures and project activities***

##### ***Ensuring low-floor or low-entry vehicle fleet in adequate quality, with high comfort for passengers and high energy efficiency***

Under the objective / priority, measures are planned, aimed at the procurement of modern public passenger transport vehicles (railway wagons, trams, trolleybuses, buses, vehicles with autonomous traction with very low emissions powered by gas, electricity or hybrid engine), renewal of the public passenger transport vehicle fleet with respect to environmental friendliness, accessibility and features for hearing and visually impaired passengers. Measures also include the upgrading of existing rail vehicles used in the mass urban transport

As a part of the priority, the project pipeline includes projects aimed at the renewal of the fleet of trams, trolleybuses, at the purchase of energy-efficient and low-floor trolleybuses and trolleybuses with an auxiliary propulsion, at the purchase of hybrid buses, gasification of buses and purchase of duobuses (hybrid trolleybus). It also includes projects of the purchase of electric and diesel units within the integrated transport system, for the railway passenger transport operator - ZSSK.

##### ***Achieving high quality of terminals, transfer nodes and stops with minimisation of barriers and maximisation of compactness and efficiency***

There are planned measures focusing on the construction and upgrading of public passenger transport transfer nodes, repairs and upgrading of stops and stations of public transport, including access roads with regard to the barrier-free accessibility and features for hearing and visually impaired passengers and passenger comfort, on the establishment of park&ride parking lots, parking for taxi and areas / shelters for bicycles and motorcycles at stops and stations (terminals) of major lines and lines of public passenger transport, on the building of bus stop bays at bus stops in villages with longer stays of buses.

The project pipeline of the priority includes projects of the construction of terminals (public transport transfer nodes, regional bus, train) of integrated passenger transport (TIOP), projects of the construction of transfer terminals and park&ride parking near the major lines and lines of public transport. In addition to the construction of new facilities, projects are also aimed at the reconstruction and upgrading of transfer nodes and stops of the public passenger transport - even for the purpose of making it available to disabled passengers, and projects aimed at the improvement of the comfort of bus stops.

##### ***Ensuring preferred status of public passenger transport in urban areas***

There are measures envisaged under the objective / priority, aimed at the charging of parking in cities to regulate the number of passenger cars, at the implementation of preference of public passenger transport vehicles on roads and intersections and related adjustments of traffic lights and at the building of dedicated lanes for buses and trolleybuses of the mass urban transport.

The project pipeline of the priority includes projects aimed at upgrading of traffic dispatching, projects of the establishment of dynamic preference of mass urban transport at the traffic lights, street revitalisation projects to prioritise the public passenger and non-motorised transport and projects for building of separate lanes for cyclists and public passenger transport.

##### ***Operation on a modern railway infrastructure with short travelling times and adequate density of barrier-free and well equipped railway stops and transfer terminals***

Measures planned under the objective / priority are focusing on the upgrading of railway infrastructure for regional transport to increase the capacity and to reduce the travelling times. Measures include activities aimed at the raising of the level of station and track signalling equipment, improvement of the infrastructure maintenance and organisation of activities within operation restraints, adjustment of the infrastructure according to the requirements of short cycle transport (building of shunts, double-tracking of lines, etc.), upgrading of centres for performance of the sanitary and technical maintenance.

Important activities include reconstruction and upgrading of railway stops and stations as well as the establishment of new rail stops.

The project pipeline of the priority includes projects concerning the building of workplaces for technical and sanitary maintenance of ZSS and projects for building new railway stations and stops. Within the upgrading and reconstruction of existing infrastructure, there are planned projects of railway stations and stops, including the optimisation of their location.

#### ***Ensuring the quality and required extent of urban rail transport infrastructure***

Measures planned under the objective / priority are aimed at the construction of new mass urban transport routes, missing turning circles for mass urban transport vehicles, at the construction of missing interconnecting track sections in existing tram and trolleybus network, at the reconstruction, upgrading or extension of existing tram and trolleybus lines. Included measures are focusing on the upgrading of mass urban transport infrastructure, on the construction of technical base for public transport vehicles, on the improvement of the level of maintenance of the rail infrastructure and vehicles.

The project pipeline of the priority includes projects for upgrading of maintenance equipment for the mass urban transport, construction and upgrading of existing tram and trolleybus lines and turning circles and upgrading of traction sub-stations.

#### ***Allowing the use of cycling for the purpose of transport in cities and villages with an emphasis on the connection to terminals and stops of public transport as well as to the transportation between villages***

Measures planned under the objective / priority are to ensure effective coordination of cycling among the state, self-governing regions, cities, municipalities and non-governmental organisations and to ensure its effective management.

The goal of measures is the construction, upgrading, maintenance and operation of the cycling infrastructure. Planned measures are going to enable the use of cycling for the purpose of transport in cities and villages, more effective use of existing roads through the designation of the area for cyclists, setting up of space for cyclists within the existing roads by more appropriate distribution of road space. The support will be provided to the use of existing infrastructure (e.g. disused railway lines, tertiary roads) for cycling and the building of additional cycling infrastructure.

The project pipeline within the priority includes particularly projects of the implementation of cycling paths in cities and agglomerations, with primary use for transport service, projects of cycling arteries in regions with primary use for free time biking. There are also projects for the building of bicycle lanes on II. class and III. class roads, including the development of project documentation and low cost implementation of cycling in urban areas.

#### ***Calming of traffic in suitable locations of urban areas, support of public awareness***

Measures planned under the objective / priority are aimed at the elaboration of general plans for non-motorised transport, development of design manuals of streets, at raising awareness and increasing the safety of vulnerable road users.

There are also measures for the revitalisation of streets in order to prioritise the public passenger and non-motorised transport, or for setting up of zones with calmed traffic, implementation of refurbishment works to calm traffic, to ensure improved safety of pedestrians, to remove barriers for non-motorised transport and for building and upgrading of traffic playgrounds.

The project pipeline within the measure includes projects for the improvement safety and traffic calming in cities, projects for revitalisation of squares and public areas and a project of a traffic playground for children.

#### *Evaluation of compliance of priorities and objectives with environmental objectives of the Environmental Report*

The vision for the area of the infrastructure of public passenger and non-motorised transport is represented by the infrastructure allowing the operation of high-quality integrated public passenger and non-motorised transport. Just like within the area of measures concerning organisation of the public passenger transport, the major idea in the area of infrastructure is the integration of individual modes of public passenger transport into a one logically interconnected transport system of a city, agglomeration or region. Measures to ensure the vision and objectives have a relatively diverse character, their assessment must therefore be carried out separately.

Measures aimed at the renewal of public passenger transport vehicle fleet (trams, trolleybuses, purchase of energy-efficient and low-floor vehicles) have a high potential to directly address the travelling public in relation to the improvement of the culture of travelling. Their benefits will include a primary positive effect on the improvement of attractiveness of public passenger transport, its effect is likely to be mid-term - depending on the maintenance and on the length of high-quality serviceability of new vehicles.

Ensuring low-floor or low-entry vehicle fleet in adequate quality, with high comfort for passengers and high energy efficiency will have a slightly positive effect on the air quality and in terms of health, this measure is neutral, since it only increases the comfort of travelling.

Construction of a new and upgrading of existing infrastructure of stops and terminals for public passenger transport will have a positive, primary and long-term impact on the culture of travelling by the public passenger transport. Preference of buses and trolley buses at intersections seen as a separate activity is meaningful when there are available lanes dedicated for public transport vehicles. This type of actions, implemented with regard to the said aspect, will positively and directly affect travelling times of public passenger transport vehicles. The preference will result in increased competitiveness of the public passenger transport with the individual car transport within the congested road network of large and medium cities in Slovakia.

Achieving high quality of terminals, transfer nodes and stops with minimisation of barriers and maximisation of compactness and efficiency will not affect the air quality or health of the population, as the measure is focusing only on the comfort of travelling.

Direct and positive long-term impact, related to the construction of new and the improvement of the existing rail infrastructure of mass urban transport, could have an effect on the increase of the number of passengers using the rail mass urban transport. The effect of upgrading and service projects of rail mass urban transport will be secondary, resulting in the reduction of system failures.

Upcoming upgrading projects in Bratislava and Košice and the involvement of railway lines in integrated systems interconnected with the mass urban transport will simplify transport service in cities, particularly in relation to the external origin and destination transport in the regional catchment area. Positive impact will be of synergistic and long-term aspect.

Quality cycling infrastructure is a prerequisite for the implementation of cycling within the modal split in cities and agglomerations. In the regional context, its effectiveness is limited by the length of regular trips with the purpose of commuting to work and school. Broadly formulated measure of the support of cycling infrastructure (cycling paths, lanes, facilities) through the implementation projects will have a positive effect on the growth of the share of cycling trips. An important aspect will be the increase of safety cycling, which can be positively affected by the implementation of separate cycling paths, and dedicated lanes for cyclists. Impact of the implementation of mentioned projects is to be assessed very positively, with the assumption of a long-term effect. Similarly to the previous measure, allowing the use of cycling for the purpose of transport in cities and villages with an emphasis on the connection to terminals and stops of public transport as well as to the transportation between villages, will have a slightly positive impact on the air quality and public health, as there are expectations of the decrease in the attractiveness of individual car transport.

Measures aimed at the calming of traffic in urban areas represent a response to the need to return a human dimension into the city centres, and their residential areas. In the past, the environment and the context of streets in city centres was formed for the movement of people as pedestrians. Over time, cities have adapted to the interest of people in using various means of transport, of which the automobile transport in particular took the urbanised area previously used for different purposes. The effort to create a more cultured, safer and environmentally more friendly urban environment is reflected in measures, whose implementation will have a positive and long-term effect. However, the primary objective of traffic calming measures will not be the improvement of the transport service parameters or the access to basic services and transport services. Provision of the preference of public passenger transport in urban areas will have a moderate positive impact both on the air quality and on the health of the population, since there is an assumption of a shift of performance from individual car transport towards the public passenger transport.

The measure aimed at the operation on a modern railway infrastructure with short travelling times and adequate density of barrier-free and well equipped railway stops and transfer terminals should have a neutral impact on the quality of air and the health of population, because this measure will primarily affect the comfort of travelling.

Ensuring the quality and required extent of urban rail transport infrastructure should also have a neutral effect, as this measure only affects the comfort of travelling as well.

Calming of traffic in suitable locations in urbanized areas might have a positive impact on the public health in terms of the reduction of accidents, the global impact on health and air quality, however, is neutral.

The assessment shows that activities proposed within assessed visions and objectives of SRVOND SR 2020 have the potential to support environmental objectives set out in the Environmental Report:

- to improve the access to basic, transport services;
- to reduce the noise pollution effect on population;
- to reduce the level of air pollution in residential areas;
- to increase the safety of transport;
- to reduce the production of emissions from transport;
- to reduce the production of greenhouse gas emissions;
- to increase energy resources efficiency;
- to preserve the cultural heritage.

No significant non-compliance with environmental objectives set in the Environmental Report was identified in any case, given that the measures laid down in the environment legislation are implemented.

## **ANNEX 2.1**

### **Assessment of SPRDI SR 2020 road transport measures**





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Table 1 Distribution of the project sections of motorways and expressways into assessed territorial sectors

Motorways and expressways - construction / green projects				
Territorial sector		Project		
Number	Localisation	Number	Road	Section
2	MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin	1	D1	Hričovské Podhradie - Lietavská Lúčka (phase 1 and phase 2)
		2	D1	Feeder Lietavská Lúčka - Žilina
		3	D1	Lietavská Lúčka - Višňové - Dubná Skala (phase 1 and phase 2)
3	MI D1 and R3 Martin – MI D1 and R3 Hubová	4	D1	Turany - Hubová
4	MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová	5	D1	Hubová - Ivachnová (phase 1 and phase 2)
6	MI D1 and R4 Prešov západ – MI D1 and R2 Košické Oľšany - Bidovce	6	D1	Prešov západ - Prešov juh
		7	D1	Budimír - Bidovce
8	MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec	8	D3	Žilina Strážov - Žilina Brodno (phase 1 and phase 2)
		9	D3	Žilina Brodno - Kysucké Nové Mesto
		10	D3	Kysucké Nové Mesto - Oščadnica
		11	D3	Čadca Bukov - Svrčinovec
9	MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland	12	D3	Svrčinovec – Skalité, half profile (phase 1 and phase 2)
13	MI D1 and R2 Chocholná – EI R2 and R8 Brezolupy – Pravotice	13	R2	Mníchova Lehota - Ruskovce
16	Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany	14	R2	Rožňava - Jablonov nad Turňou (Soroška)
		15	R2	Košice, Šaca - Košické Oľšany
21	MI D3 and R5 Svrčinovec - state border SR/Czech Republic	16	R5	Svrčinovec - state border SR/Czech Republic
22	MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	17	R6	Mestečko - Púchov
Motorways and expressways - construction via PPP / green projects				
10	MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria	18	D4	Bratislava Jarovce – Ivanka pri Dunaji sever - Rača
23	MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)	19	R7	Bratislava Ketelec - Bratislava Prievoz
		20	R7	Bratislava - Dunajská Lužná
		21	R7	Dunajská Lužná - Holice

Explanatory notes: MI - motorway interchange, EI - expressway interchange

Motorways and expressways - construction / yellow projects				
Territorial sector		Project		
Number	Localisation	Number	Road	Section
7	Bidovce – Vyšné Nemecké – state border SR/Ukraine	22	D1	Bidovce - Dargov
		23	D1	Dargov - Pozdišovce
		24	D1	feeder Michalovce
5	MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ	25	D1	Feeder Spišská Nová Ves II. stage
8	MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec	26	D3	Oščadnica – Čadca Bukov, 2 <sup>nd</sup> profile (Horelica tunnel)
12	EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka	27	R1	Sielnica - interchange adjustments
13	MI D1 and R2 Chocholná – EI R2 and R8 Brezolupy – Pravotice	28	R2	D1 interchange - Mníchova Lehota
14	Pravotice – EI R2 and R1 Žiar nad Hronom juh	29	R2	Pravotice - Dolné Vestenice
		30	R2	Dolné Vestenice - Nováky
		31	R2	Nováky - Prievidza - Žiar nad Hronom
15	EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany	32	R2	Zvolen západ - Zvolen východ
		33	R2	Kriváň - Lovinobaňa
		34	R2	Lovinobaňa - Ožďany
16	Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany	35	R2	Ožďany - Zacharovce
		36	R2	Zacharovce - Bátka
		37	R2	Bátka - Figa
		38	R2	Tornaľa - Gombasek
17	MI D1 a R3 Hubová – Trstená – state border SR/Poland	76	R3	Tvrdošín - Nižná
		39	R3	Nižná - Dlhá nad Oravou
		40	R3	Dlhá nad Oravou - Sedliacka Dubová
		41	R3	Oravský Podzámok - Dolný Kubín
18	MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie	42	R3	Martin - Rakovo

Motorways and expressways - construction / yellow projects				
Territorial sector		Project		
Number	Localisation	Number	Road	Section
20	MI D1 and R4 Prešov západ – Svidník – state border SR/Poland	43	R3	Rakovo - Horná Štubňa
		44	R3	Horná Štubňa - Šášovské Podhradie
		45	R4	Prešov northern bypass
		46	R4	state border Poland/SR - Hunkovce
		47	R4	Ladomírová - Hunkovce
		48	R4	Svidník - Lomné
		49	R4	Lomné - Hanušovce nad Topľou
		50	R4	Hanušovce nad Topľou – Kapušany
22	MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	51	R6	state border SR/Czech Republic - Mestečko - Púchov
23	MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)	52	R7	Holice - Dunajská Streda
24	EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	53	R7	Dunajská Streda - Nové Zámky

Continuation of table

Motorways and expressways - construction / red projects				
Territorial sector		Project		
Number	Localisation	Number	Road	Section
1	MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava	54	D1	Bratislava - Trnava, Triblavina interchange
		55	D1	Bratislava - Senec, extension to 6 lanes
		56	D1	Senec - Blatné, Blatné interchange
		57	D1	Blatné - Trnava, extension to 6 lanes
5	MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ	58	D1	Studenec - Beharovce (completion of interchange)
		59	D1	Behárovce - Branisko, 2 <sup>nd</sup> profile (Branisko tunnel)
7	Bidovce – Vyšné Nemecké – state border SR/Ukraine	60	D1	D1 Pozdišovce - state border SR/Ukraine
10	MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever –	(18 PPP)	D4	Bratislava Jarovce – Ivanka pri Dunaji sever – Rača

Motorways and expressways - construction / red projects				
Territorial sector		Project		
Number	Localisation	Number	Road	Section
	MI D4 and D2 Stupava juh – state border SR/Austria	61	D4	Rača interchange– Záhorská Bystrica
		62	D4	Devínska Nová Ves - state border SR/Austria
11	MI D4 and R1 Most pri Bratislave – EI R1 Sered'	63	R1	Most pri Bratislave - Vlčkovce
12	EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka	64	R1	Banská Bystrica - Slovenská Ľupča
		65	R1	Slovenská Ľupča - Korytnica
		66	R1	Korytnica - Ružomberok
16	Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany	67	R2	Gombasek - Rožňava
		68	R2	Jablonov nad Turňou - Včeláre
		69	R2	Včeláre - Košice, Šaca
17	MI D1 a R3 Hubová – Trstená – state border SR/Poland	70	R3	Dolný Kubín - D1 interchange
19	EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary	71	R3	Zvolen - Šahy
23	MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – Nové Zámky	(19 PPP)	R7	Bratislava Ketelec - Bratislava Prievoz
		(20 PPP)	R7	Bratislava - Dunajská Lužná
		(21 PPP)	R7	Dunajská Lužná - Holice
24	EI R7 and I/63 Dunajská Streda (Kútники) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	72	R7	Nové Zámky - Čaka
		73	R7	Čaka - Veľký Krtíš
		74	R7	Veľký Krtíš - Lučenec
25	EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy	75	R8	Nitra - R2 interchange

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Table 2 Environmental objectives, indicators, score

1/ Strategic transport and settlement aspects					
Number of criteria	Objective:→	Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is the localisation of the transport infrastructure (TI) according to SPRDI SR 2020 supporting the access to basic and transport services, to the market within the transport regions?	Localisation of TI in the context of transport and development axes, and transport centres/settlement core areas/polycentric systems	TI on the link between centres/settlement core areas/polycentric systems in the corridor of major axes	TI one centre, secondary axes	TI outside major centres and major axes
2	Is the localisation of the TI according to SPRDI SR 2020 supporting the effectiveness of transport service in Slovakia?	Share of TI routes in the transport service with accessibility within 15 minutes in % of population of SR	Highest values	Lowest values	
3	Is the localisation of TI according to SPRDI SR 2020 supporting the settlement cohesion with significant settlement systems abroad?	Population of regions that represent targets of TI beyond the borders of SR, density of their population, classification of regions within the structure of settlements (last two sections from the border?)	Highest values	Lowest values	
4	What is the prerequisite for an efficient use of capacity of planned TI according to SPRDI SR 2020 with regard to new land take claims?	Projected road traffic volume on existing roads in corridors of planned motorways and expressways in 2020 and 2040	Projected AADT values for 4-lane road in 2020	Projected AADT values for 4-lane road in 2040	Projected AADT values for 2-lane road in 2040



Table continuation

<b>2/ Public health</b>					
Number of criteria	Objective:→	To reduce the level of negative impacts of the transport sector on the health of population			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is the localisation of TI supporting the reduction of the accident rate?	Density of road accidents and number of black spots on roads with the future shift of traffic volume to planned TI	*+2 = 27,17 to 10,93 *+1 = 10,93 to 7,29	*7,29 to 0	
2	Is the localisation of TI supporting the reduction of noise level and air pollution in settlements?	Proportion of bypasses of cities and villages reducing the direct contact of the original road with settlement	**+2 = 60,61 to 21,59 **+1 = 21,59 to 10,42	**10,42 to 0	
<b>3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs</b>					
Number	Objective:→	To minimise interferences with protected nature and landscape areas			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is there a contact with protected areas in protection degree 2 to 5 in national system of protected areas?	The number and intensity of interferences with protected areas within the national system		No interference	Highest values
2	Is there a contact with Natura 2000 sites?	The number and intensity of interferences with Natura 2000 sites		No interference	Highest values
3	Are the TSES elements affected?	The number and intensity of interferences with TSES elements		No interference	Highest values
4	Will the implementation of TI projects cause a take of best quality soils and forests with a special function?	Take of the best quality soils and forests with a protective function		No land take	Extensive take of best quality soils in the area and forests with protective and special function
5	Is the implementation of TI projects causing an increase in the risk of the rock environment instability?	Interference with unstable or geologically potentially unstable area	Implementation of TI significantly reduces the risk	No risk	Significant risk of the rock environment instability
6	Will the implementation of TI	Interference with groundwater		No interference	Significant interference with the

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	projects affect the water management interests in the area?	protection zones and protected water management areas			threat to significant quantities of drinking water
7	Will the implementation of TI projects cause an interference with protection zones of healing and mineral water sources?	Interference with protection zones of healing and mineral water sources		No interference	Potential significant interference requiring implementation of measures

### Explanatory notes:

The assessment includes motorways, expressways and I. class roads with planned investment projects within SPRDI SR 2020

### Scope of impact evaluation

- 2 significant negative impact
- 1 slightly negative impact, reducible by measures
- 0 zero or negligible impact
- +1 slightly positive impact
- +2 significant positive impact
- ? not enough information for evaluation
- X no relevant section

### Scope of Natura 2000 impacts evaluation

- 2 significant negative impact (very significant impact)
- 1 slightly negative impact (less significant impact)
- 0 zero impact (non-significant impact)
- 1? Probably less significant impact, it is necessary to confirm it or to exclude the significant negative impact through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)
- 2? Probably less significant impact, it needs to be confirmed or excluded through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)
- 2+ Significantly negative impact determined through an appropriate assessment and where suggested technical measures reduced the significance within an additional assessment to -1

### Abbreviations:

KE/PO – core settlement area, as a part of a core settlement area following cities are mentioned: BA - Bratislava, ZA – Žilina, KE – Košice, TT – Trnava, NR – Nitra, TN – Trenčín, BB – Banská Bystrica, PO – Prešov, MT – Martin, ZV – Zvolen, NZ – Nové Zámky, KN – Komárno, PD – Prievidza, PU – Púchov, PB – Považská Bystrica, RK - Ružomberok, DK – Dolný Kubín, LM – Liptovský Mikuláš, PP – Poprad, SN – Spišská Nová Ves, MI – Michalovce, VT - Vranov nad Topľou, HE – Humenné, LC – Lučenec, RS – Rimavská Sobota

ZA/MT- if there is no other core settlement area after the dash, it is concerning a localisation directed towards the state border, an area with no Slovak core settlement area of level 1 or 2.

Katowice - represents the centre and the entire border region of Silesian Voivodeship; Vienna, Budapest, Miskolc, Uzhgorod, Rzeszow, Krakow, Ostrava, Zlin, Brno have analogous meaning

TI - transport infrastructure, DS – Dunajská Streda

BA-ZA-KE northern west - east corridor, BA-ZV-LC-KE central west - east corridor, BA-DS-NZ-LC-KE southern west - east corridor

Skalité/Svrčinovec-ZA-MT-ZV-Šahy western north - south corridor, Trstená-DK-RK-BB-ZV-Šahy central north - south corridor, Svidník-PO-KE-Milhost' eastern north - south corridor

\*+2 = 27,17 to 10,93 – see Table 3

\*\*+2 = 60,61 to 21,59 – see Table 4

Table 3 Situation and trend in traffic accident rate on the network of roads substituting the function of motorways and expressways

Territorial sector	Assessed road	Period 2010-2012		Period 2008-2010	Reference value [BS+2*RBS+DoTA]
		black spots	recurring black spots	density of traffic accidents	
		[number]	[number]	[accidents per km per year]	
1	D1	2	0	6.76	8.76
2	I/18	10	1	7.32	19.32
3	I/18	4	0	4.18	8.18
4	I/18	5	0	4.58	9.58
5	I/18	8	1	3.66	13.66
6	I/68, I/50	1	0	9.93	10.93
7	I/50	3	0	2.17	5.17
8	I/11	18	1	7.17	27.17
9	I/12	0	0	1.99	1.99
10	D1, D2	0	0	4.81	4.81
11	I/61, I/62	2	0	6.76	8.76
12	I/66, I/59	4	0	1.55	5.55
13	I/50	4	0	3.29	7.29
14	I/50	5	0	2.91	7.91
15	I/50	7	0	3.38	10.38
16	I/50	13	0	1.94	14.94
17	I/59, I/70	8	0	2.16	10.16
18	I/65	6	0	2.40	8.40
19	I/66	8	0	1.50	9.50
20	I/73, I/18, I/15	13	0	3.41	16.41
21	I/11	1	0	6.56	7.56
22	I/49	2	0	0.65	2.65
23	I/63	15	0	1.74	16.74
24	I/63, I/64, I/75	10	0	1.24	11.24
25	I/64, II/579	6	0	1.74	7.74

**Explanatory notes:**

BS - black spots, RBS - recurring black spots, DoTA - density of traffic accidents

Table 4 Localisation of the planned network of motorways and expressways with regard to the settled territory

↓Type of road	↓Road number	↓Road length	↓Total road length in (substit.roads+ME preparation)	↓Road length in built-up area	↓Road length excl. shifted transp. from built-up area	↓Share of roads in built-up area	↓Share of roads excl. shifted transp. from built-up area	Score
unit→		[km]	[km]	[km]	[km]	[%]	[%]	
Territorial sector No.1: MI D1 and D2 Bratislava Pečňa - MI D1 and R1 Trnava, (*extension of existing road to 6-lane layout cannot be assessed as a shift of transport volume)								
Roads substit. function of ME	D1	50.78	-	0.00	-	0.00	-	0
ME in preparation	*D1	36.11		0.00		0.00		
Territorial sector No.2: MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin								
Roads substit. function of ME	I/18	24.41	49.24	11.20	9.26	45.88	18.81	1
ME in preparation	D1	24.83		1.94		7.81		
Territorial sector No.3: MI D1 and R3 Martin – MI D1 and R3 Hubová								
Roads substit. function of ME	I/18	17.44	31.02	5.11	5.11	29.30	16.47	1
ME in preparation	D1	13.58		0.00		0.00		
Territorial sector No.4: MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová								
Roads substit. function of ME	I/18	17.48	32.76	5.95	5.19	34.04	15.84	1
ME in preparation	D1	15.28	-	0.76	-	4.97	-	
Territorial sector No.5: MI D1 and R1 Ivachnová - MI D1 and R4 Prešov západ (*extension of existing road to 4-lane layout in the Branisko tunnel section cannot be assessed as a shift of transport volume)								
Roads substit. function of ME	D1	7.3	-	0.00	-	0.00	-	0
ME in preparation	*D1	7.3		0.00		0.00		
Territorial sector No.6: MI D1 and R4 Prešov západ – MI D1 and R2 Košické Oľšany - Bidovce								
Roads substit. function of ME	I/68, III/050201	22.30	44.60	11.43	9.61	51.26	21.55	1
ME in preparation	D1	22.30		1.82		8.16		

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Table continuation

↓Type of road	↓Road number	↓Road length	↓Total road length in (substit.roads+ME preparation)	↓Road length built-up area in	↓Road length excl. shifted transp. from built-up area	↓Share of roads in built-up area	↓Share of roads excl. shifted transp. from built-up area	Score
unit→		[km]	[km]	[km]	[km]	[%]	[%]	
Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine								
Roads substit. function of ME	I/50	75.30	124.00	44.65	43.25	59.30	34.88	2
ME in preparation	D1	48.70		1.40		2.87		
Territorial sector No.8: MI D1 and D3 Hrič. Podhradie - MI D3 and R5 Svrčinovec (*in sections Žilina - Brodno, Kysucký Lieskovec up to Čadca - Bukov is the route of D3 motorway situated in the route of existing road I/11, it is generally concerning its extension to 4-lane layout with parameters of a motorway that cannot be assessed as a shift of transport volume)								
Roads substit. function of ME	I/18, I/11	29.97	-	17.41	-	58.09	-	0
ME in preparation	*D3	36.00		7.62		21.17		
Territorial sector No.9: MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland								
Roads substit. function of ME	I/12	14.85	27.65	12.30	12.30	82.83	44.48	2
ME in preparation	D3	12.80		0.0		0.00		
Territorial sector No.10: MI D4 and D2 Bratislava Jarovce - state border SR/Austria								
Roads substit. function of ME	D1, D2	38.73	85.16	18.97	17.24	48.98	20.24	1
ME in preparation	D4	46.43		1.73		3.73		
Territorial sector No.11: MI D4 and R1 Most pri Bratislave – EI R1 Sered'								
Roads substit. function of ME	I/61, I/62	43.00	85.14	12.77	12.77	29.70	15.00	1
ME in preparation	R1	42.14		0.00		0.00		
Territorial sector No.12: EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka (*to a great extent R1 is designed in a narrow territorial corridor of Revúcka dolina and Korytnická dolina valleys as the original road I/59)								
Roads substit. function of ME	I/59	55.30	114.30	18.22	9.71	32.94	8.50	0
ME in preparation	*R1	59.00		8.51		14.42		
Territorial sector No.13: MI D1 and R2 Chocholná – EI R2 and R8 Brezolupy – Pravotice								
Roads substit. function of ME	I/50	35.00	69.95	11.51	7.24	32.89	10.35	0
ME in preparation	R2	34.95		4.27		12.22		



Table continuation

↓Type of road	↓Road number	↓Road length	↓Total road length in (substit.roads+ME preparation)	↓Road length in built-up area	↓Road length excl. shifted transp. from built-up area	↓Share of roads in built-up area	↓Share of roads excl. shifted transp. from built-up area	Score
unit→		[km]	[km]	[km]	[km]	[%]	[%]	
Territorial sector No.14: Pravotice – EI R2 and R1 Žiar nad Hronom juh								
Roads substit. function of ME	I/50	68	128.07	25.13	22.07	36.96	17.23	1
ME in preparation	R2	60.07		3.06		5.09		
Territorial sector No.15: EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany								
Roads substit. function of ME	I/50	73.00	145.04	19.07	18.27	26.12	12.60	1
ME in preparation	R2	72.04		0.80		1.11		
Territorial sector No.16: Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany								
Roads substit. function of ME	I/50	147.00	275.16	23.98	22.99	16.31	8.36	0
ME in preparation	R2	128.16		0.99		0.77		
Territorial sector No.17: MI D1 a R3 Hubová – Trstená – state border SR/Poland								
Roads substit. function of ME	I/59	53.53	91.21	23.34	22.98	43.61	25.20	2
ME in preparation	R3	37.68		0.36		0.96		
Territorial sector No.18: MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie								
Roads substit. function of ME	I/65	61.40	120.93	24.64	24.29	40.13	20.09	1
ME in preparation	R3	59.53		0.35		0.59		
Territorial sector No.19: EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary								
Roads substit. function of ME	I/66	78.70	149.34	24.09	22.93	30.61	15.35	1
ME in preparation	R3	70.64		1.16		1.64		
Territorial sector No.20: MI D1 and R4 Prešov západ – Svidník – state border SR/Poland								
Roads substit. function of ME	I/18, I/73, I/15	75.20	155.98	35.71	33.08	47.49	21.21	1
ME in preparation	R4	80.78		2.62		3.31		

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Table continuation

↓Type of road	↓Road number	↓Road length	↓Total road length (substit.roads+ME in preparation)	↓Road length in built-up area	↓Road length excl. shifted transp. from built-up area	↓Share of roads in built-up area	↓Share of roads excl. shifted transp. from built-up area	Score
unit→		[km]	[km]	[km]	[km]	[%]	[%]	
Territorial sector No.21: MI D3 and R5 Svrčinovec - state border SR/Czech Republic								
Roads substit. function of ME	I/11	3.30	5.28	3.20	3.20	96.97	60.61	2
ME in preparation	R5	1.98		0.00		0.00		
Territorial sector No.22: MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic								
Roads substit. function of ME	I/49	24.80	47.80	13.20	10.32	53.23	21.59	2
ME in preparation	R6	23.00		2.58		11.22		
Territorial sector No.23: MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)								
Roads substit. function of ME	I/63	44.15	89.48	15.23	10.23	34.50	11.43	1
ME in preparation	R7	45.53		3.09		6.82		
Territorial sector No.24: EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec								
Roads substit. function of ME	I/63, I/64, I/75	227.85	401.43	74.53	72.79	32.71	18.13	1
ME in preparation	R7	173.58		0.89		0.51		
Territorial sector No.25: EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy								
Roads substit. function of ME	I/64, II/592	58.40	113.29	37.981	36.74	65.04	28.10	2
ME in preparation	R8 green variant	54.89		1.24		2.26		

## Explanatory notes:

ME - motorways and expressways in sections with planned construction, substit. roads - sections of roads, which are currently substituting the function of motorways and expressways in preparation

The contribution of the shift of transport from settled areas, arising from the implementation of ME in preparation, is expressed by absolute values of the length of roads substituting the function of ME located in built-up areas, by absolute values of the length of ME in preparation located in built-up areas and through absolute values of length of roads (substit. roads + ME in preparation) with a future shift of transport from the built-up area due to the construction of ME. Relative values are shown in the same structure, whereby the resulting relative value of the share of shifted transport volume from the built-up areas on roads substituting the function of ME and on prepared ME is the decisive criterion.

Table 5 Environmental assessment of territorial sectors

Table 6 Environmental assessment of territorial sectors

Motorway D1	Territorial sector No.1 MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava	TEN-T: section of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Part of the major transport and development axis of SR, BA/TT	+2	55, 56, 57	
2	BA-ZA-KE, maximum value west - east	+2	55, 56, 57	
3	X	0		
4	6 lanes	+2	55, 56, 57	
	Total	6		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	The implementation of infrastructure projects in the territorial sector will have probably slightly positive impact on the reduction of traffic accident rate. There are two black spots in the route of concerned projects, whereby through the construction of the concerned section, the reduction of accident rate can be expected.	+1	55, 56, 57	
2	Given that the planned projects are localised in the route of existing infrastructure outside urban agglomerations, the reduction of emission and noise pollution is not to be presumed.	0	55, 56, 57	
	Total	+1		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as less significant. In the concerned section, there is a possible negative impact on the national nature reserve (NPR) Šúr through the construction of a collector, which will require an interference with alluvial forests in its vicinity (in the originally reserved protection zone). The affected area is protected also as a Ramsar site Šúr. The area is vulnerable to interference that could affect the water regime.	-1	55	Not to affect the water regime
2	Impacts to the Natura 2000 sites are considered as less significant. Following Natura 2000 sites, which are likely to be affected, have been identified within a corridor of 1 000 meters: - SKCHVÚ023 Úľanská mokraď wetland - direct contact - SKUEV089 Martinský les  Detailed assessment of impacts on subjects of protection is presented in the Annex 4.	-1	55, 57	In terms of interference with Natura 2000 sites, assessment of the impact on the territory was performed by course of the paragraph 28 of the Act No. 543/2002 Coll. Significant impact on the subject of protection, for which the relevant sites have been declared, was not identified. It is necessary to consistently implement all measures arising from the assessment conclusions
3	Motorway crosses the supraregional bio-corridor (NRBk) Šúrský kanál canal as well as	-1	55, 56, 57	Ensure consistent implementation of measures to improve the

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	several regional bio-corridors (RBk) like Čierna voda, brooks Stoličný potok, Gidra, Ronava, Parná and Trnávka, Čertov kopec - Trnianska dolina - Dolné Čady, supraregional bio-corridors affected by the route include also Strmina – Šúr – Malý Dunaj. Bio-centres in the vicinity - supraregional bio-centre (NRBc) Šúr, regional bio-centre (RBc) Martinský les, Šenkviceký háj - Vršky, RBc Voderady and RBc Trnavské Rybníky.			passability of the area and to eliminate the barrier effect
4	There are best quality soils of quality class 1 to 4 in the territorial sector, mainly in the section Senec - Blatné, minimum impact on commercial forests.	-1	54, 55, 56, 57	Minimise the land take
5	In the section from the Senec interchange, the motorway runs through a cutting with a layer of highly plastic clays and a remediation of a landslide and an extension could disturb these layers.	-1	56, 57	Within the preparation and implementation perform measures to protect the waters
6	The Blatné interchange crosses the II. degree protection zone of water supply sources Senec - Boldog.	-1	56	Within the preparation and implementation perform measures to ensure the stability of the rock environment
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-6		

Motorway D1		Territorial sector No.2: MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, ZA-MT	+2	1, 2, 3		
2	BA-ZA-KE, maximum value west - east	+2	1, 2, 3		
	Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+2			
3	X	0			
4	4 lanes 2020	+2	1, 2, 3		
	Total	+8			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There are 10 black spots, 1 recurring black spot and high density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a significant improvement of situation is expected.	+2	1, 2, 3		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	1, 2, 3	In case of the proximity of human settlements to the planned infrastructure in the territorial sector No.2 it will be necessary to implement noise reducing measures.	
	Total	+3			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, within the corridor of 1 000 meters there is the protected landscape area (CHKO) Strážovské vrchy, nature monument (PP) Turská skala, national nature reserve (NPR) Slnčné skaly and Národný park Malá Fatra national park (NP). A slight temporary indirect impact during the construction is expected.	0	1, 2, 3,	Observe general measures for minimisation of impacts determined in the EIA	
2	Presumably affected Natura 2000 sites:  • SKCHVU013 Malá Fatra - direct contact (tunnel), impact only at tunnel openings and at the outlet of ventilation shaft • SKUEV0667 Slnčné skaly (SAC) - within the 1 000 m corridor The feeder is planned in a close vicinity of SKUEV0667 Slnčné skaly, direct interference with Natura 2000 sites is only in the Višňové tunnel, where the route is running under the SPA Malá Fatra almost in the entire section. Natura 2000 sites within the 1 000 m corridor include SKUEV0252 Malá Fatra. Impacts to the Natura 2000 sites are considered as less	-1	1, 2	Observe general measures for minimisation of impacts determined in the EIA	

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	significant. Detailed assessment of impacts on subjects of protection is presented in the Annex 4.			
3	<p>Impacts to the landscape and the Territorial System of Ecological Stability (TSES) are assessed as less significant. Following elements of TSES are located in the broader territory:</p> <ul style="list-style-type: none"> <li>NRBk Váh, biospheric bio-centre (BBC) Krivánska Fatra</li> <li>NRBk Prepojenie Krivánskej a Lúčanskej Fatry (Connection between Krivánska and Lúčanská Fatra)</li> <li>RBc Slnčné skaly</li> <li>RBk 18 – water course Rajčanka and its flood-plain. Wetland areas along the flow of Rajčanka and between the current route of the road I/64 and the railway, they are important in terms of the hatching of amphibians.</li> <li>RBk Kozol – Cibulník – Súľovské skaly</li> <li>RBk ecotone of Lúčanská Fatra</li> </ul> <p>The tunnel section has a positive impact on the trafficability of the territory, it reduces traffic volume on the road I/18 in the Strečnianska úžina pass.</p>	-1	1, 2, 3	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, minor interference with forests with protective and special function in each project.	-1	1, 2, 3	Minimise the land take
5	There are sections with extensive slope deformations on the route.	-1	1, 3	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The construction of Tunnel Višňové will have a significant impact on the groundwater hydrology with potential significant impact on water supply sources.	-2	3	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-6		



Motorway D1		Territorial sector No.3: MI D1 and R3 Martin – MI D1 and R3 Hubová		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, ZA/MT - RK/DK/LM	+1	4		
2	BA-ZA-KE, maximum value west - east	+2	4		
3	X	0			
4	4 lanes 2020	+2	4		
	Total	+5			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Four black spots have been identified on the roads substituting the function of planned structures in the sector, due to the shift of a greater part of traffic on the planned infrastructure, a significant improvement of situation is expected.	+1	4		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	4		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. Following protected areas were identified in a broader territory (corridor of approx. 1 000 m): <ul style="list-style-type: none"><li>Národný park Malá Fatra national park</li><li>NP Malá Fatra and its protection zone</li><li>NP Veľká Fatra and its protection zone</li><li>Nature reserve (PR) Rojkovské rašelinisko peat bog</li><li>PP Šútovská epigenéza</li></ul>	-1	4	Observe general measures for minimisation of impacts determined in the EIA	

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	<ul style="list-style-type: none"> <li>PP Kraľoviansky meander</li> <li>Protected site (CHA) Rieka Orava (Orava river)</li> <li>PP Rojkovská travertínová kopa</li> </ul> <p>There is a direct interference with NP Malá Fatra national park, protection zone of NP Veľká Fatra national park, the construction and operation of the motorway could negatively affect other protected areas.</p>			
2	<p>Impact on Natura 2000 sites have been assessed as significant. The route will presumably significantly affect following areas:</p> <ul style="list-style-type: none"> <li>SKUEV0238 Veľká Fatra</li> <li>SKUEV0252 Malá Fatra</li> <li>SKUEV0253 Váh</li> <li>SKUEV0663 Šíp</li> <li>SKCHVU013 Malá Fatra</li> </ul> <p>Additional Natura 2000 sites are located in a corridor distant app. 1000 m, influence to which is less probable:</p> <ul style="list-style-type: none"> <li>SKUEV0254 Močiar</li> <li>SKUEV0243 Orava</li> </ul> <p>Detailed assessment of impacts on subjects of protection is presented in the Annex 4</p>	-2+	4	<p>An expert assessment of impacts of D1 motorway on the Natura 2000 subjects of protection pursuant to the Article 3 of Directive 92/43/EEC was performed in the section. This assessment was conducted by Dr. Petr Roth in July 2012. Concerning three subject of protection - European habitat type 3220 - Alpine rivers and the herbaceous vegetation along their banks, brown bear (<i>Ursus arctos</i>) and Eurasian lynx (<i>Lynx lynx</i>) - it was stated that the plan in its actual form has a significant impact on these subjects. NDS subsequently elaborated a document - Technical measures to mitigate the impact of D1 in section Turany Hubová on Natura 2000 sites - and requested a subsequent additional assessment for objects that had been identified in previous assessment as significantly affected. In the conclusion of the expert assessment of proposed technical measures, it was stated that the construction of D1 will not adversely affect the integrity of the Natura 2000 areas concerned.</p>
3	<p>Impacts on the landscape and TSES are assessed as significant. Following elements of TSES are located in the broader territory:</p> <ul style="list-style-type: none"> <li>BBc Malá Fatra</li> <li>NRBc Kopa - Korbeľka</li> <li>NRBk Váh</li> <li>NRBk Veľká Fatra – Chočské vrchy - terrestrial</li> <li>NRBk Vodný tok Orava river</li> <li>RBc Pod Sokolom</li> </ul> <p>The route interferes with supraregional bio-corridors and significantly impacts the passability of the area. Suggested measures include ecoducts, adjustments and extensions of bridges so that they would correspond with the needs of migrating animals.</p>	-2	4	<p>All technical measures (ecoducts, bridges) should be designed with respect to provision of safe migration to concerned protected and endangered species.</p>
4	There are soils of lesser quality in the territorial sector, minor interference with forests with protective function.	-1	4	Minimise the land take
5	There are sections with extensive slope deformations on the route.	-2	4	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The section passes through the II. degree protection zone of water supply sources and protected water management area Veľká Fatra	-1	4	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-8		

Motorway D1		Territorial sector No.4: MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, RK/DK/LM	+1	5		
2	BA-ZA-KE, maximum value west - east	+2	5		
	Trstená-DK-RK-BB-ZV-Šahy, minimum value north - south	0			
3	X	0			
4	4 lanes 2020	+2	5		
	Total	+5			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Five black spots have been identified on the roads substituting the function of planned structures in the sector, due to the shift of a greater part of traffic on the planned infrastructure, a significant improvement of situation is expected.	+1	5		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	5		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. Following protected areas were identified in a corridor of 1 000 m): <ul style="list-style-type: none"><li>NP Nízke Tatry national park and its protection zone – roads I/18 and I/59 form the borderline</li><li>NP Veľká Fatra national park and its protection zone – interference with its protection zone between Hubová and Hrboltová, approx. 2 200 m</li><li>NPR Choč – motorway distance approx. 1 000 m</li><li>PR Ivachnovský luh alluvial plane– motorway distance approx. 200 m</li><li>National Nature Monument (NPP) Liskovská jaskyňa cave - motorway distance approx. 100 m from its protection zone</li></ul>	-1	5	Observe general measures for minimisation of impacts determined in the EIA	

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	<ul style="list-style-type: none"> <li>PR Mohylky - motorway distance approx. 180 – 200 m</li> <li>PP Skalná päť – motorway distance approx. 500 m</li> </ul>			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. The route will have slightly negative impact on the integrity of SKUEV0253 Váh river, into which it will directly interfere twice, resulting in its permanent fragmentation. Integrity of the Natura 2000 sites will be slightly negatively affected. In addition to the directly impacted site SKUEV0253 Váh river, following sites are located in a vicinity:</p> <ul style="list-style-type: none"> <li>SKUEV0305 Choč</li> <li>SKUEV0238 Veľká Fatra</li> <li>SKCHVU050 Chočské vrchy</li> <li>SKCHVU033 Veľká Fatra</li> </ul> <p>Coherence of Natura 2000, represented by individual populations of species and habitats communicating between Natura 2000 sites will be slightly disturbed. The motorway in section Hubová - Ivachnová will particularly limit the migration of animals. Slightly negative impacts of the barrier effect will be strengthened by a fence and partially mitigated by bridges passable for animals.</p> <p>Detailed assessment of impacts on Natura 2000 sites is presented in the Annex 4</p>	-1	5	<p>In April 2013, an Appropriate assessment of impacts of the construction of the D1 motorway section Hubová - Ivachnová on Natura 2000 sites pursuant to the Article 6.3 of Directive 92/43/EEC on habitats, conducted by experts from Štátna ochrana prírody Slovenskej republiky (State Nature Conservancy of the Slovak Republic). No significantly negative impacts on protected species and habitats have been identified.</p>
3	<p>Impacts on the landscape and TSES are assessed as less significant. Following elements of TSES are located in the broader territory:</p> <ul style="list-style-type: none"> <li>NRBc Choč</li> <li>NRBc Kopa – Korbefka</li> <li>RBc Ivachnovský háj</li> <li>NRBk Váh</li> <li>NRBk complex Veľká Fatra – Chočské vrchy</li> <li>RBk Revúca river</li> </ul> <p>The motorway in section Hubová - Ivachnová will particularly limit the migration of animals. Slightly negative impacts of the barrier effect will be strengthened by a fence and partially mitigated by bridges passable for animals. Collisions of the animals with vehicles during D1 operation will be minimised by installation of fences and appropriate barriers for birds and bats on the bridges.</p>	-1	5	<p>Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect</p>
4	There are soils of lesser quality in the territorial sector, minor interference with forests with special function.	-1	5	Minimise the land take
5	There are sections with extensive slope deformations on the route.	-1	5	Within the preparation and construction perform measures to ensure the stability of the rock environment
6	The section passes through the II. degree protection zone of water supply sources and protected water management area Veľká Fatra	-1	5	Within the preparation and construction perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-6		

Motorway D1	Territorial sector No.5: MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Part of the major transport and development axis of SR, PP/SNV-KE/PO	+1	25, 58, 59	
2	BA-ZA-KE, maximum value west - east	+2	25, 58, 59	
3	X	0		
4	4 lanes 2020	+2	25, 58, 59	
	Total	+5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There are 8 black spots, 1 recurring black spot and high density of traffic accidents on roads substituting the function of planned structure in the sector. In the meantime, the situation has improved through the operation of the motorway. Due to the shift of a greater part of traffic on the planned infrastructure and through the extension to a 4-lane layout, a continuous improvement of situation is expected.	+2	25, 58, 59	
2	New projects of motorway construction are aimed at the extension of width layout and adjustment of an existing interchange, their effect on the shift of transport from built-up area is minimal.	0	25, 58, 59	
	Total	+2		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, in a 1 000 m corridor, there is the NPR Rajtopíky, interference during the tunnel construction is not expected, possible slight indirect impact during the construction.	0	59	Observe general measures for minimisation of impacts determined in the EIA
2	No Natura 2000 sites will be directly affected in the sector. Within a 1 000 m corridor, there is the SKUEV0109 Rajtopíky, slight indirect impacts on subjects of protection can be expected during the construction.	0	59	Observe general measures for minimisation of impacts determined in the EIA

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3	The Branisko massif is a supraregional bio-centre, with 4 linked terrestrial supraregional bio-corridors and 1 regional stream bio-corridor. Bio-centres in the territory include NRBc Sľubica with the core NPR Rajtopíky and NRBk Sľubica - Dreveník - terrestrial bio-corridor, meadows and pastures with scattered vegetation, construction of the second tunnel tube will not worsen the migration passability of the area, impact on environmental stability is not expected.	0	59	Observe general measures for minimisation of impacts determined in the EIA
4	There are soils of lesser quality in the territorial sector, minor interference with forests with commercial function  Minor interference with forests with protective function	-1	25  59	Minimise the land take
5	There are sections with slope deformations on the route.	-1	25, 58, 59	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	Within selected sections of concerned territorial sector, the route passes outside SPA as well as outside the protection zone of water supply sources.	0		
7	The motorway interferes with the III. degree protection zone of natural mineral water source Baldovce	-1	58, 59	Within the preparation and implementation perform measures to protect these waters
	Total	-3		



Motorway D1		Territorial sector No.6: MI D1 and R4 Prešov západ – MI D1 and R2 Košické Oľšany - Bidovce		TEN-T: section of the original network as well as of the new planned core network	
Objective:→		Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, PO-KE	+2	6, 7		
2	BA-ZA-KE, maximum value west - east Svidník-PO-KE-Milhost', medium value north - south	+2 +1	6, 7		
3	X	0			
4	4 lanes 2020	+2	6, 7		
	Total	+7			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There was 1 black spot and high density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, an improvement of the situation is expected.	+2	6, 7		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	6, 7		
	Total	+3			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. The motorway route is located in area with the I. degree of protection pursuant to the Act No. 543/2002 Coll. on Nature and Landscape Protection, as amended, impacts on protected areas are not expected.	0			
2	Impacts on the Natura 2000 sites are assessed as less significant. The following sites are located in a close vicinity of the route (in a corridor of 1 000 m): <ul style="list-style-type: none"><li>SKCHVU009 Košická kotlina, route reaches approx. 80 m distance from the SPA</li></ul>	-1	7	In June 2011, a report has been elaborated, called "Assessment of the impact of the construction on special protection areas Košická kotlina and Slanské vrchy"(Dr. Marcel Uhrin), which stated that it is not expected that the planned construction of	

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	border. <ul style="list-style-type: none"> <li>SKCHVU025 Slanské vrchy, the motorway ends approx. 200 m before its border.</li> </ul> Detailed assessment of impacts on subjects of protection is presented in the Annex 4.			the D1 motorway in section Budimír - Bidovce would have a significant direct negative impact on the favourable state of species of adjacent SPAs Slanské vrchy and .Košícká kotlina. However, it also stated that by the reduction of the area of hunting habitats and by the increased potential of collisions with motor vehicles during the construction and operation of the motorway, certain indirect negative impact on bird populations of mentioned SPAs can be expected.
3	Impacts on the landscape and TSES are assessed as less significant. The broader territory includes several regional as well as supraregional TSES elements, the barrier effect can be mitigated through technical measures: <ul style="list-style-type: none"> <li>NRBk Torysa - the route crosses the NRBk via bridges,</li> <li>NRBc Mošník,</li> <li>NRBk Šimonka – Krčmárka – Veľký Milič – stream - terrestrial,</li> <li>regional bio-centres and regional 'bio-corridors.</li> </ul>	-1	6, 7	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, minor interference with forests with special function.	-1	6	Minimise the land take
5	There are sections with slope deformations on the route.	-1	6	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	Routing of the motorway through a deep cutting will have a significant impact on the groundwater hydrology with potential significant impact on water supply sources	-1	7	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-5		

Motorway D1		Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, KE/PO - MI/VT/HE	+1	22, 23, 25, 60		
2	X	0			
3	KE/PO - Uzhgorod	+1	22, 23, 25, 60		
4	4 lanes 2040	0	22, 23, 25, 60		
	Total	+2			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 3 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector.	0	22, 23, 25, 60		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	22, 23, 25, 60		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. No protected areas were identified in the route of the motorway or in a broader corridor of 1 000 meters.	0			
2	Impacts on the Natura 2000 sites are assessed as less significant. The motorway passes through areas with Natura 2000 sites. A part of the route runs through a tunnel, nevertheless, the impact on these sites is inevitable because of their large area. Concerned sites: <ul style="list-style-type: none"><li>SKCHVU025 Slanské vrchy,</li><li>SKCHVU037 Ondavská rovina.</li></ul>	-1?	22, 23	Within the assessment of the impacts of activities on the environment, it is necessary to perform appropriate assessment of impacts on Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of Directive on habitats. (Natura assessment). Environmental impact statement from 1998 was issued before the Natura 2000 implementation.	

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	The motorway in the section Bidovce - Dargov passes through the SPA Slanské vrchy via a tunnel, in the section Dargov - Pozdišovce it interferes with SPA Ondavská rovina. Detailed assessment of impacts is presented in the Annex 4.			
3	The route passes through regional and supraregional bio-corridors, the impact can be minimised through technical measures ensuring the passability of the area.	-1	22, 23, 24	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, local occurrence of quality class 4 soils, impact on forests with commercial function.	-1	22, 23, 24	Minimise the land take
5	There are sections with slope deformations and potential landslides on the route. Eastern part of the territorial sector is located in relatively stable environment.	-1	22, 23	Within the preparation and construction perform measures to ensure the stability of the rock environment
6	The territorial sector is not interfering with any SPA, interference with the II. degree protection zone of water supply sources in selected sections.	-1	22	Within the preparation and construction perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-5		

Motorway D3		Territorial sector No.8: MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec		TEN-T: section of the original network as well as of the new planned core network	
Objective:→		Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR, ZA/MT-	+1	8, 9, 10, 11		
2	Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+2	8, 9, 10, 11		
3	ZA/MT-Katowice, Ostrava	+2	8, 9, 10, 11		
4	4 lanes 2020	+2	8, 9, 10, 11		
	Total	+7			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Worst situation concerning the accident rate among all considered sections. There were 18 black spots, 1 recurring black spot and the highest density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a significant improvement of situation is expected.	+2	8, 9, 10, 11	The improvement of transport safety situation will be based on the segregation of the motorway body in the built-up area of cities and villages.	
2	The planned motorway D3 is designed mostly in the route of existing road I/11 and in the route of the motorway section constructed in a half-profile layout. The shift of traffic volume outside the built-up area will be minimal.	0	8, 9, 10, 11	The reduction of noise pollution will be achieved by means of noise barriers in built-up areas of cities and villages.	
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. The motorway route is located in area with the I. degree of protection pursuant to the Act No. 543/2002 Coll. on Nature and Landscape Protection, as amended.  The following protected areas were identified in the broader territory (in a corridor of up to 1 000 m): <ul style="list-style-type: none"><li>• CHKO Kysuce - the route passes through the edge in a short section</li><li>• PR Brodnianka</li><li>• PR Rochovica</li></ul>	0	9, 10	Observe conditions and measures to minimise impacts on protected areas determined in the EIA process	

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	<ul style="list-style-type: none"> <li>PP Kysucká brána</li> </ul> <p>Construction of the motorway will also require adjustment of river Kysuca in close vicinity of protected area. If the measures will be observed, particularly during the construction, impacts on the subjects of protection in mentioned protected areas are not expected</p>			
2	Impacts on the Natura 2000 sites are assessed as non-significant. The planned route is not interfering with any Natura 2000 site, no Natura 2000 sites are located in the broader motorway corridor.	0		
3	<p>The route is directly crossing the NRBc 3 Ľadonhora – Brodnianka.</p> <p>The route is running through the valley of the Kysuca river, which is a supraregional bio-corridor, there are several interferences. In addition, there is an interference with several supraregional and regional bio-corridors:</p> <ul style="list-style-type: none"> <li>NRBk 3c Škorča – Tábor – Skačková hora – Obelec,</li> <li>NRBk Vodný tok Kysuca a Čierňanka – stream - terrestrial,</li> <li>RBk Vodný tok Bystrica – stream - terrestrial,</li> <li>RBk Vysoká nad Kysucou – Oščadnica – terrestrial,</li> <li>RBk Klubina – Chotárny kopec.</li> </ul>	-1	9, 10	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, minor interference with forests with special function in the southern part.	-1	8, 9	Minimise the land take
5	There are sections with extensive slope deformations on the route.	-1	8, 9, 10, 11, 26	Within the preparation and construction perform measures to ensure the stability of the rock environment
6	The bulk of the area interferes with the protected water management area Beskydy - Javorníky, interference with the II. degree protection zone of several water supply sources in selected sections.	-1	9, 10, 26	Within the preparation and construction perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-4		



Motorway D3		Territorial sector No.9: MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the transport axis, outside major development axis of SR, no centres	0	12		
2	Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+2	12		
3	ZA/MT-Katowice	+2	12		
4	2 lanes 2040	-2			
	Total	+2			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were no black spots or recurring black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector.	0	12		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	12		
	Total	+1			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. The route will not affect any protected areas, there are no protected areas in the sector within a 1 000 m corridor.	0			
2	The route does not interfere with any protected areas of the European Natura 2000 system, impacts are therefore assessed as non-significant. Natura 2000 sites are not located even in a broader motorway corridor.	0			
3	Concerning the morphology of the landscape, the route will impact its landscape scenery and its environmental stability and migration passability. If the measures for the improvement of the connectivity of habitats will be observed, the impact can be assessed	-1	12	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect	

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	as slight. Following TSES elements have been identified within the sector: <ul style="list-style-type: none"> <li>• RBc Skalité – Rieka</li> <li>• NRBk connecting Veľký Javorník-Malý Polom-Veľká Rača-Vychylovka–Harvelka–Riečnica</li> <li>• NRBk Čierňanka - stream bio-corridor, direct continuation of NRBk Kysuca river.</li> <li>• RBk Šlahorov potok - stream bio-corridor.</li> </ul>			
4	There are soils of lesser quality in the territorial sector, interference with forests with commercial function.	-1	12	Minimise the land take
5	There are sections with extensive slope deformations on the route.	-2	12	Within the preparation and construction perform measures to ensure the stability of the rock environment
6	The territorial sector is a part of the protected water management area Beskydy - Javorníky, interference with the II. degree protection zone of water supply sources, impact on or liquidation of individual and group water sources in selected sections.	-1	12	Within the preparation and construction perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-5		

Motorway D4	Territorial sector No.10: MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria	TEN-T: section of the new planned comprehensive network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Outside the major transport and development axis of SR, BA	+1	18, 61, 62	
2	X	0		
3	BA - Wien	+1.5	18, 61, 62	
4	X	0		
	Total	+2.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were no black spots or recurring black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector.	0	18, 61, 62	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	18, 61, 62	
	Total	+1		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as significant. Almost all of the natural fragments of the surrounding landscape in the territorial sector of the D4 motorway are protected or suggested for the protection. We indicate all protected areas in the corridor of 1 000 - 2 000 meters, even though the route variants are not expected to interfere with them all. <ul style="list-style-type: none"><li>CHKO Záhorie</li><li>CHKO Malé Karpaty</li></ul>	-2	18, 61	Minimise direct impact on the protected area, consistently implement measures suggested in the EIA process for the elimination of the noise, headlight dazzling, mitigate migration barriers by means of technical measures, implement rescue transfers, implement monitoring

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	<ul style="list-style-type: none"> <li>• CHKO Dunajské luhy (<i>protected also as the Ramsar site Dunajské luhy</i>)</li> <li>• CHA Devínske alúvium Moravy - river Morava alluvium (<i>protected also as the Ramsar site Niva Moravy</i>)</li> <li>• NPR Šúr (<i>protected also as the Ramsar site Šúr</i>)</li> <li>• PR Jurské jazero</li> <li>• PR Pod Pajštúnom</li> <li>• PR Strmina</li> <li>• PR Zlatá studnička</li> <li>• CHA Svätojurské hradisko</li> <li>• PP Limbašská vyvieračka</li> <li>• PR Dunajské ostrovy</li> <li>• PR Gajc</li> <li>• PR Kopáčsky ostrov</li> <li>• PR Topoľové hony</li> </ul> <p>All assessed variants will to a different degree interfere with CHKO Malé Karpaty, CHKO Dunajské luhy, a peripheral interference with the NPR Šúr, or its protection zone is expected. PR Gajc and CHA Devínske alúvium Moravy will be affected directly.</p> <p>In terms of the effects of the planned motorway on protected areas, it is possible to expect direct take of protected area parts, impact on migration, stress factors (noise and dazzling by headlights) presenting burdens to the concerned parts of protected areas, pollution of air in the protected areas</p>			
2	<p>The route of D4 motorway runs through an area with cumulation of valuable natural sites, which have been included into the Natura 2000 system. Following areas will be directly or indirectly affected by the construction:</p> <ul style="list-style-type: none"> <li>• SKUEV0104 Homoľské Karpaty</li> <li>• SKUEV0279 Šúr</li> <li>• SKUEV0388 Vydrica</li> <li>• SKUEV0089 Martinský les</li> <li>• SKUEV0295 Biskupické luhy</li> <li>• SKUEV0269 Ostrovné lúčky</li> <li>• SKUEV0312 Devínske alúvium Moravy</li> <li>• SKUEV0314 Morava</li> <li>• SKCHVU014 Malé Karpaty</li> <li>• SKCHVU029 Sysľovské polia</li> <li>• SKCHVU007 Dunajské luhy</li> <li>• SKCHVU016 Záhorské Pomoravie</li> </ul> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-2?	18, 61	<p>In December 2010, a report has been elaborated, called "Motorway D4, Ivanka sever - Záhorská Bystrica - Assessment of the project impact on Special Areas of Conservation and Special Protected Areas", conducted by HBH projekt, Brno, Czech Republic. The report has identified no actual significant negative impact of the assessed project on the integrity and subjects of protection of any Special Area of Conservation or Special Protected Areas.</p> <p>However, the precondition for decisive and unambiguous exclusion of a significant negative impact, is the implementation of a comprehensive monitoring.</p>
3	In urbanised and densely populated country, it is important to maintain	-1	18, 61	Ensure consistent implementation of measures to improve the passability of the

	<p>refugia for animals and migration corridors in order to ensure the passability of the area and its ecological stability</p> <p>Following elements of TSES, providing this function, are located in the territory:</p> <ul style="list-style-type: none"> <li>• NRBc Supraregional bio-centre Dolnomoravská niva</li> <li>• NRBc Devínska Kobyla</li> <li>• NRBc Šúr (including NPR Šúr)</li> <li>• NRBc Martinský les</li> <li>• NRBc Bratislavské luhy</li> <li>• Regional bio-centres</li> <li>• PRBk Dunaj</li> <li>• NRBk Alúvium Moravy</li> <li>• NRBk terrestrial along the ridge of Malé Karpaty mountains</li> <li>• NRBk running parallel with water courses Malý Dunaj and Šúrsky kanál</li> <li>• NRBk Malý Dunaj</li> <li>• Regional bio-corridors</li> </ul>			<p>area and to eliminate the barrier effect. The barrier effect of the motorway on migration and exchange of genetic information of living organisms and their communities through bio-corridors can be mitigated by grade separated crossing, by technical measures for the improvement of the connectivity of habitats (underpasses) and by measures preventing increased mortality on roads (fences, guidance barriers, measures for protection of birds and bats). It is also necessary to implement the greening of motorways in order not to create suitable hiding residential and foraging opportunities in a dangerous proximity. Create replacement habitats in a greater distance.</p>
4	There are best quality soils in the territorial sector, impact on commercial forests and partly on forests with special function.	-1	18, 61	4
5	In mountainous parts of the territorial sector, there are sections with slope deformations	-1	61	5
6	<p>The southern part of the territorial sector is a part of the protected water management area Žitný ostrov, disturbance of groundwater regime in cuttings, or excavated tunnels, interference with the II. degree protection zone of water supply sources</p> <p>The construction of the Karpaty tunnel will have a significant impact on the groundwater hydrology.</p>	<p>-1</p> <p>-1</p>	<p>18</p> <p>61</p>	6
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		7
	Total	-9		

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Expressway R1		Territorial sector No.11: MI D4 and R1 Most pri Bratislave – EI R1 Sered'		TEN-T: section not included
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Part of the major transport and development axis of SR, BA/TT	+2	63	
2	BA-ZA-KE, maximum value west - east	+2	63	
3	X	0		
4	X	0		
	Total	+4		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 2 black spots on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	63	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	63	
	Total	+2		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	The interconnection of planned motorway D4 and operated section of expressway R1 is running mostly through a flat area, three variants are being considered. There is no direct contact with a protected area in the sector, in the area between variants, there is CHA Vlčkovský Háj, impact is not expected.	0		
2	Impacts on Natura 2000 sites are assessed as significantly	-2	63	In 2013, an Appropriate assessment of impacts on Natura 2000 sites has been



	<p>negative.</p> <ul style="list-style-type: none"> <li>All variants pass through the SKCHVU023 Úľanská mokrad'</li> </ul> <p>Detailed characteristics and assessment of impacts is presented in the Annex 4.</p>			<p>elaborated for the R1 expressway section Most pri Bratislave - Vlčkovce. The conclusion of assessment states significant negative impact (-2) on subjects of protection and integrity of the SPA for all considered variants.</p> <p>In the context of this assessment, it is not possible to eliminate the significant negative impact (-2) as such in compliance with the methodology by any suggested mitigation measures. A possible and viable solution of this situation is to adjust the technical design of expressway R1 (e.g. by the extension of noise barriers within the update of the Technical study that will be a basis for the Environmental Report) for the next assessment level - EIA Report. If the noise barriers will represent an integral part of the expressway already in the basis for the EIA Report, it is possible to perform new assessment of impacts on Natura 2000 sites within the EIA Report, which could result in the slightly negative impact (-1).</p>
3	<ul style="list-style-type: none"> <li>NRBk Malý Dunaj - Stream supraregional bio-corridor is running along the whole route of the natural water course of Malý Dunaj and its surrounding riparian vegetation and oxbows.</li> <li>NRBk stream supraregional bio-corridor running parallel to water courses Čierna voda and Stoličný potok</li> <li>NRBc Úľanská mokrad' - terrestrial supraregional bio-centre</li> <li>Elements of regional as well as local TSES</li> </ul> <p>All considered variants are crossing bio-corridors, the barrier effect should be mitigated by technical measures for the improvement of passability of the area and for the preservation of functions of the bio-corridors.</p>	-1	63	<p>Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect</p>
4	<p>There are best quality soils of quality class 1 to 4 in the territorial sector, impact on commercial forests.</p>	-1	63	<p>Minimise the land take</p>
5	<p>The territorial sector is located in a flat area and relatively stable rock environment.</p>	0		
6	<p>The entire territorial sector is a part of the protected water management area Žitný ostrov, disturbance of groundwater regime in cuttings, interference with the II. degree protection zone of water supply sources</p>	-1	63	<p>Within the preparation and implementation perform measures to protect the waters</p>
7	<p>Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.</p>	0		
	<p>Total</p>	-5		

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Expressway R1		Territorial sector No.12: EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka		TEN-T: section of the new planned comprehensive network
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Outside the major transport and development axis of SR, BB/ZV-RK/DK/LM	0	64, 65, 66	
2	Trstená-DK-RK-BB-ZV-Šahy, minimum value north - south	0	64, 65, 66	
3	X	0		
4	2 lanes 2040, (Banská Bystrica - Donovaly 4 lanes 2040)	-2	64, 65, 66	
	Total	-2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 4 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector.	0	64, 65, 66	
2	Planned expressway R1 is predominantly designed in a narrow valley of Belianska dolina, practically in the corridor of existing road I/59. There will be a minimum shift of transport outside the built-up area, the transport from section Banská Bystrica – Donovaly will be transferred to a settled section Banská Bystrica – Slovenská Ľupča.	0	64, 65, 66	
	Total	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	The route is designed in complicated geomorphologic conditions and in the area with extraordinary concentration of natural values, which are reflected in declared protected areas. <ul style="list-style-type: none"><li>NP Nízke Tatry</li><li>NP Veľká Fatra</li><li>NPR Príboj</li><li>PR Kozí chrbát</li><li>CHA Revúca</li><li>PP Bukovinka</li></ul>	-2	64, 65, 66	

	<ul style="list-style-type: none"> <li>• PP Jazierske travertíny</li> <li>• PP Dogerské skaly</li> <li>• National Nature Monument (NPP) Liskovská jaskyňa</li> <li>• PP Skalná päšť</li> <li>• PR Mohylky</li> </ul>			
2	<p>The route connects the region Pohronie with Považie region through the massif of Nízke Tatry, it passes through exposed territory in terms of the landscape, with several protected areas of European significance. Impact on Natura 2000 sites is assessed as significantly negative. The route interferes with following areas:</p> <ul style="list-style-type: none"> <li>• SKCHVU018 Nízke Tatry</li> <li>• SKCHVU033 Veľká Fatra</li> <li>• SKUEV0062 Príboj</li> <li>• SKUEV1303 Alúvium Hrona</li> <li>• SKUEV0302 Ďumbierske Nízke Tatry</li> <li>• SKUEV0198 Zvolen</li> <li>• SKUEV0164 Revúca</li> <li>• SKUEV0197 Salatín</li> <li>• SKUEV0253 Rieka Váh</li> </ul> <p>At the beginning of the route, from Banská Bystrica it runs in the vicinity of SKUEV0062 Príboj, SKUEV1303 Alúvium Hrona, close before Moštenica it enters the SKUEV0302 Ďumbierske Tatry, SKCHVU018 Nízke Tatry, the surface variant in Korytnická dolina valley can partially interfere with SKUEV0198 Zvolen and CHVU033 Veľká Fatra from the western part, from Liptovská Osada heading north, the route crosses the river Revúca, which in this section forms SKUEV0164 Revúca, from the eastern part of the valley, SKUEV0197 Salatín could be partially affected. Close before the connection to the D1 motorway near Ružomberok, the R1 route crosses the Váh river, which represents the SKUEV0253 Váh. The planned route of R1 will have a significant impact on the natural environment, protected species and Natura 2000 sites. Elimination of these impacts is probably not feasible by any suggested technical, revitalisation or compensation measures.</p> <p>Detailed characteristics and assessment of impacts is presented in the Annex 4.</p>	-2	64, 65, 66	<p><b>The route of the expressway will require an assessment of its impacts on good condition of Natura 2000 sites by course of the paragraph 28 of the Act No. 543/2002 Coll.</b> An appropriate assessment of the impact of activities on the favourable state of the special protection area and on Special areas of conservation is required, in order to evaluate the severity of impacts on species and habitats, for which are the areas declared. According to recommended EC methodologies, it is acknowledged that in case of proving the likelihood of significant negative impact on at least one subject of protection in concerned site, there is a significant impact on the integrity of the site. This situation may occur with high probability and in that case, the relevant project can be implemented only in case of an urgent higher interest, whereby there shall be no other variants of the projects.</p>
3	<p>Impacts on the landscape and TSES are assessed as significant. Significant elements of TSES on the route include:</p> <ul style="list-style-type: none"> <li>• NRBk Veľká Fatra – Nízke Tatry,</li> <li>• NRBk Vodný tok Váh,</li> <li>• NRBk Vodný tok Hron,</li> <li>• RBk Vodný tok Revúcej.</li> </ul> <p>Relatively untouched landscape will be visually disturbed by new significant line</p>	-1	64, 65, 66	

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	element, with a lot of technical elements (elevated motorways, cuttings and embankments).			
4	There are soils of lesser quality on the route, interference with forests with protective function.	-1		Minimise the take of forest lands.
5	There are section on the route with the potential of landslides with slab and flow form, which might be activated by the building of cuttings.	-1		Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	There are protection zones of water supply sources in the route.	-1		Within the preparation and implementation perform measures to protect the waters.
7	The route passes through the CHVO Nízke Tatry and Veľká Fatra. Possible impact on table, healing and mineral sources Korytnica (the KH-2 well).	-1		Solve possible impact on table, healing and mineral sources Korytnica within the subsequent stages of project preparation.
	Total	-9		

Expressway R2		Territorial sector No.13: MI D1 and R2 Chochoľná – EI R2 and R8 Brezolupty – Pravotice		TEN-T: section of the new planned comprehensive network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Outside the major transport and development axis of SR, TN-PD	0	28, 13		
2	X	0			
3	X	0			
4	4 lanes 2020	+2	28, 13		
	Total	+2			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 4 black spots on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	28, 13		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a minimum impact on the public health (reduction of noise and emission pollution) is expected.	0	28, 13		
	Total	+1			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. The motorway route is located in area with the I. degree of protection pursuant to the Act No. 543/2002 Coll. on Nature and Landscape Protection, as amended. Following areas were identified in the corridor of approx. 1 000 m: <ul style="list-style-type: none"><li>PP Mitická slatina</li><li>PP Svinica</li></ul>	0			
2	The route does not impact any protected areas of the European Natura 2000 system, impacts to the Natura 2000 system are therefore assessed non-significant. Natura 2000 sites are not located even in a broader motorway corridor.	0			

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3	<p>Impact on the landscape and TSES is assessed as less significant, negative impact of construction is mitigable by measures preserving the passability of bio-corridors. Following elements of TSES are located in the route of the motorway and in the broader territory:</p> <ul style="list-style-type: none"> <li>• NRBk Váh</li> <li>• The NRBc of ridges of Považský Inovec and Strážovské Vrchy connects the NRBc Tematínske vrchy - Kňazí vrch - Javorníček with other bio-centres of Považský Inovec and Strážovské Vrchy. Important terrestrial bio-corridor, complexes of the forest represent an important ecosystem with specific mosaic of habitats. The barrier effect is present, therefore it is necessary to implement a migration overhead crossing (ecoduct).</li> <li>• RBc Svinica</li> </ul>	-1	28, 13	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of medium quality in the territorial sector, local soils of quality class 3 and 4, impact on forests with commercial function, slight impact on forests with special function.	-1	13, 28	Minimise the land take
5	Slope deformities in the assessed route are developed on the slopes with higher sediment accumulation that are prone to sliding of the Quaternary sediments.	-1	13, 28	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The expressway route does not impact any protected water-management area. The expressway route interferes with the II. degree protection zone of water supply source.	-1	13, 28	Within the preparation and implementation perform measures to protect the waters
7	Expressway impacts also the II. degree protection zone of natural sources of mineral waters in Mníchova Lehota, as well as the II. degree protection zone of natural sources of mineral table waters in Trenčianske Mitice.	-1	13	Within the preparation and implementation perform measures to protect these waters
	Total	-5		



Expressway R2		Territorial sector No.14: Pravotice – EI R2 and R1 Žiar nad Hronom juh		TEN-T: section of the new planned comprehensive network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Outside the major transport and development axis of SR, PD -	0	29, 30 ,31		
2	X	0			
3	X	0			
4	4 lanes 2040, (Pravotice - Handlová 4 lanes 2020)	0	29, 30, 31		
	Total	0			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 5 black spots on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	29, 30, 31		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	29, 30, 31		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, in a 1 000 m corridor, there is PP Nitrica, impact is not expected.	0			
2	Impacts on the Natura 2000 sites are assessed as less significant. In a short section, the route is getting close to the southernmost spur, or crosses the SKUEV0128 Rokoš.  Detailed assessment of impacts is presented in the Annex 4.	-1	29	It will be necessary to assess impacts of the expressway on objects of the protection in concerned territory in accordance with the paragraph 28 of the Act No.543/2002 Coll.	

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3	<p>The route is crossing or affecting the ecological function of TSES elements present in the section.</p> <ul style="list-style-type: none"> <li>• NRBk terrestrial Rokoš-Drieňov,</li> <li>• NRBk Vtáčnik-Flochová,</li> <li>• NRBk Nitra</li> <li>• NRBc Drieňov,</li> <li>• NRBc Košovské mokrade.</li> </ul> <p>Conflicts are solvable by technical measures.</p>	-1	29, 30, 31	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of quality class 2 to 4 in the territorial sector, minor interference with forests with protective function.	-1		Minimise the take of agricultural soil and forest lands.
5	There are sections with potential landslide areas on the route.	-1		Within the preparation and implementation perform measures to ensure the stability of the rock environment.
6	There are protection zones of water supply sources in the route.	-1		Within the preparation and implementation perform measures to protect the waters.
7	There are protection zones of mineral and thermal waters.	-1		Within the preparation and implementation perform measures to protect the waters.
	Total	-6		

Expressway R2		Territorial sector No.15: EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany		TEN-T: section of the new planned comprehensive network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR as well as of the transport region, BB/ZV-LC/RS	+1	32, 33, 34		
2	BA-ZV-LC-KE, medium value west - east	+1	32, 33, 34		
	BA-DS-NZ-LC-KE, minimum value west - east	0			
3	X	0			
4	4 lanes 2040	0	33, 34		
	Total	+2			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 7 black spots on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	32, 33, 34		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	32, 33, 34		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. There is no direct contact with a protected area in the sector, in a 1 000 m corridor, there are <ul style="list-style-type: none"><li>PP Krivánsky potok</li><li>CHA Arborétum Borová Hora</li><li>CHA Hrončička</li><li>PR Rohv</li></ul>	-1	32,33,34	Consistently implement all measures to mitigate the impacts of construction specified in the EIA process	

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	<ul style="list-style-type: none"> <li>PR Pstruša</li> <li>PR Ružínske jelšiny</li> </ul> <p>The variant interferes with the peripheral part of the protected site Arborétum Borová hora (planned construction of the tunnel mouth). The most significant negative impacts will become evident in the stage of construction.</p>			
2	Impacts on the Natura 2000 sites are assessed as non-significant. There is no direct contact with NATURA 2000 sites, within a 1 000 m corridor there are SKUEV0247 Rohy and SKCHVU022 Poľana, eventual impact is not expected.	0	32	
3	<p>The route is crossing or affecting the ecological function of TSES elements present in the section. Conflicts are solvable by technical measures</p> <ul style="list-style-type: none"> <li>NRBc Rohy</li> <li>NRBk terrestrial Poľana – Rohy – Ostrôžka – Kukučkov kopec</li> <li>NRBk terrestrial Poľana-Hriňová-Divín</li> <li>NRBk stream Ipeľ</li> <li>Regional bio-centres and bio-corridors</li> </ul>	-1	32, 33, 34	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of quality class 4, impact on forests with commercial function, impact on forests with special function.	-1	32, 34	Minimise the take of agricultural soil and forest lands.
5	There are sections with extensive slope deformations on the route.	-1	32, 34	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The construction of tunnels will represent a relatively significant regional drain for groundwater in the rock environment and it is not possible to preclude their impact on used groundwater resources in the wider area.	-1	32	Within the preparation and implementation perform measures to protect the waters
7	Possible impact on healing waters of the Sliač spa.	-1	32	Solve possible negative impact on healing waters of the Sliač spa within the subsequent stages of project preparation.
	Total	-6		

Expressway R2	Territorial sector No.16: Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Olšany		TEN-T: section of the new planned comprehensive network	
1/ Strategic transport and settlement aspects				
Number	↓ Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Part of the major transport and development axis of SR as well as of the transport region, LC/RS-KE/PO	+1	35, 36, 37, 38, 67, 14, 68, 69, 15	
2	BA-ZV-LC-KE, medium value west - east BA-DS-NZ-LC-KE, minimum value west - east	+1 0	35, 36, 37, 38, 67, 14, 68, 69, 15	
3	X	0		
4	2 lanes in 2040	-2	35, 36, 37, 38, 67, 14, 68, 69, 15	
		0		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 13 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, an improvement of the situation is expected.	+2	35, 36, 37, 38, 67, 14, 68, 69, 15	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a minimum impact on the public health (reduction of noise and emission pollution) is expected.	0	35, 36, 37, 38, 67, 14, 68, 69, 15	
	Total	+2		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as less significant. Indirect impacts during the construction and operation are expected in particular.	-1	38, 67, 68, 69, 15	Consistently implement all measures to mitigate the impacts of construction specified in the EIA process

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	<p>The expressway route directly impacts marginal part of the protection zone of the Národný park Slovenský kras national park (western tunnel portal and the access road to the eastern tunnel portal). Tunnel in its entire length is situated underneath the National Park Slovenský kras. Following protected areas were identified in the broader territory (in a corridor of approx. 1000 m):</p> <ul style="list-style-type: none"> <li>• NP Slovenský kras and its protection zone</li> <li>• NPR Hrušovská lesostep - runs in a close vicinity without any contact</li> <li>• NPR Brzotínske skaly</li> <li>• NPR Turniansky hradný vrch</li> <li>• NPR Pod Strážnym hrebeňom</li> <li>• NPP Hrušovská jaskyňa cave</li> <li>• NPP Krásnohorská jaskyňa cave</li> <li>• PP Jovické rašelinisko peat bog</li> <li>• PR Zemné hradisko</li> <li>• CHA Slaná</li> </ul>			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. The route of R2 in this sector crosses an area with high natural value, where it will affect or directly impact following areas (corridor of approx. 1 000 meters):</p> <ul style="list-style-type: none"> <li>• SKCHVU003 Cerová vrchovina – Porimavie</li> <li>• SKCHVU027 Slovenský kras</li> <li>• SKCHVU009 Košická kotlina</li> <li>• SKUEV0363 Ťahan</li> <li>• SKUEV0398 Slaná</li> <li>• SKUEV0343 Plešivské stráne</li> <li>• SKUEV0346 Pod Strážnym hrebeňom</li> <li>• SKUEV0350 Brzotínske skaly</li> <li>• SKUEV0353 Plešivská planina</li> <li>• SKUEV0352 Hrušovská lesostep</li> <li>• SKUEV0356 Horný vrch</li> <li>• SKUEV0737 Palanta</li> </ul> <p>In the section R2 Gombasek - Rožňava, the expressway R2 crosses SPA Slovenský kras and when crossing river it interferes with the SAC Slaná.</p> <p>Further on, it runs from Rimavská Sobota almost to Figa through the SPA Cerová vrchovina - Porimavie. In the section Bátka - Figa západ, the route is getting to the vicinity of the Special area of conservation SAC Ťahan. From Rožňava to Lipovník, the route of R2 runs with no conflict, from Lipovník to Jablonov nad Turňou it crosses the Slovenský kras mountains again. The route is directly interfering with SPA Slovenský kras in a distance of 470 meters, where the western mouth of the Soroška tunnel is located. In the Hrušov cadastre, it passes near SAC Hrušovská lesostep without a direct contact.</p> <p>The section Jablonov nad Turňou – Včeláre runs in a vicinity of the SPA Slovenský kras. In</p>	-1?	35, 36, 37, 38, 67, 68, 14, 69	<p>In sections with close contact or direct crossing of Natura 2000 sites and therefore a negative impact can be expected, it is necessary to perform the assessment of the impact of activities on the favourable state of Natura 2000 sites pursuant to the paragraph 28 of Act No. 543/2002 Coll. to recognise the rate of impact on the subjects of protection.</p>



	<p>section Včeláre – Moldava nad Bodvou, the route of the R2 expressway in the cadastre of Turňa nad Bodvou runs in a vicinity of the Special Protection Area Slovenský kras and the Special area of conservation SAC Horný vrch.</p> <p>The route of R2 from Šaca to Košické Olšany near the village Haniska interferes with the northern tip of SPA Košická kotlina.</p> <p>Detailed assessment of impacts is presented in the Annex 4.</p>			
3	<p>The route affects supraregional as well as regional TSES elements:</p> <ul style="list-style-type: none"> <li>• PBc Zádielska dolina-Havrania skala-Turniansky hradný vrch</li> <li>• NRBc Plešivská planina</li> <li>• NRBc Hrhovské rybníky-Dolný vrch</li> <li>• NRBk terrestrial Sinec – Cerová vrchovina</li> <li>• NRBk terrestrial Drienčanský kras-Lenartovce</li> <li>• NRBK stream Slaná</li> <li>• NRBk Plešivská planina-Zádielska planina</li> <li>• NRBk stream Hornád</li> <li>• Network of regional bio-centres and bio-corridors</li> </ul> <p>Impacts on the landscape and TSES are assessed as less significant, barrier effects are mitigable by measures (overpasses, underpasses)</p>	-1	38, 67, 68, 69, 14, 69	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of quality class 4 in the territorial sector, interference with forests with protective and special function.	-1	35, 67	Minimise the take of agricultural soil and forest lands.
5	Lateral erosion of watercourses and river beds movement, waterlogging in the area of inundation plains will place increased demands on the way of creating embankments and bridges to overcome watercourses.	-1	35, 36, 37, 38	Measures to ensure stability of the rock environment should be planned on the basis of detailed engineering geological and hydrogeological survey in the next level of project documents preparation.
6	There are protection zones of water supply sources in the route.	-1	38, 67	Within the preparation and implementation perform measures to protect the waters.
7	There are protection zones of mineral and thermal waters.	-1	67	Within the preparation and implementation perform measures to protect the waters.
	Total	-7		

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Expressway R3		Territorial sector No.17: MI D1 a R3 Hubová – Trstená – state border SR/Poland		TEN-T: section of the new planned comprehensive network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Outside the major transport and development axis of SR, RK/DK/LM -	0	70, 41, 40, 39, 76		
2	Trstená-DK-RK-BB-ZV-Šahy, minimum value north - south	0	70, 41, 40, 39, 76		
3	RK/DK/LM-Krakow	+1.5	-		
4	4 lanes in 2040	0	70, 41, 40, 39, 76		
	Total	+1.5			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 8 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	70, 41, 40, 39, 76		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	70, 41, 40, 39, 76		
	Total	+3			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Following protected areas were identified in a broader territory (corridor of approx. 1 000 m) <ul style="list-style-type: none"><li>CHA Rieka Orava (<i>protected also as the Ramsar site Rieka Orava and its tributaries</i>) - the route crosses the river several times</li><li>NPR Bielska skala</li><li>PP Oravské hradné bralo</li><li>CHA Ostrá a Tupá skala - indirect interference.</li></ul>	-1	70, 41, 40, 39, 76	Consistently implement all measures to mitigate the impacts of construction specified in the EIA process	

	<ul style="list-style-type: none"> <li>Protection zone of NP Veľká Fatra - the Hubová interchange is located at the periphery</li> </ul> <p>Almost entire route in this territorial sector runs parallel to the Orava river. Even today, the territory of the protected area is burdened with existing transport routes (road I/70, I/59, railway) and anthropogenic impacts. The impact on the territory of the protected area is expected particularly in places of planned bridges, the effect of the structure will be evident only in places of crossings over watercourses, or during the construction, what is connected with the removal of riparian vegetation. Other protected areas will be not affected.</p>			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. Direct interference has been identified with following Natura 2000 sites:</p> <ul style="list-style-type: none"> <li>SKCHVU050 Choč – the route passes through the area in the section from Jasenová</li> <li>SKUEV0243 Orava - multiple crossing or close approach</li> <li>SKUEV0253 Váh</li> </ul> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-1?	70, 41, 40, 39, 76	An appropriate assessment of the impact of activities on the favourable state of the Special Protection Area and on Special Area of Conservation is required, in order to evaluate the severity of impacts on species and habitats, for which are the areas declared.
3	<p>There are several TSES elements in the area, which are affected by the planned route</p> <ul style="list-style-type: none"> <li>Provincial bio-corridor Malá Fatra – Veľká Fatra – Chočské vrchy – Tatry</li> <li>Supraregional bio-corridor the Orava river</li> <li>Supraregional bio-corridor the Váh river</li> <li>Regional bio-centres and bio-corridors stream as well as terrestrial</li> </ul> <p>The route will particularly affect the supraregional stream - terrestrial bio-corridor the Orava river. Impacts on the landscape and TSES are assessed as less significant, barrier effects are mitigable by measures (overpasses, underpasses)</p>	-1	70, 41, 40, 39, 76	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality on the route, interference with forests with protective function.	-1		Minimise the take of forest lands.
5	There are sections with extensive slope deformations and tectonic disturbances on the route.	-1		Measures to ensure stability of the rock environment should be planned on the basis of detailed engineering geological and hydrogeological survey in the next level of project documents preparation.
6	There are protection zones of water supply sources in the route.	-1	41	Within the preparation and implementation perform measures to protect the waters.
7	There are no protection zones of mineral and thermal waters on the route.	0		
	Total	-6		

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Expressway R3		Territorial sector No.18: MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	½ Part of the major transport and development axis of SR, ZA-MT -	+1	42, 43, 44		
2	Part of the section Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+1	42, 43, 44		
3	X	0			
4	2 lanes in 2040 (Martin - Rakovo 4 lanes in 2020)	-2	42, 43, 44		
		0			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 6 black spots and a low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	42, 43, 44		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	42, 43, 44		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	<p>Impacts on the nature protection interests are assessed as less significant. Following areas were identified in the corridor of approx. 1 000 m:</p> <ul style="list-style-type: none"><li>Protection zone of NP Veľká Fatra – marginal part in contact with the route</li><li>CHA Ostrá a Tupá skala - indirect interference</li><li>CHA Žarnovica</li></ul> <p>Outside the route, but relatively close and parallel with almost the entire length there is the NPR Turiec and NPR Kláštorské lúky, which may also be indirectly affected, concerning the subjects of protection.</p>	-1	42,43, 44	Consistently implement all measures to mitigate the impacts of construction specified in the EIA process	

2	<p>Impacts on the Natura 2000 sites are assessed as less significant. Direct interference has been identified with following Natura 2000 sites:</p> <ul style="list-style-type: none"> <li>• SKUEV0382 Turiec a Blatnický potok,</li> <li>• SKUEV0147 Žarnovica</li> </ul> <p>In the section Martin - Rakovom the route is not directly interfering with the SAC Turiec and Blatnický potok, in the section Rakovo - Horná Štubňa it gets in a direct contact with SAC Turiec and Blatnický potok as well as with SAC Žarnovica. The section Horná Štubňa - Šášovské Podhradie interferes with SAC Turiec and Blatnický potok at the upper course of the Turiec river.</p> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-1?	42,43,44	The impact on the Special Areas of Conservation requires an assessment of impact of activities on the favourable state of the area pursuant to the paragraph 28 of the Act No. 543/2002 Coll.
3	<p>There are several TSES elements in the area, which are affected by the planned route</p> <ul style="list-style-type: none"> <li>• RBk Blatnický potok - stream</li> <li>• RBk Trebostovo – Záborie</li> <li>• RBk Kláštor pod Znievom – Mošovce</li> <li>• RBk ecotone Veľká Fatra – Háj – Dolná Štubňa</li> </ul> <p>Impacts on the landscape and TSES are assessed as less significant, barrier effects are mitigable by measures (overpasses, underpasses)</p>	-1	42,43,44	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, minor interference with forests with special function.	-1		Minimise the take of forest lands.
5	The rock environment in the location is assessed as with good bearing capacity, without significant geodynamic events with relatively favourable engineering geological properties.	0		
6	There are protection zones of water supply sources in the route.	-1		Within the preparation and implementation perform measures to protect the waters.
7	There are protection zones of mineral and thermal waters in the route.	-1		Within the preparation and implementation perform measures to protect the waters.
	Total	-6		

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Expressway R3		Territorial sector No.19: EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Outside the major transport and development axis of SR, BB/ZV	0	71		
2	Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+2	71		
	Trstená-DK-RK-BB-ZV-Šahy, minimum value north - south	0			
3	BB/ZV-Budapest	+1.5	71		
4	2 lanes in 2040	-2	71		
	Total	+1.5			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 8 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	71		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	71		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. Following areas were identified in the corridor of approx. 1 000 m: <ul style="list-style-type: none"><li>• CHKO Štiavnické vrchy – direct contact</li><li>• CHA Park in Horné Semerovce</li><li>• CHA Park in Hokovce</li><li>• PP Dudínske travertíny</li><li>• NPR Mäsiarsky bok - direct contact</li></ul>	-1	71	Consistently implement all measures to mitigate the impacts of construction specified in the EIA process	



	<p>There is also the <i>Ramsar site Poiplie</i> in the territory.</p> <p>Together with the existing road I/66, the route is running in contact with CHKO Štiavnické vrchy. Even today, the territory of the protected landscape area is burdened with existing transport routes (road I/66, railway) and anthropogenic impacts. The impact on the territory of the protected landscape area is expected particularly in places of planned tunnels, the effect of the structure will be evident only in places of tunnel mouths, or during the construction, within the transport of excavated material..</p>			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. Following Natura 2000 sites, which are likely to be affected, have been identified within a corridor of 1 000 meters:</p> <ul style="list-style-type: none"> <li>• SKUEV0266 Skalka – direct contact</li> <li>• SKUEV0260 Mäsiarsky bok – can be directly affected by one of considered variants</li> <li>• SKUEV0257 Alúvium Ipľa – probable direct contact</li> <li>• SKCHVU02 Poiplie</li> </ul> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-1?	71	The impact on the Natura 2000 sites requires an assessment of impact of activities on the favourable state of the area pursuant to the paragraph 28 of the Act No. 543/2002 Coll.
3	<p>The most important corridors are:</p> <ul style="list-style-type: none"> <li>• NRBk Východné predhorie Štiavnických vrchov, terrestrial</li> <li>• NRBk Štiavnica, stream - terrestrial</li> <li>• NRBk Hron, terrestrial – stream</li> <li>• NRBk Ipľa, stream</li> <li>• Regional bio-centres and bio-corridors</li> </ul> <p>All TSES elements can be slightly affected, the impact is mitigable by the implementation of measures to improve the passability of the area.</p>	-1	71	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of quality class 2 to 4 in the territorial sector, interference with forests with protective function.	-1		Minimise the take of quality soils and forest lands.
5	There are sections with potential landslides on the route.	-1		Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	There are II. degree protection zones of water supply sources on the route.	-1		Within the preparation and implementation perform measures to protect the waters.
7	There are III. degree protection zones of mineral and thermal waters.	-1		Within the preparation and implementation perform measures to protect the waters.
	Total	-7		

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Expressway R4		Territorial sector No.20: MI D1 and R4 Prešov západ – Svidník – state border SR/Poland		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	1/3 Part of the major transport axis of SR, KE/PO	0	45, 50, 49, 48, 47, 46		
2	Svidník-PO-KE-Milhost', medium value north - south	+1	45, 50, 49, 48, 47, 46		
3	KE/PO-Rzeszow	+1.25	45, 50, 49, 48, 47, 46		
4	2 lanes in 2040, (Nižná Šebastová - Hanušovce nad Topľou 4 lanes in2020)	-2	45, 50, 49, 48, 47, 46		
	Total	+0.25			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 13 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, an improvement of the situation is expected.	+2	45, 50, 49, 48, 47, 46		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	45, 50, 49, 48, 47, 46		
	Total	+3			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as less significant. Identified protected areas in the corridor of 1 000 meters include: <ul style="list-style-type: none"><li>• CHKO Východné Karpaty – direct contact at the border of SR</li><li>• PR Dranec – possible marginal contact</li></ul>	-1	46		

2	<p>Impacts on the Natura 2000 sites are assessed as less significant. Interference has been identified with following Natura 2000 sites:</p> <ul style="list-style-type: none"> <li>• SKUEV0048 Dukla – possible marginal contact</li> <li>• SKCHVU011 Laborecká vrchovina – the route crosses the area</li> <li>• SKCHVU025 Slanské vrchy – indirect impact only, direct contact is not expected, corridor of the route is in contact</li> </ul> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-1?	46.50	The impact on the Natura 2000 sites requires an assessment of impact of activities on the favourable state of the area pursuant to the paragraph 28 of the Act No. 543/2002 Coll.
3	<p>The route will slightly affect TSES elements, which are in contact or crossed by the route</p> <ul style="list-style-type: none"> <li>• NRBk Ondava-Ladomirka – stream</li> <li>• NRBk Topľa – stream</li> <li>• NRBk Čergov – Domaša – terrestrial</li> <li>• NRBc Dukla</li> <li>• NRBc Stráže</li> <li>• NRBc Korunkov</li> <li>• Regional bio-centres and bio-corridors</li> </ul> <p>The impact is expected to be the most intense on the river Ondava and Ladomirka, in valleys of which the route is running. The watercourses are crossed several times.</p>	-1	45, 49, 48, 47, 46	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are soils of medium and lesser quality in the territorial sector, impact particularly on forests with commercial function, local impact on forests with special and protective function	-1	45 - 50	Minimise the land take
5	There are sections with extensive slope deformations and potential, even active landslides on the route, difficult conditions for the construction of tunnels.	-1	46 - 50	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	<p>The territorial sector is not a part of any protected water management area.</p> <p>The northern part of the territorial sector falls under the water catchment area of the Ondava river and II and III. degree protection zone of water supply source.</p>	-1	46, 47, 48, 49	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-6		

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Expressway R5		Territorial sector No.21: MI D3 and R5 Svrčinovec - state border SR/Czech Republic		TEN-T: section of the new planned comprehensive network	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, national system of protected areas, Territorial system of ecological stability (ÚSES), Agricultural and forest fund, rock environment, special protection areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major transport and development axis of SR,	0	16		
2	Skalité/Svrčinovec-ZA-MT-ZV-Šahy, maximum value north - south	+2	16		
3	ZA/MT-Ostrava	+1	16		
4	4 lanes in 2040	0	16		
	Total	+3			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There was 1 black spot on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	16		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	16		
	Total	+3			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, there are no protected areas in a 1 000 m corridor either	0			
2	There are no Natura 2000 sites in the section, there is no conflict on the route.	0			
3	Crossing of NRBk Malý Polom – Veľká Rača	-1	16	Ensure consistent implementation of measures to improve the passability of the	

				area and to eliminate the barrier effect
4	There are soils of lesser quality in the territorial sector, interference with forests with commercial function.	-1	16	Minimise the land take
5	There are sections with slope deformations with potential landslides on the route.	-1	16	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The territorial sector is a part of the CHVO Beskydy - Javorníky	-1	16	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-4		

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Expressway R6		Territorial sector No.22: MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic		TEN-T: section of the new planned core network	
1/ Strategic transport and settlement aspects					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Part of the major development axis of SR, PB/PU-	+1	17, 51		
2	X	0			
3	PB/PU-Zlín	+0.5	17, 51		
4	2 lanes in 2040	-2	17, 51		
	Total	-0.5			
2/ Public health					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	There were 2 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector.	0	17, 51		
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	17, 51		
	Total	+2			
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments	
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, there are no protected areas in a 1 000 m corridor either	0			
2	There are no Natura 2000 sites in the section, there is no conflict on the route.	0			
3	The route crosses several supraregional bio-corridors: <ul style="list-style-type: none"><li>NRBk interconnection between Vršatské bradlá and Veľký Javorník – terrestrial</li><li>NRBk Vršatské bradlá – Ladonhora - terrestrial</li></ul>	-1	17, 51	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect	

	• NRBk Váh - stream			
4	There are soils of lesser quality in the territorial sector, interference with forests with commercial function Minor take of forests with protective function.	-1	17, 51 51	Minimise the land take
5	There are extensive sections with slope deformations with potential landslides on the route.	-1	17, 51	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The territorial sector is a part of the CHVO Beskydy - Javorníky, interference with the II. degree protection zone of water supply sources.	-1	17, 51	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Total	-4		



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Expressway R7	Territorial sector No.23: MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)	TEN-T: section not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Outside the major transport and development axis of SR, BA -	0	19, 20, 21, 52	
2	BA-DS-NZ-LC-KE, minimum value west - east	0	19, 20, 21, 52	
3	X	0		
4	4 lanes in 2020	+2	19, 20, 21, 52	
	Total	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 15 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, an improvement of the situation is expected.	+2	19, 20, 21	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	19, 20, 21	
	Total	+3		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Several Natura 2000 sites are located in a corridor of approx. 1 000 m, significant negative impact is not expected: <ul style="list-style-type: none"><li>• CHKO Dunajské Luhy (<i>protected also as the Ramsar site Dunajské luhy</i>)</li><li>• PP Panský diel</li><li>• PR Kopáčsky ostrov</li><li>• PR Topoľové hony</li><li>• PR Gajc</li><li>• CHA Park in Kráľovičove Kračany</li></ul>	-1	19, 20, 52	Consistently implement all measures to mitigate the impacts of the construction specified in the EIA process

2	<p>Impacts on the Natura 2000 sites are assessed as less significant. There are several Natura 2000 sites in the territorial sector, which are crossed or affected by the route of R7:</p> <ul style="list-style-type: none"> <li>• SKCHVU007 Dunajské luhy</li> <li>• SKUEVO295 Biskupické luhy</li> </ul> <p>In the section of the R7 expressway from Bratislava Prievoz to Bratislava Ketelec, one of the designed variants passes in close vicinity of SPA Dunajské luhy and SAC Biskupické luhy. In the section of the R7 expressway from Bratislava Ketelec to Dunajská Lužná, the route passes in the vicinity of SAC Biskupické luhy as well as SPA Dunajské luhy. Detailed assessment of impacts is presented in the Annex 4.</p>	-1	19, 20, 21,	<p>In May 2013, the company Ekojet, Ltd. from Bratislava has elaborated for the section Bratislava – Ketelec – Bratislava-Prievoz (project 19) an "Assessment of impacts of the structure on Natura 2000 sites for the section of R7 Bratislava – Ketelec – Bratislava-Prievoz".</p> <p>Based on the evaluation of impact on the subject of protection, it was possible to state that the planned activity has a slightly negative effect on the integrity of the SAC in the specific section.</p> <p>In July 2008, the company RENATUR, Ltd. from Kuchyňa has conducted studies for the section of R7 Bratislava – Dunajská Lužná (project 20) within the EIA process - Impact of planned expressway R7 Bratislava - Dunajská Lužná on the area of Biskupické luhy and the Study of impact of planned activity on birds. According to this assessment, the preferred variant (red) has a negative impact on the Natura 2000 sites. <b>It would be necessary to confirm the significance of the impact by the assessment pursuant to Article 6 (3) and 6 (4) of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.</b></p> <p>Concerning the section of R7 Holice – Dunajská Streda (project 52), the Study on the assessment of impact of the expressway R7 Holice - Dunajská Streda on Natura 2000 sites pursuant to Article 6 (3) and 6 (4) of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora has been elaborated in November 2011. The corridor of R7 Holice – Dunajská Streda does not constitute a potential threat to Special Areas of Conservation, both in the construction phase as well as in the phase after the implementation.</p> <p>In the section Dunajská Lužná - Holice (project 21), there is no interference with Natura 2000 sites, it is not necessary to elaborate an appropriate assessment.</p>
3	<p>There are several supraregional TSES elements in the area, which are crossed or in contact with the route.</p> <ul style="list-style-type: none"> <li>• NRBc Bratislavské luhy</li> <li>• NRBk Topoľové hony – Malý Dunaj</li> <li>• RBk Vieska, Jastrabie Kračany-Mličanský kanál</li> </ul> <p>Several ecoducts and underpasses are planned to mitigate the barrier effect.</p>	-1	19, 20, 21, 52	<p>Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect</p>
4	<p>There are best quality soils of quality class 1 to 4 in the territorial sector, impact mostly on commercial forests and on forests with special function, partial impact on forests with protective function.</p>	-1	19, 21, 52	<p>Minimise the land take</p>
5	<p>The territorial sector is located in a flat area, a route running in a cutting could activate local landslides</p>	-1	19	<p>Within the preparation and implementation perform measures to ensure the stability of the rock environment</p>

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6	The entire territorial system is a part of the CHVO Žitný ostrov, neither water supply sources nor protection zones are located in the area.	-1	19, 20, 21, 52	Within the preparation and implementation perform measures to protect the waters
7	There are sources of natural healing waters Čílistov in the territorial sector, the route interferes with its II. degree protection zone.	-1	20, 21	Within the preparation and implementation perform measures to protect these waters
	Total	-7		

Expressway R7	Territorial sector No.24: EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	TEN-T: section not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Outside the major transport and development axis of SR, NZ/KN-LC/RS	0	53, 72, 73, 74	
2	BA-DS-NZ-LC-KE, minimum value west - east	0	53, 72, 73, 74	
3	X	0		
4	2 lanes in 2040	-2	53, 72, 73, 74	
	Total	-2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 10 black spots and low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, an improvement of the situation is expected.	+2	53, 72, 73, 74	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road infrastructure, a slightly positive impact on the public health (reduction of noise and emission pollution) is expected.	+1	53, 72, 73, 74	
	Total	+3		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as non-significant. There are several variants of the route considered in the area. Protected areas in the territory are of smaller area, therefore it is possible to adjust the route so that the direct contact would be avoided,	0	72,73,74	Consistently implement all measures to mitigate the impacts of the construction specified in the EIA process

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	<p>significant impacts are not expected:</p> <ul style="list-style-type: none"> <li>• PP Potok Chrenovka - crossing by a bridge, pillars will be placed outside the protected area borders, direct impact is not expected</li> <li>• CHA Kráľovičova slatina</li> <li>• PR Hlohýňa</li> <li>• PP Zlepencova terasa</li> <li>• CHA Cerinsky potok</li> <li>• PP Kosihovsky Kamenný vrch</li> <li>• PR Čebovska lesostep</li> <li>• CHA Holica</li> <li>• PR Cudeninsky močiar</li> <li>• PR Ipeľské hony</li> <li>• PR Ryžovisko</li> <li>• CHA Volavčia kolónia</li> <li>• PR Dálovský močiar</li> <li>• PR Dedinská Hora</li> </ul> <p>There is also the <i>Ramsar site Poiplie</i> in the territory.</p>			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. Several Natura 2000 sites are located in the territory:</p> <ul style="list-style-type: none"> <li>• SKCHVU005 Dolné Považie - crossing</li> <li>• SKCHVU021 Poiplie - contact with a variant of the route</li> <li>• SKUEV0084 Zátoň</li> <li>• SKUEV0261 Dedinská hora</li> <li>• SKUEV0086 Krivé Hrabiny</li> <li>• SKUEV0054 Cudenínsky močiar</li> <li>• SKUEV0055 Ipeľské hony</li> <li>• SKUEV0257 Alúvium Ipľa</li> <li>• SKUEV0365 Dálovský močiar</li> </ul> <p>Detailed assessment of impacts is presented in the Annex 4.</p>	-1	53, 72, 73, 74,	<p>Appropriate assessment pursuant to Article 6 (3) and 6 (4) of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora shall be elaborated for the R7 section Dunajská Streda – Nové Zámky (project 53), where the route crosses the SPA Dolné Považie.</p> <p>A study on impacts of R7 Nové Zámky - Čaka on SPA Dolné Považie (project 72) has been elaborated in November 2011. Concerning the results of the research on birds in the broader area as well as directly on the route of planned expressway and of the monitoring of selected bird species within SPA Dolné Považie, it is possible to state that the planned expressway will not have a negative impact on SPA Dolné Považie.</p> <p>Concerning the section Čaka - Veľký Krtíš (project 73), several variants are assessed in the EIA process, variants. Variants, which could affect the Natura 2000 sites, will require an appropriate assessment.</p> <p>In April 2011, an assessment of impacts of the project on the Natura 2000 sites has been elaborated for the section Veľký Krtíš - Lučenec (project 74). The aim of the assessment was to evaluate whether the expressway R7 in the section Veľký Krtíš – Lučenec will have a significant negative impact on the subjects of protection and the integrity of Natura 2000 sites: SKCHVU021 Poiplie, SKUEV0365 Dálovský Močiar and SKUEV0261 Dedinská hora. Results show that the construction and operation of the expressway R7 in the section Veľký Krtíš – Lučenec, in variants B and B1, will have a significant impact and will negatively affect the habitat and species that are subject to protection SKUEV0365 Dálovský močiar a SKCHVU021 Poiplie. It was concluded that pursuant to Article 6 (4) of the Directive 92/43/EEC, there is an alternative solution in the territory, which is comparable in terms of social, economic and technical aspects and that there is</p>

				another available layout of the route as in variants B and B1.
3	<p>There are important TSES elements in the territory, crossed by the route</p> <ul style="list-style-type: none"> <li>• NRBk Malý Dunaj</li> <li>• NRBk Váh</li> <li>• NRBk Rieka Nitra - stream</li> <li>• NRBk Rieka Hron - stream</li> <li>• NRBk Ipeľ - stream - terrestrial bio-corridor</li> <li>• NRBk Končitý vrch – Lysec</li> <li>• Regional bio-corridors and bio-centres</li> </ul> <p>The connectivity and functionality of bio-corridors is provided by adequately long span of bridges through which the route is crossing the area.</p>	-1	53, 72, 73, 74	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are quality soils of quality class 1 to 4 in the territorial sector, marginal interference with forests with protective function.	-1	53, 72, 73	Minimise the take of quality soils.
5	There are no landslide areas on the route.	0		
6	There are protection zones of water supply sources in the route.	-1	53, 72, 74	Within the preparation and construction perform measures to protect the waters.
7	In the concerned area, there are II. degree protection zones of mineral and thermal waters Šarovce and III. degree protection zones of mineral and thermal waters Santovka, Slatina, Dudince.	-1	53, 73	Within the preparation and construction perform measures to protect the waters.
	Total	-5		

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Expressway R8		Territorial sector No.25: EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy		TEN-T: section not included
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Outside the major transport and development axis of SR, NR -	0		
2	X	0		
3	X	0		
4	2 lanes in 2040	-2	75	
	Total	-2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	There were 6 black spots and a low density of traffic accidents on roads substituting the function of planned structure in the sector. Due to the shift of a greater part of traffic on the planned infrastructure, a slight improvement of the situation is expected.	+1	75	
2	In respect of the extent of the routing of planned road infrastructure construction projects outside the built-up area and related redistribution of traffic between the planned and existing road, a significant positive impact on the public health (reduction of noise and emission pollution) is expected.	+2	75	
	Total	+3		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures / comments
1	Impacts on the nature protection interests are assessed as non-significant. There is no direct contact with a protected area in the sector, in a 1 000 m corridor, there is PR Chynoriensky luh, impact is not expected.	0		
2	Impacts on the Natura 2000 sites are assessed as less significant. Impacts on Natura 2000 sites are expected: <ul style="list-style-type: none"><li>SKCHVU031 Tribeč - direct contact and crossing</li><li>SKUEV0589 Chynoriensky luh - the area is located within the 1 000</li></ul>	-1	75	The Assessment of impacts of the construction and operation of the expressway R8 on the SPA Tribeč has been elaborated in April 2010. The results show that the impact of construction and operation of R8 on selected species of birds in CHVU Tribeč is



	m corridor of the route, impact is not expected. Detailed assessment of impacts is presented in the Annex 4.			non-significant, or less significant.
3	The route is running parallel to the stream NRBk Nitra, which is crossed twice. Impacts	-1	75	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are quality soils of quality class 1 to 4 in the territorial sector, marginal interference with commercial forests.	-1		Minimise the take of quality soils.
5	Implementation of cuttings could lead to the activation of geodynamic events.	-1		Perform detailed engineering geological and hydrogeological survey in the subsequent levels of the project preparation.
6	There are no protection zones of water supply sources in the route.	0		
7	There are no protection zones of mineral and thermal waters on the route.	0		
	Total	-4		

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Table 6 Summary table of impacts of road infrastructure measures by territorial sectors

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock	Water	Natural healing waters	Nature protection - National System of parks	Natura 2000	TSES	Total
Number	Localisation											
1	MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava	6.00	1.00	0.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	1.00
2	MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin	8.00	2.00	1.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	5.00
3	MI D1 and R3 Martin – MI D1 and R3 Hubová	5.00	1.00	1.00	-1.00	-2.00	-1.00	0.00	-1.00	-2.00	-2.00	-2.00
4	MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová	5.00	1.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	1.00
5	MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ	5.00	2.00	0.00	-1.00	-1.00	0.00	-1.00	0.00	0.00	0.00	4.00
6	MI D1 and R4 Prešov západ – MI D1 and R2 Košické Oľšany - Bidovce	7.00	2.00	1.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-1.00	5.00
7	Bidovce – Vyšné Nemecké – state border SR/Ukraine	2.00	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
8	MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec	7.00	2.00	0.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	5.00
9	MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland	2.00	0.00	2.00	-1.00	-2.00	-1.00	0.00	0.00	0.00	-1.00	-1.00
10	MI D4 and D2 Bratislava Jarovce - MI D4 and D2 Stupava juh - state border SR/Austria	2.50	0.00	1.00	-1.00	-1.00	-2.00	0.00	-2.00	-2.00	-1.00	-5.50
11	MI D4 and R1 Most pri Bratislave – EI R1 Sereď	4.00	1.00	1.00	-1.00	0.00	-1.00	0.00	0.00	-2.00	-1.00	1.00
12	EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka	-2.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-2.00	-2.00	-1.00	-11.00
13	MI D1 and R2 Chocholná – EI R2 and R8 Brezolupy – Pravotice	2.00	1.00	0.00	-1.00	-1.00	-1.00	-1.00	0.00	0.00	-1.00	-2.00
14	Pravotice – EI R2 and R1 Žiar nad Hronom juh	0.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-4.00
15	EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany	2.00	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.00	-1.00	-2.00
16	Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany	0.00	2.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-5.00
17	MI D1 a R3 Hubová – Trstená – state border SR/Poland	1.50	1.00	2.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.50
18	MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie	0.00	1.00	1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-4.00
19	EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary	1.50	1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.50
20	MI D1 and R4 Prešov západ – Svidník – state border SR/Poland	0.25	2.00	1.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-2.75

Territorial sector		Transport - settlement	Safety	Health	Soil	Rock	Water	Natural healing waters	Nature protection National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation											
21	MI D3 and R5 Svrčinovec - state border SR/Czech Republic	3.00	1.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	2.00
22	MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	-0.50	0.00	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-2.50
23	MI D1 and R7 Bratislava Prievoz – EI R7 and I/63 Dunajská Streda (Kútniky)	2.00	2.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-2.00
24	EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	-2.00	2.00	1.00	-1.00	0.00	-1.00	-1.00	0.00	-1.00	-1.00	-4.00
25	EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy	-2.00	1.00	2.00	-1.00	-1.00	0.00	0.00	0.00	-1.00	-1.00	-3.00

Explanatory notes: MI - motorway interchange, EI - expressway interchange

## **ANNEX 2.2**

**Assessment of SPRDI SR 2020 and SRVOND SR 2020 measures relating to the railway, air, inland waterway, public passenger, non-motorised and intermodal transport**



Table 1 Distribution of project sections of railway lines and nodes into assessed territorial sectors

Railway projects - upgrading/green projects				
Territorial sector		Project		
Number	Localisation	Number	Railway line	Section
1	Bratislava	1	100	Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation
		2	120	Integrated Transport System BA - reconstruction and upgrading of the railway stop Bratislava - Vinohrady, implementation (Bratislava Hlavná stanica (Central station) - Rača)
2	Bratislava – Kúty – state border SR/Czech Republic	3	110	Deployment of ERTMS in the corridor No. IV Kúty, state border SR/Czech Republic - node Bratislava (ETCS L2 + GSM R), implementation
3	Púchov - Žilina	4	120	Upgrading of the railway line Púchov - Žilina, for a line speed of up to 160 km/h - Stage I. - (Púchov - Považská Teplá)
		5	120	Upgrading of the railway line Púchov - Žilina, for a line speed of up to 160 km/h, Stage II. - (section Považská Teplá /outside/ - Žilina /outside/)
4	Žilina	6	120, 180, 127	Node Žiline, Completion of marshalling yard in Žilina - Teplička and a follow up railway infrastructure, implementation
5	Žilina-Košice	7	180	Upgrading of the railway line Žilina - Košice, section Liptovský Mikuláš - Poprad Tatry (outside), implementation of sections Poprad-Tatry - Lučivná and Paludza - Liptovský Hrádok
		8	180	Upgrading of the railway line Žilina - Košice, section - Poprad Tatry (outside) - Krompachy, implementation of the section Spišská Nová Ves - Poprad-Tatry
7	Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine	9	190	Čierna nad Tisou, modernisation of node, project documents + implementation
8	Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	10	130, 135	Deployment of the ERTMS in the corridor No. IV Bratislava - Nové Zámky - Štúrovo / Komárno, (ETCS L2 + GSM R), implementation
9	Zvolen-Košice	11	160	Electrification of the track Haniska pri Košiciach - Moldava nad Bodvou, implementation
10	Michalany – Humenné - Medzilaborce	12	191	Electrification of the track Bánovce nad Ondavou - Humenné, implementation

Table continuation

Railway projects - upgrading/yellow projects				
Territorial sector		Project		
Number	Localisation	Number	Railway line	Section
11	Žilina – Čadca – state border SR/Czech Republic	13	127	Upgrading of corridor state border Czech Republic/SR - Čadca - Krásno nad Kysucou (outside), railway line, implementation
5	Žilina-Košice	14	180	Upgrading of the railway line Žilina - Košice, section Kysak - Košice, implementation
		15	180	Košice - Kostoľany nad Hornádom (pilot structure for the integrated rail transport), implementation
1	Bratislava	16		Node Bratislava - Integrated Transport System Bratislava, implementation
		17		Node Bratislava – upgrading of section Predmestie - Rača, project documents and implementation
		18		Node Bratislava - railway connection to the M.R. Štefánik airport Bratislava, reconstruction of a railway bridge near Nové Mesto, implementation
		19		Node Bratislava - Bratislava hl. stanica - Bratislava Nové Mesto, doubling of the railway track
		20		Node Bratislava – Construction of transfer point BA Vinohrady - BA-Predmestie, project documents and implementation
		21		Node Bratislava - railway connection to the M.R. Štefánik airport Bratislava, completion of project documents and implementation
		22		Creation of interoperability conditions in the node Bratislava, implementation according to the final variant
9	Zvolen-Košice	23	160	Zvolen - Fiľakovo, electrification of the track, implementation
		24	160	Electrification and optimisation of the line Fiľakovo - Moldava nad Bodvou, implementation
14	Leopoldov – Nitra - Šurany	25	141, 140	Electrification and optimisation of the line Leopoldov - Nitra - Šurany, implementation

Table continuation

Railway projects - upgrading/red projects				
Territorial sector		Project		
Number	Localisation	Number	Railway line	Section
13	Bratislava - Komárno	27	131	Bratislava Nové Mesto - Dunajská Streda - Komárno, doubling and electrification of the track



Table 2 Distribution of project structures of the intermodal transport into assessed territorial sectors

Intermodal transport projects- construction/yellow projects				
Territorial sector		Project		
Number	Localisation	Number	Intermodal Transport Terminal	Name
6	Košice	25	Košice Bočiar	Intermodal Transport Terminal Košice, stage I. of construction
12	Leopoldov	26	Leopoldov (cadastral area Hlohovec-Šulekovo)	Intermodal Transport Terminal Leopoldov, stage I. of construction

Table continuation

Projects of intermodal transport - construction/red projects				
Territorial sector		Project		
Number	Localisation	Number	Intermodal Transport Terminal	Name
1	Bratislava	28	Bratislava	Intermodal Transport Terminal Bratislava, stage I. of construction
4	Žilina	29	Žilina (cadastral area Teplica nad Váhom)	Intermodal Transport Terminal Žilina, stage I. of construction

Table 3 Distribution of project structures of the air transport into assessed territorial sectors

Air transport projects - construction/green projects				
Territorial sector		Project		
Number	Localisation	Number	Airport	Name
1	Bratislava	1	M. R. Štefánik Airport Bratislava	Upgrading and extension of RWY 13/31 at M. R. Štefánik airport in Bratislava
21	Poprad-Vysoké Tatry	2	Poprad - Tatry	Upgrading of RWY a TWY at Poprad - Tatry airport
6	Košice	3	Košice	Terminal building for air cargo services at Košice airport
		4	Košice	Hangar for aircrafts with code "C" a "D" at the Košice airport

Table 4 Distribution of project structures of the inland waterway transport into assessed territorial sectors

Inland waterway transport projects - construction/green projects				
Territorial sector		Project		
Number	Localisation	Number	Waterway	Name
1	Bratislava	1	Danube	Implementation of Technical Measures to Remove Barriers and Resolving Navigability of the Danube River, km 1880,260 - 1862,000 (Classification of structures No. 2151 and 2152)

Table 5 Distribution of project measures of the public passenger and non-motorised transport into assessed territorial sectors

Measures of the public passenger and non-motorised transport				
Territorial sector		Measure		
Number	Localisation	Number	Name	VOND* projects
1	Bratislava	OP17	Establishment of integrated transport systems, integration of public passenger transport in Western functional region	Bratislava
15	Trnava			Trnava
6	Košice		Establishment of integrated transport systems, integration of public passenger transport in the Eastern functional region	Košice
16	Prešov			Prešov
21	Poprad-Vysoké Tatry			Poprad-Vysoké Tatry
17	Banská Bystrica		Implementation of integrated transport systems, integration of public passenger transport in the Central - Southern functional region	Banská Bystrica
18	Zvolen			Zvolen
4	Žilina		Establishment of integrated transport systems, integration of public passenger transport in the Central - Northern functional region	Žilina
19	Trenčín			Trenčín
20	Martin			Martin

VOND\* projects - measure No. OP 17 has an organisational character, the precondition of its practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

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Table 6 Environmental objectives, indicators, score. Infrastructure of railway transport and inland waterway transport.

1/ Strategic transport and settlement aspects					
Number of criterion	Objective:→	Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
	↓Question	↓Indicator	Score		
			+2	0	-2
1	Is the localisation of the transport infrastructure (TI) according to SPRDI SR 2020 supporting the access to basic and transport services, to the market within the transport regions?	Localisation of TI in the context of transport and development axes, and transport centres/settlement core areas/polycentric systems	TI on the link between centres/settlement core areas/polycentric systems in the corridor of major axes	TI one centre, secondary axes	TI outside major centres and major axes
2	What is the settlement continuity of TI in border regions of neighbouring countries	Population of regions that represent targets of TI beyond the borders of SR and the density of their population	Highest values	Lowest values	
2/ Public health					
Number of criterion	Objective:→	To reduce the level of negative impacts of the transport sector on the health of population			
	↓Question	↓Indicator	Score		
			+2	0	-2
1	Is the construction of TI in compliance with the protection of public health in terms of emissions of pollutants and noise?	Electrification and upgrading of transport infrastructure	The TI will be electrified, upgraded in the entire territorial sector	The TI will be electrified, upgraded partially or not at all	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Objective:→	To minimise interferences with protected areas, NATURA 2000 sites and TSES			
	↓Question	↓Indicator	Score		
			+2	0	-2
1	Is there a contact with protected areas in protection degree 2 to 5 in national system of protected areas?	The number and intensity of interferences with protected areas within the national system		No interference	Highest values

2	Is there a contact with Natura 2000 sites?	Number and intensity of interferences with Natura 2000 sites		No interference	Highest values
3	Are the TSES elements affected?	The number and intensity of interferences with TSES elements		No interference	Highest values
4	Will the implementation of TI projects cause a take of best quality soils and forests with a special function?	Take of the best quality soils and forests with a protective function		No land take	Extensive take of best quality soils in the area and forests with protective and special function
5	Is the implementation of TI projects causing an increase in the risk of the rock environment instability?	Interference with unstable or geologically potentially unstable area	Implementation of TI significantly reduces the risk	No risk	Significant risk of the rock environment instability
6	Will the implementation of TI projects affect the water management interests in the area?	Interference with groundwater sanitary protection zones and protected water management areas		No interference	Significant interference with the threat to significant quantities of drinking water
7	Will the implementation of TI projects cause an interference with protection zones of healing and mineral water sources?	Interference with protection zones of healing and mineral water sources		No interference	Potential significant interference requiring implementation of measures

Table 7 Environmental objectives, indicators, score. Infrastructure of the air transport and intermodal transport.

1/ Strategic transport and settlement aspects					
Number of criterion	Objective:→	Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is the localisation of the transport infrastructure (TI) according to SPRDI SR 2020 supporting the access to basic and transport services, to the market within the transport regions?	Localisation of TI in the context of transport and development axes, and transport centres/settlement core areas/polycentric systems	TI on the link between centres/settlement core areas/polycentric systems in the corridor of major axes	TI one centre, secondary axes	TI outside major centres and major axes
2/ Public health					
Number of	Objective:→	To reduce the level of negative impacts of the transport sector on the health of population			
	↓ Question	↓ Indicator	Score		

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criticon			+2	0	-2
1	Is the construction of TI in compliance with the protection of public health in terms of emissions of pollutants and noise?	Contact of the new infrastructure with settled territory in terms of the production of noise and greenhouse gas emissions.		No changes	Expected increase of noise and emission pollution
<b>3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs</b>					
Number	Objective:→	To minimise interferences with protected areas, NATURA 2000 sites and TSES			
	↓Question	↓Indicator	Score		
			+2	0	-2
1	Is there a contact with protected areas in protection degree 2 to 5 in national system of protected areas?	The number and intensity of interferences with protected areas within the national system		No interference	Highest values
2	Is there a contact with Natura 2000 sites?	Number and intensity of interferences with Natura 2000 sites		No interference	Highest values
3	Are the TSES elements affected?	The number and intensity of interferences with TSES elements		No interference	Highest values
4	Will the implementation of TI projects cause a take of best quality soils and forests with a special function?	Take of the best quality soils and forests with a protective function		No land take	Extensive take of best quality soils in the area and forests with protective and special function
5	Is the implementation of TI projects causing an increase in the risk of the rock environment instability?	Interference with unstable or geologically potentially unstable area	Implementation of TI significantly reduces the risk	No risk	Significant risk of the rock environment instability
6	Will the implementation of TI projects affect the water management interests in the area?	Interference with groundwater protection zones and protected water management areas		No interference	Significant interference with the threat to significant quantities of drinking water
7	Will the implementation of TI projects cause an interference with protection zones of healing and mineral water sources?	Interference with protection zones of healing and mineral water sources		No interference	Potential significant interference requiring implementation of measures

Table 8 Environmental objectives, indicators, score. Infrastructure of the public passenger and non-motorised transport (VOND)

1/ Strategic transport and settlement aspects					
Number of criterion	Objective:→	Ensuring access to basic and transport services, market, internal and external regional and cross-border cohesion			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is the localisation of the transport infrastructure (TI) according to SPRDI SR 2020 supporting the access to basic and transport services, to the market within the transport regions?	Localisation of TI in the context of transport and development axes, and transport centres/settlement core areas/polycentric systems	TI on the link between centres/settlement core areas/polycentric systems in the corridor of major axes	TI one centre, secondary axes	TI outside major centres and major axes
2/ Public health					
Number of criterion	Objective:→	To reduce the level of negative impacts of the transport sector on the health of population			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is the construction of TI in compliance with the protection of public health in terms of emissions of pollutants and noise?	Contact of the new infrastructure with settled territory in terms of the production of noise and greenhouse gas emissions.		No changes	Expected increase of noise and emission pollution
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs					
Number	Objective:→	To minimise interferences with protected areas, NATURA 2000 sites and TSES			
	↓ Question	↓ Indicator	Score		
			+2	0	-2
1	Is there a contact with protected areas in protection degree 2 to 5 in national system of protected areas?	The number and intensity of interferences with protected areas within the national system		No interference	Highest values
2	Is there a contact with Natura 2000 sites?	Number and intensity of interferences with Natura 2000 sites		No interference	Highest values

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3	Are the TSES elements affected?	The number and intensity of interferences with TSES elements		No interference	Highest values
4	Will the implementation of TI projects cause a take of best quality soils and forests with a special function?	Take of the best quality soils and forests with a protective function		No land take	Extensive take of best quality soils in the area and forests with protective and special function
5	Is the implementation of TI projects causing an increase in the risk of the rock environment instability?	Interference with unstable or geologically potentially unstable area	Implementation of TI significantly reduces the risk	No risk	Significant risk of the rock environment instability
6	Will the implementation of TI projects affect the water management interests in the area?	Interference with groundwater sanitary protection zones and protected water management areas		No interference	Significant interference with the threat to significant quantities of drinking water
7	Will the implementation of TI projects cause an interference with protection zones of healing and mineral water sources?	Interference with protection zones of healing and mineral water sources		No interference	Potential significant interference requiring implementation of measures

### Explanatory notes:

The assessment includes conventional railway lines and nodes with planned investment projects within the Strategic plan

### TI - Transport Infrastructure:

- in the railway transport railway lines of I. class of international importance, lines of national importance, railway nodes
- in the air transport international airports in Slovakia TEN-T network
- in the intermodal transport intermodal transport terminals (TIP)

### Scope of impact evaluation

- 2 significant negative impact
- 1 slightly negative impact, reducible by measures
- 0 zero or negligible impact
- +1 slightly positive impact
- +2 significant positive impact
- ? not enough information for evaluation
- X no relevant section

### Scope of Natura 2000 impacts evaluation



-2 significant negative impact (very significant impact)

-1 slightly negative impact (less significant impact)

0 zero impact (non-significant impact)

-1? Probably less significant impact, it is necessary to confirm it or to exclude the significant negative impact through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)

-2? Probably less significant impact, it needs to be confirmed or excluded through an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)

#### Abbreviations:

KE/PO – core settlement area, as a part of a core settlement area following cities are mentioned: BA - Bratislava, ZA – Žilina, KE – Košice, TT – Trnava, NR – Nitra, TN – Trenčín, BB – Banská Bystrica, PO – Prešov, MT – Martin, ZV – Zvolen, NZ – Nové Zámky, KN – Komárno, PD – Prievidza, PU – Púchov, PB – Považská Bystrica, RK - Ružomberok, DK – Dolný Kubín, LM – Liptovský Mikuláš, PP – Poprad, SN – Spišská Nová Ves, MI – Michalovce, VT - Vranov nad Topľou, HE – Humenné, LC – Lučenec, RS – Rimavská Sobota, DS - Dunajská Streda

ZA/MT- if there is no other core settlement area after the dash, it is concerning a localisation directed towards the state border, an area with no Slovak core settlement area of level 1 or 2.

Katowice - represents the centre and the entire border region of Silesian Voivodeship; Vienna, Budapest, Miskolc, Uzhgorod, Rzeszow, Krakow, Ostrava, Zlin, Brno have analogous meaning

TI - transport infrastructure

BA-ZA-KE northern west - east corridor, BA-ZV-LC-KE central west - east corridor, BA-DS-NZ-LC-KE Southern west - east corridor

Skalité/Svrčinovec-ZA-MT-ZV-Šahy western north - south corridor, Trstená-DK-RK-BB-ZV-Šahy central north - south corridor, Svidník-PO-KE-Milhost' eastern north - south corridor

VOND - the public passenger and non-motorised transport (suburban bus and railway passenger transport, mass urban transport, cycling)

#### Note

The project plan of SPRDI SR 2020 includes air transport infrastructure projects with questionable benefit concerning the reduction of greenhouse gas emissions. It is specifically concerning projects related to the upgrading and extension of runways and taxiways. These measures will probably allow the operation of bigger aircraft types, however, in terms of low-carbon economy it represents a rather counterproductive solution, as the energy consumption of bigger airplanes is high. Another project, which will have an effect on the production of greenhouse gas and noise emissions, is the construction of a terminal for the air cargo transport at the Košice airport, which will facilitate the growth of air cargo transport volume, but this will cause an increase in the production of greenhouse gas emissions, whereas the operation of cargo aircrafts, concerning their low transport performance (tonnes/km) is demanding in terms of the energy consumption.

Table 1 Specific production of greenhouse gas emissions in air and road freight transport

Transport mode	Specific production
Air transport	1,59643 kg CO <sub>2</sub> ekv./tonne-km
Road transport	0,15399 kg CO <sub>2</sub> ekv./tonne-km

source: 2011 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting; 2011

Table 9 Environmental assessment of territorial sectors. Infrastructure of the railway, air and intermodal transport

Railway lines in Bratislava	Territorial sector No.1: Bratislava	TEN-T: node of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BA	+2	1, 2, 16-22	
2	BA - Wien	+1.5	1	
	Overall evaluation	+3.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Electrification of the track Devínska Nová Ves - state border SR/Austria will have a significant impact on the public health concerning the reduction of emissions of pollutants and the reduction of noise pollution effect on the population of the relevant territory is expected as well.	+2	1	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as less significant. The project is mostly located in an urban area, there could be an interference with protected areas in case of the line Devínska Nová Ves - Marchegg, with identified CHA Devínske alúvium Moravy within the 1 000 meter corridor.	-1	1	Observe general measures for minimisation of impacts during the construction and operation

2	<p>Impacts on the Natura 2000 sites are considered as less significant.</p> <p>The existing railway line Devínska Nová Ves - Marchegg is located in the SKCHVU016 Záhorské Pomoravie, which stretches along the Morava River. There are SKUEV0314 Morava and the SKUEV0312 Devínske alúvium Moravy situated in the territory. During the electrification of the track Devínska Nová Ves – state border, there will be a construction of traction poles. The technical literature does not mention cases with an injury, or death of birds on railway contact lines in contrast to the electric lines with voltage of 22 kV and higher. It implies that the electrification of tracks does not belong to activities, which could negatively affect the favourable conservation status of bird species habitats of European importance representing the subject of protection.</p> <p>Detailed assessment of impacts on subjects of protection is presented in the Annex 4.</p>	-1	1, 16	Project charters and projects in the territorial sector with identified direct interference with Natura 2000 sites require assessment of activities on the favourable conservation status of Natura 2000 sites pursuant to the paragraph 28 of Act No. 543/2002 Coll.
3	<p>Impacts to the landscape and Territorial Systems of Ecological Stability are assessed less significant. There are NRBC Devínska kobyla and NRBC Bratislavské luhy situated in the territory of Bratislava.</p> <p>The railway line Devínska Nová Ves - Marchegg stretches along the NRBC rieka Morava. The double-tracking of the railway line will take place in the designated construction corridor without any impact on the surrounding environment. The connection of M. R. Štefánik airport to railway lines and the construction of a railway station Bratislava airport is not interfering with any important animal migration corridor or any TSES element. The construction of elevated road, compared to a tunnel, will have more significant impact on the landscape, but given the proximity of an elevated motorway and interchange, a significant change in the scenery is not expected.</p>	-1	1	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are quality soils of quality class 2 to 4 in the territorial sector, minimum impact on commercial forests.	-1	1, 18, 21	Minimisation of the land take
5	Building of tunnel parts in adverse geological conditions.	-1	21	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	<p>There are no protection zones of water supply sources in the territorial sector, the territory is outside the protected water management areas.</p> <p>The tunnel route will affect the groundwater hydrology.</p>	0 -1	21	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-6		

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Railway line 110	Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR	+1	3	
2	BA-Brno	+1	3	
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project Deployment of ERTMS in the corridor No. IV Kúty state border SR/Czech Republic will have no impact on the health of population of the concerned territory.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the protected sites are assessed as non-significant. There are several protected areas in the route corridor (1 000 m) (CHKO Záhorie, CHKO Malé Karpaty, NPR Abrod , CHA Marhecké rybníky, PR Bezodné, CHA Devínske alúvium Moravy, PR Štokeravská vápenka, CHA Horský park, CHA Lesné diely, Ramsar site Alúvium Rudavy, Ramsar site Alúvium Moravy), however the deployment of the ERTMS is not expected to imply any land claims or interference with existing lines.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant. There are several Natura 2000 sites in the route corridor (1 000 m) (SKUEV0117 Abrod, SKUEV0121 Marhecké rybníky, SKUEV0167 Bezodné, SKUEV0312 Devínske alúvium Moravy, SKUEV3013 Devínske jazero, SKUEV0502 Štokeravská vápenka, SKUEV0217 Ondriašov potok, SKUEV0218 Močiarka, SKUEV0388 Vydrice, SKCHVU016 Záhorské Pomoravie), however the deployment of the ERTMS is not expected to imply any land claims or interference with existing lines.	0	3	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.
3	Impact on the landscape and TSES is assessed as non-significant. Deployment of ERTMS does not imply any territorial claims, interference with an existing line, or change of the existing impact, therefore there will be no new impacts on TSES elements.	0		

4	The extent of land takes is unknown due to the fact that this is mainly concerning an upgrade of sections.	0		
5	Due to adjustments to the existing line, the structure of the rock environment is irrelevant.	0		
6	The territorial sector is not a part of any protected water management area, planned projects do not interfere with any protection zones of water supply sources.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-1		

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Railway line 120	Territorial sector No.3: Púchov - Žilina	TEN-T: section of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, PB/PU - ZA/MT	+2	4, 5	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Upgrading of the line Púchov - Žilina will have a slight impact on the public health due to the reduction of noise pollution in the relevant territory.	+1	4, 5	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The relevant railway line is located in the I. degree protection zone pursuant to the Act No. 543/2002 Coll. on nature and landscape protection. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the broader corridor.	0		
3	Impacts on the landscape and TSES are considered less significant. The important NRBk Váh can be affected by the construction performed mainly along its course. Through its own construction character (embankments) and traffic volume the track will create a barrier effect basically along the whole water course. Barriers will be created in the line of an important bird migratory route of the north-south of Váh river corridor during the implementation – bridges beneath the Nosice water dam create a barrier for landing and take-off of birds in the area of island, an important ornithological site and migration rest site for birds.  The reconstruction of bridges over water courses will partially improve migration possibilities for semi-aquatic animals through the creation of dry banks - berms. The route passes in a space between two bio-corridors – NRBk Váh and the ecotone of Strážovské vrchy; upgrading will allow the improvement of the connectivity of	-1	4, 5	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect

	habitats and migration possibilities in the Váh river valley.			
4	There are soils of medium and lesser quality in the territorial sector, interference with forests with commercial function, small share of forests with protective function, no impact.	0	4, 5	Minimise the land take
5	There are extensive slope deformations in the territorial sector, particularly in tunnel sections.	-1	4	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The route marginally interferes with two protected water-management areas - Strážovské vrchy and Beskydy - Javorníky.	-1	4	Within the preparation and implementation perform measures to protect the waters
	In selected sections, the route interferes with the II. degree protection zone of the water supply source.	-1	5	
7	In selected sections, the route interferes with the I. and II. degree protection zone of the natural healing water source of the Nimnice spa.	-1	4	Within the preparation and implementation perform measures to protect these waters
	Overall evaluation	-5		



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Railway lines in Žilina	Territorial sector No.4: Žilina	TEN-T: node of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	ZA/MT	+2	6	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project Node Žilina, Completion of marshalling yard in Žilina - Teplička and a follow-up railway infrastructure will not have an impact on the health of the population in concerned territory.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. Terminal section of the track, which is reconstructed in the original position interferes with the protection zone of the NP Malá Fatra, the interference is present from the crossing of the Varínka river to the end of the section. Considering the fact that in this section the upgrade will be performed on an existing body, significant impact on the protected area is not expected.	0		
2	Impacts on the Natura 2000 sites are assessed as less significant, the existing railway track could affect SKUEV0221 Varínka with identified direct contact. The river Varínka is crossed by the railway line in an original body through an existing bridge, whereby one of the pillars is situated in the middle of the protected water course, just before the discharge into the Žilina waterworks, possible impact during its reconstruction.  In the broader area (corridor of app. 1 000 m), there are CHVU013 Malá Fatra and SKUEV0665 Strečnianske meandre Váhu. Detailed assessment of impacts on subjects of protection is presented in the Annex 4.	-1	6	Due to the not significant nature of impacts, further assessment pursuant to the Article 6(3) and (4) is not required.
3	Impacts on the landscape and TSES are assessed as less significant. The planned structure gets in a contact with the NRBk Rieka Váh, RBk vodný tok Varínka a Struháreň and RBk vodný tok a niva Rajčianky. Bridges do not affect the passability	-1	6	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect. Bridging of stream bio-corridors should be managed in a way

	of bio-corridors, during the reconstruction, it is necessary to preserve it by technical measures.			that will secure technical and ethological passability for the animals migrating along the water courses (particularly the European otter - <i>Lutra lutra</i> ), moreover, that they will be used by animals as an underpass to a maximum possible extent.
4	There are medium and lesser quality soils in the territorial sector, there are no forests in the territorial sector.	0		
5	There are no areas with slope deformations in the territorial sector.	0		
6	The territorial sector is not a part of any protected water management area. In the eastern part of the territorial sector there is an internal and external II. degree protection zone of the water supply source.	-1	6	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-3		

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Railway line 180	Territorial sector No.5: Žilina - Košice	TEN-T: section of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, ZA/MT - KE/PO	+2	7, 8, 14	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Upgrading of the railway line will have a slight impact on the public health due to the expected reduction of noise pollution effect on population in the concerned territory.	+1	7, 8, 14	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	<p>Impacts on the nature protection interests are assessed as less significant. Existing corridor of the route is passing through a territory with extraordinary natural values, particularly in the region of Vysoké Tatry. It is impossible to avoid impacts on protected areas during the reconstruction. In the section Paludza - Liptovský Hrádok, part of the route directly interferes with the protection zone of the Národný park Nízke Tatry national park with II. degree of protection. In the section Poprad - Tatry - Lučivná, the railway line runs parallel to the protection zone (in a distance of approx. 50 m) the Tatranský národný park national park (TANAP). Considering the current usage of the territory, increased negative impact on protection zones, or national parks is not expected. In 1993, the TANAP has been included into the network of biospheric reservations by the decision of UNESCO within the programme MaB (Man and Biosphere). Its border follows the line of the TANAP protection zone.</p> <p>In the broader area (corridor of approx. 1 000 m) of the section Paludza - Liptovský Hrádok, there are Národný park Nízke Tatry national park– protection zone, PP Mašiansky balvan, where the route gets in a contact with protection zone of the PP, CHA Hrádocke arborétum, Tatranský národný park national park - protection zone, PR Baba, PR Bôrik. Impacts on these protected areas are not expected. In the section Poprad - Tatry - Spišská Nová Ves, the route does not impact any protected area, in the broader territory (approx. 1 000 m) following protected areas are located: NP</p>	-1	7,8,14,15	Observe general measures for minimisation of impacts during the construction and operation

	Slovenský raj national park, NPP Gánovské travertíny, PP Briežky, PR Primovské skaly. In the section Kysak - Košice, no protected areas were identified in the broader territory (corridor of approx. 1 000 m).			
2	<p>Impacts on the Natura 2000 sites are assessed as less significant. In the section of railway line with planned reconstruction, Liptovský Mikuláš - Košice, there is a great potential of an interference with Natura 2000 sites, as the original route in some sections is located in those sites. In some places are the borders of protected areas adjusted to the route of the railway line, in other parts, the railway is a part of them. The railway line crosses SKUEV0309 Poprad - river Poprad in Svit, where the reconstruction of the existing railway bridge will be implemented.</p> <p>In the section Poprad – Tatry - Spišská Nová Ves, the route does not directly interfere with any Natura 2000 site, several Natura 2000 sites that can be slightly impacted by the railway reconstruction are situated in the corridor of approx. 1 000 m. It is concerning SKCHVU053 Slovenský raj (in a short section the route is running just along the border), SKUEV0139 Gánovské slanská, SKUEV0708 Primovské skaly, SKUEV0782 Vydrnícka slatina and SKUEV0784 Mašianske sysľovisko.</p> <p>In the vicinity of the line in the section Kysak - Košice, there are SKCHVU036 Volovské vrchy and SKUEV0328 Stredné Pohornádie.</p> <p>Impacts on subjects of the protection of Natura 2000 sites are presumed as less significant. It will be necessary to verify the extent of the impact in detail and in case that it will be confirmed, it will require an assessment of the impact of activities on favourable conservation status of the territory pursuant to the paragraph 28 of Act No. 543/2002 Coll. Detailed assessment of impacts on subjects of protection is presented in the Annex 4.</p>	-1	7,8,14,15	The degree of the interference with Natura 2000 sites will have to be assessed in the next stage of the preparation of the construction through procedures according to the Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive.
3	<p>Impacts on the landscape and TSES are assessed as less significant. The route interferes with the territory, where it can affect the elements of TSES.</p> <p>In the territory, there are supraregional and regional bio-corridors that are fragmented by the existing railway. It is concerning NRBk Váh - water course – bridging, NRBk Vodný tok Belá - crossing just before the discharge to the Váh river, NRBk rieka Poprad, RBk Vodný tok Smrečianka - bridged once by the railway, RBk Vodný tok Hybica - approx. 0,5 km from the railway, PRBc Slovenský raj, NRBk Rieka Poprad, RBk Hornád, RBk Brusník s prítokmi, RBk Markušovský potok, NRBk Čierna hora, RBk Hornád.</p> <p>Negative impacts on water courses: the route crosses river Hornád three times, viaduct and stop Madaras will affect Brusník in length of 650 m, at one site it crosses Brusník, Hrabušický potok creek, a tributary of Hrabušický potok, Gánovský potok creek two times, right side tributaries of Gánovský potok four times and the river Poprad at one site. Construction of new bridges and viaducts will represent a more significant impact. Landscape structure will be more impacted by the interventions related to the construction of new track sections – cutting of non-forest vegetation,</p>	-1	7,8,14,15	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect. Bridging of stream bio-corridors should be managed in a way that will secure technical and ethological passability for the animals migrating along the water courses (particularly the European otter - Lutra lutra), moreover, that they will be used by animals as an underpass to a maximum possible extent. The fencing of the railway is necessary in the places of contact or proximity with forest complex with increased likelihood of migration, construction of ecoducts allowing migration over the railway in order to secure collision-free crossing of animals via the terrestrial bio-corridor. The construction of underpasses for migration routes of animals and fencing for their guiding will also prevent kills.

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	clearing of forest, adjustment and relocation of water courses. Construction yards and handling areas will present temporary negative impacts on the landscape structure. The upgrading will improve the passability of the area.			
4	There are soils of medium and lesser quality in the territorial sector, interference with forests with commercial function.  Lesser take of forests with protective and special function.	0  -1	7  14	Minimise the land take
5	There are extensive slope deformations developed in the territorial sector, particularly in tunnel sections and deep cuttings.	-1	7, 8, 14	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The route is peripherally interfering with the protected water management area (CHVO) - Nízke Tatry - East.  In selected sections, the route interferes with the II. and III. degree protection zone of the water supply source.	-1  -1	7  8, 14	Within the preparation and implementation perform measures to protect the waters
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-7		

Railway line 190	Territorial sector No.7:Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport axis of SR, KE/PO -	+1	9	
2	KE/PO - Uzhgorod	+1	9	
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project Čierna nad Tisou, upgrading of node, project documents + implementation, will have no impact on the health of population of the concerned territory.	0	0	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The area is located in the I. degree of protection pursuant to the Act No. 543/2002 Coll. on nature and landscape protection. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the broader corridor.	0		
3	Impact on the landscape and TSES is assessed as non-significant., project charters and structures will not interfere with important TSES structures.	0		
4	There are soils of medium and lesser quality in the territorial sector, projects are located outside forests.	0		
5	There are no slope deformations in the territorial sector, projects are planned in built-up areas.	0		
6	The territorial sector does not impact any protected water management area (CHVO) or protection zone of water supply source.	0		

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7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	0		



Railway line 130, 135	Territorial sector No.8: Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary		TEN-T: section of the original as well as of the new planned comprehensive network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Outside the major transport and development axis of SR, BA-NZ/KN	+1	10	
2	X	0		
	Overall evaluation	+1		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Deployment of ERTMS in the corridor No. IV BA – Nové Zámky – Štúrovo/Komárno (ETCS L2 + GSM R) will have no impact on the health of population of the concerned territory.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on interests of nature conservation are assessed as non-significant, even though in the route corridor (1 000 m), there are several protected areas (NPR Burdov, NPR Parížske močiare, PP Mužliansky potok, PR Palárikové lúky). The nature of activities does not imply any territorial claims or impacts outside the existing route.	0		
2	Impacts on Natura 2000 sites are assessed as non-significant, in the route corridor (1 000 m), there are several Natura 2000 sites (SKUEV0097 Palárikovské lúky, SKUEV0095 Panské lúky, SKUEV 0184 Burdov, SKUEV0393 Dunaj, SKCHVU020 Parížske močiare, SKCHVU005 Dolné Považie, SKCHVU023 Úľanská mokrad'). The nature of activities does not imply any territorial claims or impacts outside the existing route.	0	10	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.
3	Impacts on the landscape and TSES are assessed as non-significant. Existing route crosses several supraregional and regional bio-corridors, but the nature of activities does not imply any territorial claims or impacts outside the existing route.	0		
4	There are quality soils of quality class 1 to 4 in the territorial sector, minimum impact on commercial forests and forests with protective function.	-1	10	Minimisation of the land take
5	There are no areas with slope deformations in the territorial sector, locally, there are areas with wind and water erosion. Planned projects are to be implemented within	0		

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	existing line corridors.			
6	The territorial sector is partially interfering with the protected water management area CHVO - Žitný ostrov, the corridor of the line is in contact with II. degree protection zone of a water supply source.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-2		

Railway line 160	Territorial sector No.9: Košice - Zvolen		TEN-T: section of the original as well as of the new planned comprehensive network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, BB/ZV - KE/PO	+2		
2	X	0		
	Overall evaluation	+2		place 3 to 10
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Electrification of the track Haniska pri Košiciach – Moldava nad Bodvou – Fiľakovo - Zvolen will have a significant impact on the public health concerning the reduction of emissions of pollutants and the reduction of noise pollution effect on the population of the relevant territory is expected as well.	+2	11	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	<p>Impacts on the landscape and TSES are assessed as less significant. In the section Zvolen - Fiľakovo, there is no interference of concerned area with any protected area pursuant to the Act No. 543/2002 Coll. on nature and landscape protection as amended, areas with I. degree of protection. In the 1 000 m corridor there are PR Ružinské jelšiny, PP Krivánsky potok, PR Pstruša and PP Pyramída. During the implementation and operation, we are not expecting impacts on water regime of marsh and peat ecosystems, water regime of flows or riparian vegetation, we are not expecting impacts on hygrophilous meadow communities with concentrated occurrence of protected and critically endangered species of Slovak flora - Snake's Head Fritillary (<i>Fritillaria meleagris</i>).</p> <p>In the section Fiľakovo - Moldava nad Bodvou, the route gets in a partial contact with CHKO Cerová vrchovina and passes through the NP Slovenský kras national park and its protection zone. In the corridor of the railway, there are many small-area protected areas (CHA Martinovská nádrž, CHA Slaná, NPR Brzotínske skaly, NPR Pod Strážnym hrebeňom, NPP Hrušovská jaskyňa, NPP Krásnohorská jaskyňa, PP Jovické rašelinisko, NPR Hrušovská lesostep NPR Turniansky hradný vrch, PR Zemné hradisko). The optimisation of the route requires specific adjustments, according to the available</p>	-1	11, 23, 24,	Observe general measures for minimisation of impacts during the construction and operation

	documents, the contact with protected areas has not been ruled out yet. Significant impacts are not foreseen.			
2	<p>The route of the railway is partially crossing the SKCHVU021 Poiplie and SKCHVU022 Poľana, in a long section it is running in a contact with the border of SKCHVU003 Cerová vrchovina-Porimavie, which is crossed by the route in several section. It is crossing SKCHVU027 Slovenský kras, in a long section it is running along its border, heading to SKCHVU009 Košická kotlina, crossing it at its edge.</p> <p>In the route corridor of 1 000 meters, there are several SAC (SKUEV0398 Slaná, SKUEV0343 Plešivské stráne, SKUEV0346 Pod Strážnym hrebeňom, SKUEV0350 Brzotínske skaly, SKUEV0353 Plešivská planina, SKUEV0352 Hrušovská lesostep, SKUEV0356 Horný vrch, SKUEV0737 Palanta). Within the optimisation of the route and construction of the electric contact line, a contact with some Natura 2000 sites is likely to occur, especially within the reconstruction of bridges over SKUEV0398 Slaná. Detailed assessment of impacts on subjects of protection is presented in the Annex 4.</p>	-1	11, 23, 24,	<p>Electrification of tracks does not belong to activities, which could negatively affect the favourable conservation status of bird species habitats of European importance representing the subject of protection in the SPA. In the technical literature, which is quite comprehensively addressing the problem of injuries and kills of birds on contact line poles as well as on the electric wires, there is no described case of an injury or death of birds on railway contact lines in contrast to the electric lines with voltage of 22 kV and higher. This means that the implementation of planned activities does not imply any threat, or violation of the SPA subject of protection.</p> <p>Project charters and projects in the territorial sector with identified direct interference with Natura 2000 sites require assessment of activities on the favourable conservation status of Natura 2000 sites pursuant to the paragraph 28 of Act No. 543/2002 Coll.</p>
3	<p>The route impacts supraregional and regional elements of TSES, the most important include PBC Zádielska dolina - Havrania skala -Turniansky hradný vrch, NRBc Plešivská planina, NRBc Hrhovské rybníky - Dolný vrch, NRBc Perínske rybníky, NRBk stream rieka Slatina, NRBk stream Ipeľ, NRBk stream Slaná, NRBk stream Hornád NRBk terrestrial Sinec – Cerová vrchovina, NRBk terrestrial Drienčanský kras-Lenartovce, NRBk terrestrial Plešivská planina - Zádielská planina and the whole network of regional bio-centres and bio-corridors.</p> <p>The interference with bio-corridors in the concerned territory is already present and the implementation of the planned activity will not result in deterioration of bio-corridor functions of the area compared to the present state.</p> <p>The river Ipeľ represents an important bird migration corridor in the relevant territory. Waterlogged and flooded meadows and wetlands in its alluvium create unique resting sites and gathering places for birds during their migration. The planned activity itself and its operation does not form a significant barrier for migrating birds. In this case, it is only concerning a line barrier, which is not preventing the birds to fly over it and continue in the route set.</p>	-1	11, 23, 24,	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	<p>There are soils of medium and lesser quality in the territorial sector.</p> <p>Interference with forests with commercial function, small scale interference with forests with special and protective function.</p>	0 -1	11, 23, 24 23, 24	Minimise the land take
5	There are slope deformations developed in the territorial sector, selected projects are stabilised in existing line corridors, tunnel section are more risky.	-1	24	Within the preparation and construction perform measures to ensure the stability of the rock environment.

6	<p>The route is partially interfering with protected water management areas - CHVO Horné povodie Rimavice, Ipľa Slatiny, CHVO Slovenský kras - Plešivská planina and CHVO Slovenský kras - Planina Horného vrchu.</p> <p>In selected sections, the route interferes with the II. and III. degree protection zone of several water supply sources.</p>	-1	23, 24	Within the preparation and construction perform measures to protect the waters
7	<p>In selected sections, the route interferes with the II. degree protection zone of natural healing water sources of table waters Tornaľa and with the II. degree protection zone of natural healing water sources of the Číž spa, considering the stabilisation of the route corridor, an impact is not expected.</p>	-1	24	Within the preparation and construction perform measures to protect these waters.
	Overall evaluation	-7		

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Railway line 191	Territorial sector No.10: Michal'any - Bánovce n/O - Humenné - Medzilaborce		TEN-T: section not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Outside the major transport and development axis of SR, MI/VT/HU -	0		
2	X	0		
	Overall evaluation	0		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Electrification of the track Bánovce nad Ondavou – Humenné will have a significant impact on the public health concerning the reduction of emissions of pollutants and the reduction of noise pollution effect on the population of the relevant territory is expected as well.	+2	12	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The electrified route is located in area with the I. degree of protection pursuant to the Act No. 543/2002 Coll. on nature and landscape protection, as amended. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant. In the corridor of approx. 1 000 m, there are SKUEV0250 Krivoštianka, SKUEV0231 Brekovský Hradný vrch and SKCHVU035 Vihorlatské vrchy, however, the existing route is not in a direct contact with these areas.	0		The electrification does not imply claims on the land take, therefore no impacts on SAC are expected. Electrification of tracks does not belong to activities, which could significantly negatively affect the favourable conservation status of bird species habitats of European importance representing the subject of protection in the SPA. Within the electrification of the track, a construction of the contact line will take place, no injuries or kills of birds have been reported on these contact lines in contrast to electric lines with voltage of 22kV and higher.
3	Impacts on the landscape and TSES are assessed as non-significant. The interference with bio-corridors in the concerned territory is already present and the implementation of the planned activity will not result in deterioration of bio-corridor	0		

	functions of the area compared to the present state.			
4	There are soils of medium and lesser quality in the territorial sector, interference with forests with commercial function, small share of forests with special function.	0		
5	There are slope deformations developed in the territorial sector, selected projects are stabilised in existing line corridors.	0		
6	The route does not impact any protected water management area. In selected sections, the route interferes with the II. degree protection zone of water supply sources, considering the stabilisation of the route corridor, an impact is not expected.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	0		



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Railway line 127	Territorial sector No.11: Žilina – Čadca – state border SR/Czech Republic		TEN-T: section of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, ZA/MT-	+1.5	13	
2	ZA/MT - Ostrava	+2	13	
	Overall evaluation	+3.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Upgrading of the section state border Czech Republic/SR - Čadca - Krásno nad Kysucou (outside), will have a slightly positive impact on the health of population of the concerned territory.	+1	13	Construction of noise barriers in settled territory.
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The relevant railway line is located in the I. degree protection zone pursuant to the Act No. 543/2002 Coll. on nature and landscape protection as amended. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the broader corridor.	0		
3	Impacts on the landscape and TSES are assessed as less significant. In the territory, there are N. I Supraregional terrestrial bio-corridor, N. II Supraregional stream bio-corridor, regional bio-corridors III.R, IV.R, XI.R, XIV.R, XV.R. The route of planned upgraded railway line passes through a valuable territory in terms of the nature conservation, with migration corridor of large mammals, including protected large carnivores as Eurasian lynx, brown bear and grey wolf. These migrate from Poland and Slovakia through the Sliezské Beskydy, Kysucké Beskydy and Jablunkovské medzihorie to Moravsko-sliezske Beskydy and further into the territory of the Czech Republic.	-1	13	The barrier effect can be partially eliminated through the implementation of technical measures to preserve the passability of the bio-corridor between SR and the Czech Republic - an overpass for animals (ecoducts). A guiding fence is required before and after the overpass.  Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect.
4	There are soils of medium and lesser quality in the territorial sector, interference with	-1	13	Minimise the land take

	forests with commercial function, small share of forests with protective function without significant impact.			
5	There are extensive slope deformations in the territorial sector, particularly in cutting sections. Route running in a cutting could cause a slope instability.	-1	13	Within the preparation and implementation perform measures to ensure the stability of the rock environment
6	The entire territorial sector interferes with the protected water management area (CHVO) - Beskydy - Javorníky. The route does not interfere with any protection zone of water supply source.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-3		

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Railway line 131	Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno		TEN-T: section not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Outside the major transport and development axis of SR, BA-NZ/KN	+1		
2	x	0		
	Overall evaluation	+1		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project Bratislava Nové Mesto – Dunajská Streda – Komárno, doubling and electrification of the track will have a significant impact on the public health concerning the reduction of emissions of pollutants and the reduction of noise pollution effect on the population of the relevant territory.	+2	27	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. In the corridor of 1 000 m, there is CHA Strážsky park, direct contact is not expected.	0		
2	Impact on Natura 2000 sites is assessed as significantly negative. In the route corridor, there are Special Areas of Conservation SKUEV0017 Pri Orechovom rade, SKUEV0010 Komárňanské slanisko, SKUEV0099 Pavelské slanisko and SKCHVU012 Lehnice in a contact. Double-tracking implies a land take, what could affect some of the Natura 2000 sites. Habitats, which are the reason of the declaration of these sites are mostly the priority ones.  Detailed assessment of impacts on subjects of protection is presented in the Annex 4.	-1	27	Project charters and projects in the territorial sector with identified direct interference with Natura 2000 sites require assessment of activities on the favourable conservation status of Natura 2000 sites pursuant to the paragraph 28 of Act No. 543/2002 Coll.
3	Impacts on the landscape and TSES are assessed as less significant, the barrier effect of a double-track line will increase. The barrier effect can be partially eliminated through the implementation of technical measures to preserve the passability of bio-corridors.	-1	27	Ensure consistent implementation of measures to improve the passability of the area and to eliminate the barrier effect
4	There are best quality soils of quality class 1 to 4 in the territorial sector, minimum impact on forests with protective function and on commercial forests.	-1	27	Minimise the land take

5	There are no slope deformations in the territorial sector.	0		
6	The territorial sector interferes with the protected water management area - Žitný ostrov, marginal interference with the II. degree protection zone of a water supply source.	-1	27	Within the preparation and implementation perform measures to protect the waters
7	Marginal inference with the II. degree protection zone of a natural mineral sources of table water Čílistov.	0		
	Overall evaluation	-4		

## Environmental Report

Railway line 131	Territorial sector No.14: Leopoldov - Nitra - Šurany		TEN-T: section not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Outside the major transport and development axis of SR, NR -	+1	25	
2	X	0		
	Overall evaluation	+1		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Electrification of the track will have a significant impact on the public health concerning the reduction of emissions of pollutants and the reduction of noise pollution effect on the population of the relevant territory is expected as well.	+2	25	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on protected areas are assesses as non-significant, there are no protected areas in the corridor of the route.	0		
2	Impact on Natura 2000 sites is assessed as non-significant. The route is not crossing or interfering with any Natura 2000 site.	0		
3	The route is crossing the supraregional bio-corridor Váh and interferes with the supraregional bio-corridor Nitra. Concerning the nature of the activity (electrification of track does not imply change of the route), the impact appears to be non-significant.	0		
4	There are best quality soils of quality class 1 to 4 in the territorial sector, minimum impact on forests with protective function and on commercial forests.	-1	25	Minimise the land take
5	There are no slope deformations in the territorial sector.	0		
6	Marginal interference with the II. degree protection zone of water supply sources.	0	25	
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-1		

Intermodal Transport Terminal in Košice	Territorial sector No.6: Košice	TEN-T: node of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	KE/PO	+2	25	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project Intermodal Transport Terminal Košice, stage I of the construction will not affect the health of population in the concerned territory, as well as the air transport projects in the territorial sector.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The area, where the project will be implemented, is located in the I. degree of protection pursuant to the Act No. 543/2002 Coll. on nature and landscape protection. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the territorial sector.	0		
3	Impact on the landscape and TSES is assessed as non-significant., project charters and structures will not interfere with important TSES structures.	0		
4	There are soils of medium and lesser quality in the territorial sector, projects are located outside forests.	0		
5	There are no slope deformations in the territorial sector, projects are planned in built-up areas.	0		
6	The territorial sector does not impact any protected water management area (CHVO) or protection zone of water supply source.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	0		

## Environmental Report

Intermodal Transport Terminal Leopoldov	Territorial sector No.12: Leopoldov	TEN-T: node of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, TT/NR	+1.5	26	
2	X	0		
	Overall evaluation	+1.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The project of the Intermodal Transport Terminal, stage I of construction will have no impact on the health of population of the concerned territory.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Impacts on the nature protection interests are assessed as non-significant. The area of the terminal is located in the I. degree of protection pursuant to the Act No. 543/2002 Coll. on nature and landscape protection. No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the broader area of the planned terminal.	0		
3	Impact on the landscape and TSES is assessed as non-significant., project charter will not interfere with important TSES structures.	0		
4	There are mostly medium quality soils in the territorial sector, local occurrence of quality class 2 soils, minimum impact on forests with protective function.	-1	26	Minimise the land take
5	There are no slope deformations in the territorial sector.	0		
6	The territorial sector does not impact any protected water management area (CHVO) or protection zone of water supply source.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-1		



Intermodal Transport Terminal Bratislava	Territorial sector No. 1 Bratislava		TEN-T: node of the original network as well as of the new planned core network	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BA	+2	28	
2	BA - Wien	+1.5	28	
	Overall evaluation	+3.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The Intermodal Transport Terminal is located on the bank of the Danube river in a heavily urbanised area.	0		
2	The construction of the intermodal transport terminal is located in a sufficient distance from the Natura 2000 sites. The closest SKCHVU007 Dunajské luhy is 500 m from the terminal as the crow flies from the middle of the water course on the other bank of Danube.	0		
3	The Intermodal Transport Terminal is located on the bank of the bio-corridor of provincial importance Danube in a heavily urbanised area, but it does not impact its functionality.	0		
4	No impact	0		
5	No impact	0		
6	No impact	0		
7	No impact	0		
	Overall evaluation	0		

## Environmental Report

Intermodal Transport Terminal in Žilina	Territorial sector No.4: Žilina	TEN-T: node of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	ZA/MT	+2	29	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The Intermodal Transport Terminal does not interfere with any protected areas.	0		
2	The Intermodal Transport Terminal does not interfere with any Natura 2000 sites.	0		
3	The Intermodal Transport Terminal does not interfere with any TSES.	0		
4	No impact	0		
5	No impact	0		
6	No impact	0		
7	No impact	0		
	Overall evaluation	0		

M. R. Štefánik Airport Bratislava	Territorial sector No.1: Bratislava	TEN-T: airport of the original network as well as of the new planned core network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BA	+2	1	
2	BA - Wien	+1.5	1	
	Overall evaluation	+3.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Improved possibility for the utilisation of the maximum take-off weight could result in an increased fuel consumption and excessive production of greenhouse gas emissions and noise.	-1	1	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	In the vicinity of the airport, there are no Natura 2000 sites that could be affected with the extension of the RWY 13/31.	0		
3	Upgrading of the airport does not interfere with any TSES elements.	0		
4	There are quality soils of quality class 1 to 4 in the territorial sector, there are no forests in the concerned area.	-1	1	
5	Considering the nature of structures, the impact on the rock environment is minimum.	0		
6	There are no protection zones of water supply sources in the territorial sector, the territory is outside the protected water management areas.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	-1		

## Environmental Report

Poprad - Tatry Airport	Territorial sector No.21: Poprad-Vysoké Tatry	TEN-T: airport of the original as well as of the new planned comprehensive network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Part of the major transport and development axis of SR, PP/SN+Vysoké Tatry	+2	2	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Improved possibility for the utilisation of the maximum take-off weight could result in an increased fuel consumption and excessive production of greenhouse gas emissions and noise.	-1	2	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Upgrading of RWY a TWY at Poprad - Tatry airport will not affect any nature conservation interests.	0		
2	Upgrading of RWY a TWY at Poprad - Tatry airport will not affect any Natura 2000 sites.	0		
3	Upgrading of the airport does not interfere with any TSES elements.	0		
4	There are soils of lesser quality in the territorial sector, in the vicinity, there are forests with commercial function and forests with protective function with no impact.	0		Minimisation of the land take
5	Considering the nature of structures, the impact on the rock environment is minimum.	0		
6	There are no protection zones of water supply sources in the territorial sector, the territory is outside the protected water management areas.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	0		

Košice Airport	Territorial sector No.6: Košice	TEN-T: airport of the original as well as of the new planned comprehensive network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	KE/PO	+2	3, 4	
2	X	0		
	Overall evaluation	+2		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Projects aimed at the development of the air freight transport will stimulate the air transport in the region, what could imply an increased fuel consumption and excessive production of greenhouse gas emissions and noise.	-1	3, 4	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No protected areas were identified in the broader territory.	0		
2	Impacts on the Natura 2000 sites are assessed as non-significant, Natura 2000 sites are not present in the territorial sector.	0		
3	Impact on the landscape and TSES is assessed as non-significant., project charters and structures will not interfere with important TSES structures.	0		
4	There are medium quality soils in the territorial sector, there are no forests in the vicinity.	0		Minimisation of the land take
5	Considering the nature of structures, the impact on the rock environment is minimum.	0		
6	There are no protection zones of water supply sources in the territorial sector, the territory is outside the protected water management areas.	0		
7	Sources of natural healing and mineral waters and their protection zones are not present in the territorial sector.	0		
	Overall evaluation	0		

## Environmental Report

Danube	Territorial sector No.1: Bratislava	TEN-T: inland waterway of the original as well as of the new planned comprehensive network		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BA	+2	1	
2	BA - Wien	+1.5	1	
	Overall evaluation	+3.5		
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	Implementation of technical measures to remove barriers and resolving of navigability of the Danube river in km 1880,260 - 1862,000 has no impact on the public health.	0		
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The specific technical solution that would allow to assess the impact on the nature protection is unknown.	?		
2	The specific technical solution that would allow to assess the impact on the Natura 2000 sites is unknown.	?		
3	The specific technical solution that would allow to assess the impact on the Danube bio-corridor is unknown, impacts are however not expected.	0		
4	No impact, the project is bound to the water course.	0		
5	No impact	0		
6	The project is bound to the water course, an impact on the II. degree protection zone is not expected.	0		
7	No impact	0		
	Overall evaluation	0		

Public passenger and non-motorised transport (VOND) in Bratislava	Territorial sector No.1: Bratislava	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation compensation measures and
1	BA	+2	VOND Bratislava	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation compensation measures and
1	The implementation of Integrated Transport Systems, integration of VOND in the Western functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Bratislava	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation compensation measures and
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline



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VOND Trnava	Territorial sector No.15: Trnava	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BA/TT	+2	VOND Trnava	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Western functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Trnava	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

VOND Košice	Territorial sector No.6: Košice	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	KE/PO	+2	VOND Košice	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Eastern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Košice	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

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VOND Prešov	Territorial sector No.16: Prešov	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	KE/PO	+2	VOND Prešov	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Eastern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Prešov	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

VOND Poprad-Vysoké Tatry	Territorial sector No.21: Poprad-Vysoké Tatry		TEN-T: the system is not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	PP/SN+Vysoké Tatry	+1	VOND Poprad-Vysoké Tatry	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Eastern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Poprad-Vysoké Tatry	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

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VOND Banská Bystrica	Territorial sector No.17: Banská Bystrica		TEN-T: the system is not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BB/ZV	+2	VOND Banská Bystrica	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Central - Southern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Banská Bystrica	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

VOND Zvolen	Territorial sector No.18: Zvolen	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	BB/ZV	+2	VOND Zvolen	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Central - Southern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Zvolen	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

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VOND Žilina	Territorial sector No.4: Žilina	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	ZA/MT	+2	VOND Žilina	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Central - northern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Žilina	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline



VOND Trenčín	Territorial sector No.19: Trenčín	TEN-T: the system is not included		
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	TN	+2	VOND Trenčín	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Central - northern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Trenčín	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

## Environmental Report

VOND Martin	Territorial sector No.20: Martin		TEN-T: the system is not included	
1/ Strategic transport and settlement aspects				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	ZA/MT	+2	VOND Martin	
2/ Public health				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	The implementation of Integrated Transport Systems, integration of VOND in the Central - northern functional region has a slight impact on the public health due to the increased attractiveness of VOND and possible shift of traffic volume from the individual car transport.	+1	VOND Martin	
3/ Strategic aspects of nature and landscape conservation: Natura 2000, National System of Protected Areas of SR, Territorial system of ecological stability, Agricultural soil fund and forests, rock environment, sanitary protective zones, protected water management areas, healing and mineral springs				
Number	Evaluation of the criterion	Points	Concerned projects No.	Mitigation and compensation measures
1	No impact	0		
2	No impact	0		
3	No impact	0		
4	No impact, project is bound to the existing transport infrastructure	0		
5	No impact, project is bound to the existing transport infrastructure	0		
6	No impact, project is bound to the existing transport infrastructure	0		
7	No impact, project is bound to the existing transport infrastructure	0		
	Overall evaluation	0		

VOND\* projects - measures No. OP 13 and OP 15 have an organisational programme character, the precondition of their practical implementation is the implementation of projects, which are included in measures for the construction of VOND infrastructure in the project pipeline

Table 10 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Upgrading of TEN-T network railway lines (spec.: TEN-T core network)

Number of the territorial sector	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
1	Bratislava, Devínska Nová Ves - state border SR/Austria	3.50	2.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-0.50
3	Púchov - Žilina	2.00	1.00	0.00	-1.00	-2.00	-1.00	0.00	0.00	-1.00	-2.00
5	Žilina-Košice	2.00	1.00	-1.00	-1.00	-2.00	0.00	-1.00	-1.00	-1.00	-4.00
11	Žilina – Čadca – state border SR/Czech Republic	3.50	1.00	-1.00	-1.00	0.00	0.00	0.00	0.00	-1.00	1.50
Measure (sectors total)		11.00	5.00	-3.00	-4.00	-5.00	-1.00	-2.00	-2.00	-4.00	-5.00

Table 11 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Upgrading of TEN-T network railway lines (spec.: TEN-T comprehensive network)

Number of the territorial sector	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
9	Zvolen-Košice	2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00
Measure (sectors total)		2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00

## Environmental Report

Table 12 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Upgrading of TEN-T network railway lines (spec.: railway nodes)

Territorial sector		Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	3.50	2.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	0.00	2.50
4	Žilina	2.00	0.00	0.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
7	Košice – Michalany - state border SR/Ukraine (Čierna nad Tisou)	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		7.50	2.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	3.50

Table 13 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Upgrading of TEN-T network railway lines

Measure	Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
TEN-T core network	11.00	5.00	-3.00	-4.00	-5.00	-1.00	-2.00	-2.00	-4.00	-5.00
TEN-T comprehensive network	2.00	2.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-3.00
Railway nodes	7.50	2.00	-1.00	-1.00	-2.00	0.00	0.00	-1.00	-1.00	3.50
Measure total	20.50	9.00	-5.00	-6.00	-8.00	-2.00	-3.00	-4.00	-6.00	-4.50

Table 14 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Electrification of important railway lines

Number of the territorial sector	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
13	Bratislava Nové Mesto - Dunajská Streda - Komárno	1.00	2.00	-1.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00
10	Michalany – Humenné - Medzilaborce	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
14	Leopoldov – Nitra - Šurany	1.00	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		2.00	6.00	-2.00	0.00	-1.00	0.00	0.00	-1.00	-1.00	3.00

Table 15 Evaluation of compliance of infrastructure measures of the railway transport with environmental objectives of the Environmental Report, measure: Technological ensuring of interoperability

Number of the territorial sector	Localisation of territorial sector	Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
2	Bratislava – Kúty – state border SR/Czech Republic	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
8	Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	1.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Measure (sectors total)		3.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00

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Table 16 Evaluation of compliance of infrastructure measures of the intermodal transport with environmental objectives of the Environmental Report, measure: Intermodal Transport Terminals

Territorial sector		Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
6	Košice	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
12	Leopoldov	1.50	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
1	Bratislava	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
4	Žilina	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Measure (sectors total)		9.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00

Table 17 Evaluation of compliance of infrastructure measures of the air transport with environmental objectives of the Environmental Report, measure: Upgrading, construction and maintenance of TEN-T network airports infrastructure

Territorial sector		Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	3.50	-1.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
21	Poprad-Vysoké Tatry	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
6	Košice	2.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Measure (sectors total)		7.50	-3.00	-1.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

Table 18 Evaluation of compliance of infrastructure measures of the inland waterway transport with environmental objectives of the Environmental Report, measure: Technical measures to ensure required parameters of the fairway of the Danube waterway

Territorial sector		Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
	Bratislava – state border SR/Austria, (Danube, r. km 1880,260 - 1862,000)	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
Measure (sectors total)		3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50

Table 19 Evaluation of compliance if infrastructure measures of the public passenger transport with environmental objectives of the Environmental Report, measure: Implementation of integrated transport systems, integration of public passenger transport in the Western, Eastern, Central - Southern and Central - Northern functional region

Territorial sector		Transport - settlement	Health	Soil	Rock env.	Water	Natural healing waters	Nature protection - National System of Protected Areas	Natura 2000	TSES	Total
Number	Localisation										
1	Bratislava	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
15	Trnava	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
6	Košice	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
16	Prešov	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
21	Poprad-Vysoké Tatry	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
17	Banská Bystrica	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
18	Zvolen	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
4	Žilina	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
19	Trenčín	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
20	Martin	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
Measure (sectors total)		19.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.00



## **ANNEX 3**

### **Assessment of cumulative impacts of SPRDI SR 2020 and SRVOND SR 2020 measures**



### Region: Bratislava, description of cumulative assessment considerations

The area of interest is consistent with the transport region defined in the binding part of KURS 2011. It is basically concerning the territory of the Bratislava self-governing region. Intensive agglomeration relations, however, go beyond the territory of the region itself to the area of the transport region of the Southwestern Slovakia (Trnava and Nitra self-governing regions). Bratislava-Trnava core settlement area, together with Nitra core settlement area, is classified as a polycentric system of international importance, while its cross-border bonds with Vienna and Gyor are moving the importance of this whole system to international level and higher. Besides the advanced sectors of industry and services, the Bratislava - Trnava - Nitra settlement structure is characteristic with high development potential of quaternary (knowledge economy, scientific background, innovation) activities. Significant specific characteristics of the capital city Bratislava implicate the separation of the Bratislava region as a self-monitoring and evaluating transport region.

Assessed transport systems of Bratislava and Southwestern Slovakia are closely interconnected. Its basic spatial orientation is given by long-term settlement relations of Bratislava with settlements in the Southwestern Slovakia. More than 100 thousand people commute daily to / from Bratislava. Major development-settlement axes and road/railway routes in Slovakia are radially arranged in regard to Bratislava. Settlement deconcentration trend is causing the take of new premises in the gravity area of the city, particularly along the radial roads. Currently, there is a significant pressure on the take of new area for urbanisation, particularly in the corridor Bratislava - Trnava. The improvement of the D1 motorway efficiency through its extension to 6-lane layout, accompanied by an implementation of the new parallel section of the expressway R1 - located about 5-10 km from D1 motorway, will bring strong urbanisation pressure on the area between the D1 motorway and the new section of the R1 expressway Most pri Bratislave - Sereď. However, in the near future, the settlement deconcentration trend could also bring requests for the improvement of the transport infrastructure interconnecting new settlements in the circular arrangement in regard to Bratislava.

Important measures of SPRDI SR 2020 are concerning the area of the Bratislava region. Within the road transport, it is concerning the infrastructure measure "Road network in the Bratislava agglomeration", which includes projects (projects classification colours are mentioned) of the construction of the motorway D4 Bratislava Jarovce – Ivanka pri Dunaji sever – Rača – Stupava juh – state border SR/Austria, construction of expressway R7 in sections Bratislava Prievoz - Bratislava Ketelec and Bratislava Ketelec - Dunajská Lužná. The construction of motorway D1 in the section Bratislava - Trnava, interchange Triblavina, Bratislava - Senec, extension to 6 lanes and in section Senec - Blatné, interchange Blatné, Blatné - Trnava, extension to 6 lanes also blend together with the measure. The preparation of the construction of the expressway R1 Most pri Bratislave – Vlčkovce is currently in the process of the selection of the route (variant).

In the railway transport, it is concerning infrastructure measures - Upgrading of TEN-T network, Technological ensuring of interoperability, Electrification of important lines.

The only activity of the measure Upgrading of TEN-T network is an extensive project of the Upgrading of railway node Bratislava, which includes the implementation of six projects: IDS Bratislava, Upgrading of line in section Predmestie - Rača, Railway connection of M. R. Štefánik Airport - reconstruction of a railway bridge near Nové Mesto, double-tracking of the line Bratislava hl.stanica - Bratislava Nové Mesto, Construction of transfer node Bratislava Vinohrady – Bratislava Predmestie, connection of M. R. Štefánik Airport - implementation.

The measure Technological ensuring of interoperability will include the Deployment of ERTMS in the Corridor IV in section Kúty state border SR/Czech Republic - node Bratislava (ETCS L2 + GSM R) on the railway line No. 110 and in the section Bratislava - Nové Zámky - Štúrovo / Komárno (ETCS L2 + GSM R) on railway lines No. 130 and 135. The Creating interoperability conditions in node Bratislava will be a separate project.

The electrification of the line No. 100 in the section Devínska Nová Ves – state border SR/Austria, will be implemented within the measure Electrification of important lines. Concerning lines not included in the TEN-T network, the electrification and double-tracking of the line No. 131 Bratislava Nové Mesto - Dunajská Streda – Komárno is under preparation.

In the field of intermodal transport, it is concerning infrastructure measures - Intermodal Transport Terminals, which include the implementation of the Intermodal Transport Terminal Bratislava, stage I.

Within the air transport, it is concerning the Upgrading, construction and maintenance of airport infrastructure within the TEN-T, which includes the upgrading and extension of RWY 13/31 at the M. R. Štefánik Airport in Bratislava.

In the area of the inland waterway transport it is concerning measures - Implementation of technical measures to remove barriers and resolving of navigability of the Danube river (r. km 1 880,260 - 1 862,000).

In regard to Bratislava, the measures are designed in a way to achieve synergy within the operation of the mentioned transport infrastructure. It is a plan to strengthen mutual effectiveness of the transport service in the city and its catchment area.

Organisational, operational and infrastructural measures for the region are under preparation within the SRVOND SR 2020, their known - green marked - activities are listed below:

- Upgrading of maintenance basis in Bratislava
- Renewal of tram fleet in Bratislava
- Renewal of trolleybus fleet in Bratislava
- NS MHD (core mass urban transport system) stage I Hlavná stanica - Janíkov dvor, operational section Bosákova ulica - Janíkov dvor, 2<sup>nd</sup> part Bosákova - Janíkov dvor
- Upgrading of tramway lines - Karloveská, Vajnorská and Račianska radial connection
- ŽSR, Terminals of integrated passenger transport (TIOP) in Bratislava, section Bratislava hlavná stanica - Podunajské Biskupice (implementation)
- ŽSR, Terminals of integrated passenger transport (TIOP) v Bratislava, section Bratislava hlavná stanica - Devínska Nová Ves (implementation)
- Upgrading of traffic dispatching in Bratislava
- NS MHD stage I Hlavná stanica - Janíkov dvor, operational section Hlavná stanica - Šafárikovo námestie
- Cycling route Eurovelo 13, Devínska cesta (Karlova Ves – Devín)
- ZSSK, Project concerning the building of units for technical and sanitary maintenance, Bratislava

## Environmental Report

Region: Bratislava, assessment of cumulative impacts			
Environmental objectives	Score	Cumulative impacts	Recommendations
Transport settlement	- +2	<p>The implementation of the transport infrastructure projects will have a positive impact on the public through the improvement of transport services in mass urban and railway transport. Implemented Integrated transport system offers an assumption of a positive, long-term effect with cumulative impact on the internal, originating and terminating traffic. If all relevant relations between the functioning of regional railway passenger transport and mass urban transport of passengers in the territory of the capital city will be respected, cumulative benefits of railway and mass urban transport projects will have a positive impact on the environment. Projects inhere a significant ambition to strengthen the functioning of mass passenger transport in the transport organism of the capital city with a positive impact on the modal split in the passenger transport. Road transport infrastructure measures have the potential to improve the traffic situation on major radial roads, which are in Bratislava used by the originating and terminating traffic from adjacent regions.</p> <p>Measures of air and inland waterway transport have the potential to positively affect the accessibility, not only in the context of Bratislava, but in the Central European context at least. It is concerning significant primary, positive and long-term impacts in the area of freight transport (establishment of new intermodal transport terminal, modernisation of the airport and port, railway lines, construction of motorway and expressway). Bratislava has thus an opportunity to become a quality transforming transport node.</p>	In view of the extremely adverse traffic situation in the capital city Bratislava, which is manifested by everyday congestions during the rush hours, we recommend to strengthen the function of the public passenger and non-motorised transport (VOND) by increased allocations.
Public health	+2	Mentioned measures for the Bratislava region will have a very significant impact on public health, as there will be a gradual shift of transport performance towards more environmentally friendly modes, what will result in the improvement of the environment, which directly affects the health of population. Another aspect is the reduction of the share of individual car transport in the mobility, what has a clearly demonstrable impact on the reduction of road accidents and related injuries and fatalities. Systematic support of the public passenger transport can therefore have a very significant impact on the health of the population.	None
Air and climate	+2	Like in the previous paragraph, systematic support of the public passenger transport and non-motorised transport from the side of Bratislava will have a clear impact on the quality of the environment, as there is an assumption of a decline in the performance of the individual car transport. Decline in the performance of the individual car transport means less production of greenhouse gas emissions.	None
Soil and rock environment	-1	<p>In the region, there will be a take of the best quality agriculture soil of class 1 to 4. Due to the lower proportion of forest land, the land take is primarily concentrating on the areas of commercial forests and to a lesser extent on forests with protective function. In terms of geological bedrock, in lowland areas there are risk areas with route running in cuttings, which could lead to the disruption of covering layers.</p> <p>In mountainous parts of the territorial sector, there are sections with slope deformations.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	Minimise the land take, within the preparation and implementation perform measures to ensure the stability of the rock environment.
Water	-1	<p>The southern part of the region is a part of the protected water management area Žitný ostrov, disturbance of groundwater regime in cuttings, or excavated tunnels, routes passing through II. degree protection zone of water supply sources.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	Within the preparation and implementation perform measures to protect the waters
Nature	-1	Almost all of the natural fragments of the landscape in the highly urbanised region are protected or	Minimise interference with protected areas and implement

conservation		suggested for the protection. Impacts are assessed as significant, particularly within the construction of new sections of motorway and expressways. It is not possible to completely avoid negative impacts, there can be an expected occurrence of direct take of parts of protected areas, impact on the migration, increased stress factors (noise and dazzling by spotlights), air pollution in protected areas. Measures in the railway, inland waterway and intermodal transport have less significant impact, represented mostly by indirect impacts.	measures pursuant to the recommendations of the EIA process.
Natura 2000	-1	Measures of SPRDI 2020 in the region are affecting several Special Areas of Conservation (SAC) and Special Protection Areas (SPA). Indirect effects on the subjects of protection are expected, as well as the direct territorial interventions that may affect the favourable conservation status of protected habitats and species. The most significant investment, which is expected to cause the most of adverse impacts on Natura 2000 sites, is the construction of the D4 motorway. (SPA Dunajské luhy, SPA Záhorské Pomoravie, SAC Biskupické luhy, SAC Homolské Karpaty, SAC Devínske alúvium Moravy, SAC Morava). Measures in the railway, inland waterway and intermodal transport have less significant impact.	Consistently implement measures to reduce impacts resulting from the assessment of individual projects pursuant to the Article 6(3) and (4) of the Habitats Directive.
Landscape	-1	Planned measures, particularly project of construction of the road infrastructure have impact on TSES elements. In an urbanised and densely populated country, there are important regional and supraregional bio-centres and bio-corridors that are important to preserve as refugia for animals and migration corridors in order to ensure the passability of the area and its ecological stability. Within new constructions and upgrading in the road and railway transport it is possible to implement measures to improve the passability of the area and to preserve the function of bio-corridors, what will partially mitigate barrier effects of the linear infrastructure.	Observe and implement measures to preserve the passability of the land and to improve the connectivity of habitats.
Cultural heritage	0	Adverse cumulative impacts of projects on the cultural heritage elements are not expected, shift of road traffic from settlements and concurrent shift of performance from road transport to the railway can contribute to the reduction of risks to the cultural monuments caused by vibrations and emissions.	None
Material resources	+1	The decline in performance of individual car transport will have a positive impact on the overall reduction in fuel consumption and saving of natural resources. Cumulative impact on material resources is not expected.	None

#### Region: Southwestern Slovakia, description of cumulative assessment considerations

The area of interest is consistent with the transport region defined in the binding part of KURS 2011. It is basically concerning the area of Trnava and Nitra self-governing regions with transport-gravity centre in the space between Trnava and Nitra. The cities of Trnava and Nitra are also core settlement areas of national importance. However, intensive agglomeration bonds of Bratislava are creating strong regional interconnection between the capital city and the area of the Bratislava self-governing region. Major development-settlement and transport-gravity axes coming from Bratislava are directionally divided in Trnava and head north to the Považie region (Northwestern Slovakia) and east to the Pohronie region (Central Slovakia). Radially oriented superior transport system with centre in Bratislava is creating a network of a superior transport infrastructure of transit character in the territory of Southwestern Slovakia, running to the west, north and east of Slovakia. Bratislava-Trnava core settlement area, together with Nitra core settlement area, is classified as a polycentric system of international importance, while its cross-border bonds with Vienna and Gyor are moving the importance of this whole system to international level and higher. Besides the advanced sectors of industry and services, the Bratislava - Trnava - Nitra settlement structure is characteristic with high development potential of quaternary (knowledge economy, scientific background, innovation) activities. Significant specific characteristics of the capital city Bratislava implicate the separation of the Bratislava region as a self-monitoring and evaluating transport region.

Important measures of SPRDI SR 2020 are concerning the area of the Southwestern Slovakia. Within the road transport, it is concerning the infrastructure measure "Road network in the Bratislava agglomeration", which includes projects (projects classification colours are mentioned) of the construction of the expressway R7 in section Dunajská Lužná – Holice – Dunajská Streda – Nové Zámky – Central Slovakia region border and D1 project Blatné - Trnava, extension to 6 lanes. The preparation of the construction of the expressway R1 Most pri Bratislave – Vlčkovce is currently in the process of the selection of the route (variant).

In the railway transport, it is concerning the infrastructure measure Technological ensuring of interoperability, which will include the implementation of the Deployment of ERTMS in the Corridor IV in section Kúty state border SR/Czech Republic - node Bratislava (ETCS L2 + GSM R) on the railway line No. 110 and in the section Bratislava - Nové Zámky - Štúrovo / Komárno (ETCS L2 + GSM R) on railway lines No. 130 and 135. Concerning lines not included in the TEN-T network, the electrification and double-tracking of the line No. 131 Bratislava Nové Mesto - Dunajská Streda – Komárno is under preparation, as well as the electrification of the track Leopoldov – Nitra – Šurany.

In the area of intermodal transport, it is concerning infrastructure measures - Intermodal Transport Terminals, which include the implementation of the Intermodal Transport Terminal Leopoldov, stage I.

Organisational, operational and infrastructural measures for the region are under preparation within the SRVOND SR 2020, their known - green marked - activities are listed below:

- ZSSK, Project concerning the building of units for technical and sanitary maintenance, Nové Zámky



Region: Southwestern Slovakia, assessment of cumulative impacts			
Environmental objectives	Score	Cumulative impacts	Recommendations
Transport settlement	- 0	<p>The implementation of the transport infrastructure projects will have a positive impact on the population, particularly through the improvement of the transport accessibility of the capital city Bratislava by the road and railway transport. Infrastructure project of these transport modes are radially arranged in regard to Bratislava. Projects aimed at the improvement of the transport service in the core settlement areas Trnava and Nitra in the railway transport are under preparation, of which the electrification of the track Leopoldov – Nitra is to contribute to the improvement of operational conditions and to the improvement of the quality of travelling. Allocations in the projects concerning construction and upgrading of I. class roads are aiming at the same purpose.</p> <p>Cumulation of positive impacts in the area of transport service could occur in Nitra, where apart from the mentioned electrification of the railway line an upgrading of the railway station and the establishment TIOP is in consideration as well. In the area of the public passenger and non-motorised transport, the problem is the missing organisational measure aimed at the implementation of an integrated transport system (ITS) in Nitra. In Trnava on the contrary, the declared organisational measure for the establishment of ITS in the city is lacking a sufficient number of specific projects included in the project pipeline.</p> <p>Construction of the intermodal transport terminal in Leopoldov will improve conditions for the access of the business community from the Southwestern Slovakia to transport services.</p>	Add organisational measure to establish ITS in Nitra, add specific ITS projects in Trnava
Public health	+2	It is possible to categorise the measures for the Southwestern Slovakia as a systematic support of the public passenger and non-motorised transport. These measures for the Bratislava region will have a very significant impact on public health, as there will be a gradual shift of transport performance towards more environmentally friendly modes, what will result in the improvement of the environment, which directly affects the health of population. It is also possible to presume the reduction of the share of individual car transport in the mobility, what has a clearly demonstrable impact on the reduction of road accidents and related number of injuries and fatalities. Systematic support of the public passenger transport can therefore have a very significant impact on the health of the population.	None
Air and climate	+2	Like in the previous paragraph, systematic support of the public passenger transport and non-motorised transport from the side of Bratislava will have a strong impact on the quality of the environment, as there is an assumption of a decline in the performance of the individual car transport. Decline in the performance of the individual car transport means less production of greenhouse gas emissions.	None
Soil and rock environment	-1	<p>In the region, there will be a take of the best quality agriculture soil of class 1 to 4. Due to the lower proportion of forest land, the land take is primarily concentrating on the areas of commercial forests and to a lesser extent on forests with protective and special function. In terms of geological bedrock, in lowland areas there are risk areas with route running in cuttings, which could lead to the disruption of covering layers.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	Minimise the land take, within the preparation and implementation perform measures to ensure the stability of the rock environment.
Water	-1	<p>Routes are passing through the II. degree protection zone of water supply source and protected water management area Žitný ostrov, in the region, there are sources of natural healing waters Čilistov, interference with its II. degree protection zone.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	Within the preparation and implementation perform measures to protect the waters
Nature conservation	-1	Protected areas are of smaller area, within the planning of new sections of the transport infrastructure it is possible to avoid direct territorial conflicts, direct contact is imminent only when crossing streams, which are declared as protected areas. Measures in the railway transport are bound to the existing route, direct impacts on protected areas	None

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		are not expected. The intermodal transport has no impact on protected areas.	
Natura 2000	-1	A significant negative impact on the Special Protection Area Úľanská mokrad' has been identified in the region within the selection of R1 route through the assessment pursuant to the Article 6(3) and 6(4) of Directive on habitats. There is a direct contact of R7 expressway sections also in the case of other SPA (SKCHVU Dolné Považie, SKCHVU Poíplie) and SAC (SAC Alúvium Ipľa, SAC Dálovský močiar, SAC Zátoň), where however, the appropriate assessment did not indicate any significant negative impacts. Measures in the railway transport are bound to the existing routes, negative impacts on Natura 2000 are not expected.	Follow the recommendations resulting from the assessment of individual projects pursuant to the Article 6(3) and 6(4) of Directive on habitats and implement planned measures to reduce impacts.
Landscape	-1	Planned measures of SPRDI 2020 in the landscape have impact on TSES elements. Construction of new sections of the road infrastructure increases the barrier effect in agricultural lowland country with a small number of preserved natural elements as centres of biodiversity and ecological corridors.	Some measures (underpasses, ecoducts) can mitigate impacts on the migration passability and fragmentation of habitats.
Cultural heritage	0	Adverse cumulative impacts of projects on the cultural heritage elements are not expected, shift of road traffic from settlements and concurrent shift of performance from road transport to the railway can contribute to the reduction of risks to the cultural monuments caused by vibrations and emissions.	None
Material resources	+1	The decline in performance of individual car transport will have a positive impact on the overall reduction in fuel consumption and saving of natural resources. Cumulative impact on material resources is not expected.	None

#### Region: Northwestern Slovakia, description of cumulative assessment considerations

The area of interest is consistent with the transport region defined in the binding part of KURS 2011. It is concerning the area of Trenčín and Žilina self-governing regions with transport-gravity centre in the space between Žilina and Martin. Cities of Žilina and Martin form a single core settlement area of national, even international importance, the city of Trenčín represents a core settlement area of national significance. Settlement of the region is concentrated mostly in the Váh river valley. Major transport-gravity axes of the region and Slovakia are situated in the valley of rivers Váh, Kysuce and Turiec. These axes are consistent with major settlement development axes Bratislava – Žilina/Martin – Košice/Prešov, Žilina – Čadca – ČR, Žilina/Martin – Turčianske Teplice – Banská Bystrica/Zvolen. In the Váh river valley leads the most intensively used transport corridor in Slovakia in the west-east direction, where there are existing, under construction and planned sections of the D1 motorway, I. class road I/18 and the main railway line No. 180, (multimodal corridor Va), in the Kysuca river valley leads an intensely loaded - especially by freight transport - north-south corridor, with planned motorway D3 under construction, I. class road I/11 and the railway line No. 127 (multimodal corridor VI). Besides the advanced sectors of industry and services, the Žilina - Martin core settlement area a territory with high development potential of quaternary (knowledge economy, scientific background, innovation) activities.

Important measures of SPRDI SR 2020 are concerning the area of the Northwestern Slovakia. In the road transport, it is concerning infrastructure measures Completion of motorway D1, North - south interconnection to Poland and Czech Republic, East - west communication axis in Central Slovakia, North - south communication axis in Central Slovakia, Completion of priority axis west - east of Slovakia.

Within the measure Completion of motorway D1 it is concerning the implementation of the construction (projects of all classification colours are mentioned) of the motorway D1 in sections Hričovské Podhradie - Lietavská Lúčka (phase 1 and 2), feeder Lietavská Lúčka – Žilina, Lietavská Lúčka - Višňové - Dubná Skala (phase 1 and 2), Turany – Hubová, Hubová - Ivachnová (phase 1 and 2).

The measure North - south interconnection to Poland and Czech Republic is concerning the construction of expressway R5 in sections Svrčinovec - state border SR/Czech Republic, of the motorway D3 in sections Svrčinovec - Skalité, half profile (phase 1 and 2), Čadca Bukov – Svrčinovec, Kysucké Nové Mesto – Oščadnica, Žilina Brodno - Kysucké Nové Mesto, Žilina Strážov - Žilina Brodno (phase 1 and 2) and of the expressway R3 in sections Martin – Rakovo, Rakovo - Horná Štubňa, Horná Štubňa - Šášovské Podhradie.

Within the measure East - west communication axis in Central Slovakia it is concerning the construction of the R2 expressway in sections Interchange with D1 - Mníchova Lehota, Mníchova Lehota – Ruskovce, Pravotice - Dolné Vestenice, Dolné Vestenice – Nováky, Nováky - Prievidza - Žiar nad Hronom.

Within the measure aiming at the North - south communication axis in Central Slovakia it is concerning the construction of R3 expressway in sections Tvrdošín – Nižná - Dlhá nad Oravou - Sedliacka Dubová, Oravský Podzámok - Dolný Kubín - D1 interchange in Hubová, with continuation in the section Martin – Rakovo – Horná Štubňa – Šášovské Podhradie (R3 alternative) and within its sub-alternative R3-R1-R3 it is concerning the R1 expressway section Slovenská Ľupča – Korytnica – Ružomberok (replacing the section Martin – Rakovo – Horná Štubňa – Šášovské Podhradie).

Within the measure Completion of priority axis west - east of Slovakia, it is concerning the construction the expressway R6 in section state border SR/Czech Republic - Lysá pod Makytou – Mestečko – Púchov. Infrastructure measure of the railway transport Upgrading of TEN-T network includes the implementation of constructions on the line No. 180 Poprad-Tatry – Lučivná a Paludza – Liptovský Hrádok. The upgrading of the railway No. 127 state border Czech Republic/SR - Čadca - Krásno nad Kysucou (outside) will also be implemented. Upgrading of the railway line Púchov - Považská Teplá - Žilina, for a line speed of up to 160 km/h will be implemented on the railway line No. 120. In the railway node Žilina, there will be an implementation of the Completion of marshalling yard in Žilina - Teplička and a follow up railway infrastructure.

In the area of intermodal transport, it is concerning infrastructure measures - Intermodal Transport Terminals, including the implementation of the Intermodal Transport Terminal Žilina, stage I.

Organisational, operational and infrastructural measures for the region are under preparation within the SRVOND SR 2020, their known - green marked - activities are listed below:

- Žilina, Upgrading of traction sub-stations in Žilina (technology + capacitors)
- Žilina, Establishment of dynamic preference of mass urban transport at signalised intersections
- Žilina, Cycling route H2 (Solinky - centrum), Žilina
- Žilina, Cycling route V6 (Veľký Diel - Vlčince, Trolleybus terminus)
- Žilina, Cycling route V9 (Vlčince - Žilina waterworks)
- DPMŽ, Low-floor and energy-efficient trolleybuses and trolleybuses with auxiliary drive for Žilina
- Žilina, Upgrading of dispatching management, on-line tracking, information
- Žilina, Upgrading of trolleybus infrastructure in Žilina
- Žilina, Construction of trolleybus lines and turning circles in Žilina
- Žilina, Establishment of on-line ticketing - software, hardware
- Žilina, Upgrading of vehicle information and communication system
- Žilina, Cycling route V7 (Veľký Diel - Carrefour), Žilina
- DPMŽ, Low-floor, environmentally friendly (hybrid) buses – procurement
- ZSSK, Project concerning the building of units for technical and sanitary maintenance, Žilina

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Region: Northwestern Slovakia, assessment of cumulative impacts			
Environmental objectives	Score	Cumulative impacts	Recommendations
Transport settlement	- +1	<p>The implementation of the transport infrastructure projects has a positive impact on the public through the improvement of transport services in road and railway transport. Cumulative benefit of the projects related to the two most involved types of transport have an important effect in support of the transport multimodality, impacting also the environmental aspects of the transport. The economic sector of the Northwestern Slovakia perceives the current state of the transport infrastructure as a significant limiting element concerning the cooperation with regions in Poland and Czech Republic. In connection with the building of transport infrastructure, there is a presumption of the development of the territory and development of the international cooperation with regions in Czech Republic and Poland in the economic area. In the area of recreation and tourism, there will be a great improvement in the availability of recreational areas of international importance, i.e. Oščadnica-Veľká Rača, Makov, Skalité-Serafinov and of national importance Nová Bystrica-Vychylovka with a link to the recreational area in Oravská Lesná.</p> <p>Projects of the road infrastructure within the measure "North - south communication axis in Central Slovakia" in both alternatives will have a minimum impact on the improvement of mutual accessibility of major core settlement areas Žilina/Martin and Banská Bystrica/Zvolen as they are located in an unpopulated and in terms of residential development irrelevant territory (Natura 2000 in the alternative R3-R1-R3), or outside corridor of the major settlement-communication axis Žilina/Martin – Turčianske Teplice – Banská Bystrica/Zvolen (in the R3 alternative). In an approx. 35 km long unpopulated section of the expressway R1 Slovenská Ľupča – Ružomberok, there will be no multiplication effect of the investment and potential of 4 lanes of the expressway and two lanes of parallel I. class road I/59.</p> <p>Conditions for the economy based on high quality logistic services are much worse in the eastern part of the region of the north-western Slovakia compared to the western part. The existing supplier-dependent structure of the automotive industry is spatially limited by the line of the Strečno strait. Implementation of large scale projects will allow reaching equal conditions in the economy sector for entrepreneurship and economic development in the entire territory of the region. Moreover, the projects will ensure homogenous and high quality access to the tourist destinations in the Liptov region, the most visited area of Slovakia comparable to the capital Bratislava.</p> <p>The construction of the Intermodal Transport Terminal in Žilina/Teplička nad Váhom will improve conditions for the access of the business community to transport services. In connection with the upgrading of railways and the railway node Žilina, with the construction of motorways and the development of already launched logistic services, it is concerning significant primary, positive and long-term effects in area of the freight transport.</p> <p>Projects of the construction and reconstruction of I. class roads have the potential to improve the transport service and the access from regions into the centres like Žilina, Trenčín and Prievidza.</p>	<p>The reconsideration of the measure "North - south communication axis in Central Slovakia" in the section between the region Pohronie and the region Považie, crossing a large settlement barrier, within the phase II of SPRDI SR 2020.</p> <p>Add projects of the public passenger and non-motorised transport in the city of Martin.</p>
Public health	+2	<p>It is possible to categorise the measures for the Northwestern Slovakia as a systematic support of the environmentally friendly modes of transport - public passenger and non-motorised transport. There will be a gradual shift of transport performance towards more environmentally friendly modes, what will result in the improvement of the environment, which directly affects the health of population. Basically, it is also possible to presume the reduction of the share of individual car transport in the mobility, what has a clearly demonstrable impact on the reduction of road accidents and related number of injuries and fatalities. Systematic support of the public passenger transport can therefore have a very significant impact on the health of the population.</p>	None

Air and climate	+2	Systematic support of the environmentally friendly modes of transport - public passenger and non-motorised transport - will have a strong impact on the quality of the environment, as there is an assumption of a decline in the performance of the individual car transport. Decline in the performance of the individual car transport means less production of greenhouse gas emissions.	None
Soil and rock environment	-1	Extensive land claims will be generated by projects concerning two infrastructure types - construction of the road infrastructure and the upgrading of railway infrastructure modernisation will be mostly performed in a new corridor, concerning the rugged territory. There are mostly soils of a lesser quality in the region.  Planned D1 and D3 motorway sections pass in several sections through geologically unstable or potentially unstable areas. Unstable rock environment is present in the northern part of the region as well.  Cumulative effects of these projects on these areas are not expected, their constructions do not coincide in the area.  Other projects are bound to the existing infrastructure without significant land claims.	Minimise the land take, within the preparation and implementation perform measures to ensure the stability of the rock environment.
Water	-1	Projects impact several protection zones of water sources and the protected water-management area Beskydy – Javorníky and the protected water management area Veľká Fatra. Many individual water sources will be destroyed by the construction of the motorway in the Kysuce region. Besides the region of Kysuce, the impact on the protection zone of the water supply sources is also present in the Liptov region.  Cumulative impacts caused by the construction of small hydroelectric plants on rivers Kysuca and Váh would manifold outweigh potential impacts of transport infrastructures, so the contribution of OPII projects can be considered less significant.  Other projects are bound to the existing infrastructure without significant land claims.	Within the preparation and implementation perform measures to protect the waters
Nature conservation	-1	Measures, particularly in the road transport, are interfering with many large as well as small-scale protected areas with their relatively dense network in the region. Cumulative impacts will have effect in places where there is a concurrence of rail and road transport in one corridor. The most significant conflicts are foreseen for the infrastructure measure Completion of the motorway D1 in the corridor of the Váh river. Close contact with several protected areas, transport accessibility of the area and the subsequent development of the area, construction and increased tourism may cause a higher risk of degradation of some protected areas.	Minimise interference with protected areas and implement measures pursuant to the recommendations of the EIA process.
Natura 2000	-1	Infrastructure measures in the road and railway transport affect several SAC and SPA between Veľká Fatra and Malá Fatra, in the Váh river valley and in the basin of rivers Turiec and Orava. Geomorphologic conditions do not allow avoiding direct impacts on the Natura 2000 sites in any variant of the measure Completion of the motorway D1. The most complicated sections of D1 in terms of the impact are Martin - Hubová - Ivachnová. There is a direct interference with SKCHVU Malá Fatra, SKCHVU Chočské vrchy, SAC Malá Fatra, SAC Veľká Fatra, SAC Váh. Cumulative impacts of other projects represent the known location of 14 profiles of small hydroelectric plants within SAC Váh, as well as the concurrence of the road and rail transport in one corridor.  The expressway R1 in section Ružomberok - Slovenská Ľupča represents an interference with area, which is relatively undisturbed by the urbanisation, where it directly affects SAC Revúca, SAC Salatín, SAC Zvolen, SAC Ďumbierske Tatry, SAC Alúvium Hrona, SKCHVU Nízke Tatry and SKCHVU Veľká Fatra.  Within the implementation of the expressway R3 in sections between Tvrdošín and Hubová, there is an interference with SKCHVU Chočské vrchy and SAC Orava, which are crossed by the route several times, which is unavoidable in a narrow meandering valley.  The continuation of R3 in the section from Martin to Šášovské Podhradie will affect the SAC Turiec and Blatnický potok and the SAC Žarnovica.	Follow the recommendations resulting from the assessment of individual projects pursuant to the Article 6(3) and 6(4) of Directive on habitats and implement planned measures to reduce impacts.

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		<p>The expressway R2 in the region will probably affect the SAC Rokoš.</p> <p>In the region of Kysuce, with planned routes of the motorway D3, expressway R5 and expressway R6 between Púchov and the border SR/Czech Republic, there are no Natura 2000 sites.</p> <p>Concerning the railway transport projects, SAC Varínka will be affected within the implementation of the marshalling yard in Žilina - Teplička and the follow up railway infrastructure. The project concerning the upgrading of the railway line No. 180 affects SAC Poprad.</p>	
Landscape	-1	<p>Implementation of the road infrastructure projects has negative impact on the scenery in the mountain area. Routes are crossing several important stream and terrestrial bio-corridors, they particularly affect habitats of water courses and accompanying riparian vegetation by bridges. Implementation of several constructions in the territory strengthens this pressure. Concentration of road and railway transport into a narrow corridor in valleys of rivers will augment the cumulative barrier effect. The rugged landscape is also affected by the construction of new anthropogenic elements resulting in changed landscape scenery.</p>	<p>Measures to improve the connectivity of habitats (underpasses, ecoducts, technical solutions of bridges and elevated roads) are necessary. Viability of populations of certain species would be directly jeopardized without them.</p>
Cultural heritage	0	<p>Adverse cumulative impacts of projects on the cultural heritage elements are not expected, shift of road traffic from settlements and concurrent shift of performance from road transport to the railway can contribute to the reduction of risks to the cultural monuments caused by vibrations and emissions. There will be local interferences with archaeological sites.</p>	None
Material resources	+1	<p>The decline in performance of individual car transport will have a positive impact on the overall reduction in fuel consumption and saving of natural resources. Cumulative impact on material resources is not expected.</p>	None

#### Region: Central Slovakia, description of cumulative assessment considerations

The area of interest is consistent with the transport region defined in the binding part of KURS 2011. It is concerning the area of Banská Bystrica self-governing region with transport-gravity centre in the space between Banská Bystrica and Zvolen. Mentioned cities are also forming a single core settlement area of the national importance, even international importance. Settlement of the region is concentrated mostly in the Hron river valley and the area between Lučenec and Rimavská Sobota. Major transport-gravity axes of the region and Slovakia are situated in the valley of the river Hron, in the territory between Zvolen, Lučenec and Rimavská Sobota. These axes are consistent with major settlement development axes Bratislava – Nitra – Banská Bystrica/Zvolen - Košice/Prešov, Žilina/Martin – Turčianske Teplice – Banská Bystrica/Zvolen. In the line Bratislava - Nitra - Banská Bystrica/Zvolen - Košice leads the second most intensively used transport corridor in Slovakia in the west - east direction, with the expressway R2 under construction, I. class road I/50 and the railway line No. 160. The Banská Bystrica - Zvolen core settlement area represents a territory with high development potential of quaternary (knowledge economy, scientific background, innovation) activities.

Important measures of SPRDI SR 2020 are concerning the area of the Central Slovakia. In the road transport, it is concerning infrastructure measures North - south interconnection to Poland and Czech Republic, East - west communication axis in Central Slovakia, North - south communication axis in Central Slovakia.

Within the measure North - south interconnection to Poland and Czech Republic, it is concerning the construction (projects of all classification colours are mentioned) of the expressway R3 in sections Horná Štubňa - Šášovské Podhradie, Zvolen – Šahy.

Within the measure East - west communication axis in Central Slovakia, it is concerning the construction of the R2 expressway in sections Zvolen západ - Zvolen východ , Kriváň – Lovinobaňa – Ožďany – Zacharovce - Tornaľa – Gombasek.

Within the measure North - south communication axis in Central Slovakia, it is concerning the construction of the expressway R1 in sections Banská Bystrica - Slovenská Ľupča – Korytnica and R3 in section Zvolen - Šahy.

In the railway transport, it is concerning infrastructure measure Electrification of important lines. Within the measure, there will be an implementation of the electrification in sections of the railway line No. 160 Moldava nad Bodvou – Fíľakovo – Zvolen.

Organisational, operational and infrastructural measures for the region are under preparation within the SRVOND SR 2020, their known - green marked - activities are listed below:

- Revitalisation of street areas of city district Sásová in Banská Bystrica with the connection to city centre in order to prefer the public passenger and non-motorised transport.
- Cycling route Podlavice- Hušták – Bus station and railway station and railway stop - mesto Banská Bystrica with overpass (flyover) over the road I/66 and supplementary cycling infrastructure
- Implementation of traffic playground in Banská Bystrica
- Bicycle and pedestrian path in Banská Bystrica - Šalková
- ZSSK, Project concerning the building of units for technical and sanitary maintenance, Zvolen



## Environmental Report

Region: Central Slovakia, assessment of cumulative impacts			
Environmental objectives	Score	Cumulative impacts	Recommendations
Transport settlement	- 0	<p>The implementation of transport infrastructure projects will have a positive impact on the population, particularly through the improvement of the transport accessibility of the core settlement area Banská Bystrica/Zvolen in the south-east direction and thus through the connection with the core settlement area Košice/Prešov. The regional accessibility of Lučenec and Rimavská Sobota, which are forming a polycentric system/core settlement area of 2<sup>nd</sup> level, will be also improved within this settlement axis.</p> <p>Projects of the road infrastructure within the measure "North - south communication axis in Central Slovakia" in both alternatives will have a minimum impact on the improvement of mutual accessibility of major core settlement areas Žilina/Martin and Banská Bystrica/Zvolen as they are located in an unpopulated and in terms of residential development irrelevant territory (Natura 2000 in the alternative R3-R1-R3), or outside corridor of the major settlement-communication axis Žilina/Martin – Turčianske Teplice – Banská Bystrica/Zvolen (in the R3 alternative). In an approx. 35 km long unpopulated section of the expressway R1 Slovenská Ľupča – Ružomberok, there will be no multiplication effect of the investment and potential of 4 lanes of the expressway and two lanes of parallel I. class road I/59.</p> <p>Projects of the road infrastructure within the measure "West - east communication axis in Central Slovakia" will have a minimum impact on the improvement of the mutual accessibility of major core settlement areas Trenčín and Banská Bystrica/Zvolen, as there has been a preference of the connection of the expressway R1 in Žiar nad Hronom (core settlement area of 3<sup>rd</sup> level).</p> <p>Projects for reconstructions and construction of I. class roads in the area of Lučenec, Tisovec, Brezno, Kremnica will improve the intraregional accessibility as well as the quality of the transport service in cities.</p> <p>The cumulation of positive effects in the area of the transport service could particularly occur in Banská Bystrica with prepared VOND projects included in the integrated transport system of the city. The absence of similar projects in Zvolen represents a significant drawback.</p>	<p>The reconsideration of the measure "North - south communication axis in Central Slovakia" in the section between the region Pohronie and the region Považie, crossing a large settlement barrier, within the phase II of SPRDI SR 2020.</p> <p>Add VOND projects classifiable into the ITS system in the city of Zvolen.</p>
Public health	+2	Planned measures for the Central Slovakia can be clearly characterised as a systematic support of environmentally friendly modes of transport - public passenger and non-motorised transport. Whereas it is assumed that there will be a gradual shift of transport performance towards more environmentally friendly modes, it is possible to expect the improvement of the environment, which directly affects the health of population. Thus it is possible to presume the reduction of the share of individual car transport in the mobility, what has a clearly demonstrable impact on the reduction of road accidents and related number of injuries and fatalities. Systematic support of the public passenger transport can therefore have a very significant impact on the health of the population.	None
Air and climate	+2	Systematic support of the environmentally friendly modes of transport - public passenger and non-motorised transport - will have a strong impact on the quality of the environment. There is an assumption of a decline in the performance of the individual car transport. Decline in the performance of the individual car transport means less production of greenhouse gas emissions.	None
Soil and rock environment	-1	<p>Road infrastructure projects have significant claims on the land. Construction of the road infrastructure will be mostly performed in a new corridor, concerning the rugged territory. There are mostly soils of a medium and lesser quality in the region.</p> <p>Planned routes of expressways are in several sections passing through geologically unstable or potentially</p>	Minimise the land take, within the preparation and implementation perform measures to ensure the stability of the rock environment.

		<p>unstable areas. The upgrading of railways is planned in an existing corridor.</p> <p>Cumulative effects of these projects on these areas are not expected, their constructions do not coincide in the area.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	
Water	-1	<p>Projects impact several protection zones of water sources and the protected water-management area Nízke Tatry - západ and the protected water management area Horné povodie Ipľa, Rimavice a Slatinky. In the region, there are interferences with protection zones of natural healing water sources of spas in Sliač and Číž.</p> <p>Cumulative impacts caused by the construction of small hydroelectric plants on rivers Hron and Ipel' would manifold outweigh potential impacts of transport infrastructures, so the contribution of OPII projects can be considered less significant.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	Within the preparation and implementation perform measures to protect the waters
Nature conservation	-1	<p>The construction of new sections of the transport infrastructure will have impact on several national parks and affect some small-scale protected areas. The most significant impact will be caused by the construction of the expressway R1 in section Banská Bystrica – Ružomberok, with new sections located in national parks and their protection zones. Infrastructure measures in the railway transport, represented by the electrification of tracks, are not interfering with interests of the nature conservation.</p>	Minimise interference with protected areas and implement measures to mitigate impacts.
Natura 2000	-1	<p>Most significant impacts are indicated on the route of R1 Banská Bystrica - Ružomberok, with route passing in a valley so far undisturbed by the urbanisation. In the relevant region, in section Banská Bystrica - Slovenská Ľupča – Korytnica, it interferes with the SAC Alúvium Hrona, SAC Ďumbierske Tatry, SAC Priboj and SPA Nízke Tatry.</p> <p>In sections of the expressway R2 between Zvolen and Gombasek, the route is in a marginal contact with the SPA Cerová vrchovina - Porimavie and SPA Slovenský kras and several SAC (SAC Slaná, SAC Plešivské stráně, SAC Pod Strážnym hrebeňom). Cumulative impacts with a railway corridor are expected in this section as well. The contact and interference with Natura 2000 sites is also present in the route of the R3 expressway (SAC Turiec a Blatnický potok, SAC Žarnovica, SAC Mäsiarsky bok, SAC Skalka and SAC Alúvium Ipľa). Infrastructure measures in the railway transport, represented by the electrification of tracks, are not interfering with the Natura 2000 sites.</p>	Follow the recommendations resulting from the assessment of individual projects pursuant to the Article 6(3) and 6(4) of Directive on habitats and implement planned measures to mitigate impacts on the favourable conservation status of habitats and species.
Landscape	-1	<p>Concerning the rugged character of the territory, the construction of the road infrastructure will be mostly performed in a new corridor, resulting in new barriers in the area and reduction of the migration passability.</p>	Some measures (underpasses, ecoducts) can mitigate impacts on the migration passability and fragmentation of habitats.
Cultural heritage	0	<p>Adverse cumulative impacts of projects on the cultural heritage elements are not expected, shift of road traffic from settlements and concurrent shift of performance from road transport to the railway can contribute to the reduction of risks to the cultural monuments caused by vibrations and emissions. There will be local interferences with archaeological sites.</p>	None
Material resources	+1	<p>The decline in performance of individual car transport will have a positive impact on the overall reduction in fuel consumption and saving of natural resources. Cumulative impact on material resources is not expected.</p>	None

#### Region: Eastern Slovakia, description of cumulative assessment considerations

The area of interest is consistent with the transport region defined in the binding part of KURS 2011. It is concerning the area of Prešov and Košice self-governing region with transport-gravity centre in the space between Košice and Prešov. These cities are also forming a single core settlement area of national importance, even international importance. Settlement of the region is concentrated mostly in valleys of rivers in the Východoslovenská nížina lowland and in the Vysoké Tatry mountains in the north. Major transport-gravity axes of the region and Slovakia are situated radially towards the centre, represented by the core settlement area Košice/Prešov. These axes are consistent with major settlement development axes Bratislava – Žilina/Martin – Košice/Prešov – Michalovce – Vyšné Nemecké, Bratislava – Banská Bystrica/Zvolen – Košice/Prešov, Košice – Milhošť. In the northern part of the region, there is the most intensively used transport corridor in Slovakia in the west-east direction, where there are existing, under construction and planned sections of the D1 motorway, I. class road I/18 and the main railway line No. 180, (multimodal corridor Va). In the southern part of the region, there is the second most intensively used transport corridor in Slovakia in the west - east direction, with the expressway R2 under construction, I. class road I/50 and the railway line No. 160. The intensely loaded - particularly by the freight transport - north-south corridor leads in the line Svidník - Prešov - Košice - Milhošť. Košice - Prešov core settlement area is characterised by advanced sectors of industry and services, as well as with high potential of quaternary (knowledge economy, scientific background, innovation) activities Concerning the transport relations, the city of Poprad has a unique position, providing access to the tourist destination of international importance Vysoké Tatry. The fact that Vysoké Tatry are particularly one of the most valuable natural areas in Slovakia makes this territory sensitive against any human activity.

Important measures of SPRDI SR 2020 are concerning the area of the Eastern Slovakia. In the road transport, it is concerning infrastructure measures Completion of motorway D1, East - west communication axis in Central Slovakia and North - south interconnection in the Eastern Slovakia.

Within the measure Completion of the motorway D1, it is concerning construction of (project of all classification colours are mentioned) the motorway D1 in sections feeder Spišská Nová Ves stage II, Studenec - Behárovce (completion of interchange), Behárovce – Branisko, 2<sup>nd</sup> profile (the Branisko tunnel), Prešov západ - Prešov juh, Budimír - Dargov - Pozdišovce – state border SR/Ukraine, feeder Michalovce. Within the measure East - west communication axis in Central Slovakia, it is concerning the construction of the R2 expressway in sections Gombasek - Rožňava - Jablonov nad Turňou (Soroška) - Včeláre - Košice, Šaca - Košické Oľšany. Within the measure North - south interconnection in the Eastern Slovakia, it is concerning the construction of the expressway R4 in sections state border Poland/SR - Hunkovce – Ladomírová, Svidník – Lomné - Hanušovce nad Topľou – Kapušany – Nižná Šebastová and Prešov northern bypass.

In the railway transport, it is concerning infrastructure measures - Upgrading of TEN-T network and Electrification of important lines.

Infrastructure measure of the railway transport Upgrading of TEN-T network includes the implementation of constructions on the line No. 180 Poprad-Tatry – Lučivná, Spišská Nová Ves - Poprad-Tatry and Kysak – Košice. Another part of the measure is the initial structure of the system of the Integrated rail transport in section of the line No. 180 Košice - Kostolany nad Hornádom, as well as the upgrading of the railway node Čierna nad Tisou.

Electrification of important lines will include the construction on sections of the railway line No. 160 Haniska pri Košiciach – Moldava nad Bodvou – Filákov and the railway line No. 191 Bánovce nad Ondavou – Humenné.

In the area of intermodal transport, it is concerning infrastructure measures - Intermodal Transport Terminals, including the implementation of the Intermodal Transport Terminal Košice, stage I of the construction.

In the air transport, it is concerning infrastructure measures Upgrading, construction and maintenance of infrastructure of TEN-T network airports, with projects like Upgrading of RWY a TWY at Poprad - Tatry airport, Terminal for air cargo services at Košice airport and Hangar for aircrafts with code mark "C" a "D" at Košice airport.

Organisational, operational and infrastructural measures for the region are under preparation within the SRVOND SR 2020, their known - green marked - activities are listed below:

- Renewal of tram fleet in Košice
- Upgrading of maintenance basis in Košice
- ŽSR, Terminals of integrated passenger transport (TIOP) in Košice self-governing region stage I (project documents + implementation)
- Low-cost measures concerning cycling in urban areas of Prešov
- Installation of gas propulsion in buses of public transport, Prešov
- Purchase of duobuses in Prešov
- Upgrading of tramway lines in Košice - stage II
- Updating of the Transport service plan of Košice self-governing region
- ZSSK, Project concerning the building of units for technical and sanitary maintenance, Košice, Humenné

Region: Eastern Slovakia, assessment of cumulative impacts			
Environmental objectives	Score	Cumulative impacts	Recommendations
Transport settlement	- +2	<p>The implementation of the transport infrastructure projects has a positive impact on the public through the improvement of transport services in road and railway transport in the region and of the passenger transport and non-motorised transport in cities. The cumulative contribution of projects of the two most widely used modes of transport has a major impact on the environment resulting in the strengthening of the multimodality of transport, with an impact on the environmental aspects of the operation.</p> <p>Measures support the social inclusion by improved transport accessibility of the regions with high unemployment rate in the entire area, but especially in the regions of Spiš and Rožňava. In connection with the building of transport infrastructure, there is a presumption of improved conditions for the development of the territory and development of the international cooperation with regions in Poland, Hungary and Ukraine. In this context, quality transport services could bring the core settlement area Košice / Prešov nearer towards its vision of a centre of an international region in the Carpathian territory. The improvement of transport services can be also expected in the area of recreation and tourism. It is particularly concerning recreation areas of international importance. i.e. Vysoké Tatry and Belianske Tatry, Slovenský kras. An integrated transport system is planned in the area of Poprad - Vysoké Tatry, which will be connected with an upgraded railway line and the international airport in Poprad. Transport services in this top Slovak tourist destination will thus reach a higher qualitative level as one integrated complex.</p> <p>In the area of Košice, it is possible to expect significant primary, positive and long-term impacts in area of the freight transport (establishment of a new intermodal transport terminal in Košice, upgrading of the airport, railway lines, construction of motorway and expressway). Košice has thus an opportunity to become a quality transforming transport node.</p> <p>Projects of the construction and reconstruction of I. class roads have the potential to improve the transport service and the access to some regional centres of the Eastern Slovakia.</p>	None
Public health	+2	<p>Planned measures for the Eastern Slovakia can be clearly characterised as a systematic support of environmentally friendly modes of transport - public passenger and non-motorised transport. There will be a gradual shift of transport performance towards more environmentally friendly modes, what will result in the improvement of the environment, which directly affects the health of population. Basically, it is possible to presume the reduction of the share of individual car transport in the mobility, what has an impact on the reduction of road accidents and related number of injuries and fatalities. Systematic support of the public passenger transport can therefore have a very significant impact on the health of the population.</p>	None
Air and climate	+2	<p>Systematic support of the environmentally friendly modes of transport - public passenger and non-motorised transport - will have a strong impact on the quality of the environment. There is an assumption of a decline in the performance of the individual car transport. Decline in the performance of the individual car transport means less production of greenhouse gas emissions.</p>	None
Soil and rock environment	-1	<p>Extensive land claims will be generated particularly by projects of the road and railway infrastructure, the upgrading of the railway infrastructure for the most part of the section Poprad - Krompachy will be</p>	Minimise the land take, within the preparation and implementation perform measures to ensure the stability of the rock environment.

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		<p>performed in a new corridor, concerning the rugged territory. It is not technically possible to achieve the required performance in the current axis of the track.</p> <p>The route of planned motorway D1, as well as the route of the railway line, passes in several sections through geologically unstable or potentially unstable areas. The expressway R2 is designed in a relatively stable territory. Cumulative effects of these projects on these areas are not expected, their constructions do not coincide in the area.</p> <p>Other projects are bound to the existing infrastructure without significant land claims.</p>	
Water	0	The projects of R2 expressway interfere with protection zones of water supply sources and protected water management areas Slovenský kras - Horný vrch. Project of ŽSR in the section Kysak - Košice impacts the protection zone of an important water supply source Družstevná nad Hornádom. Cumulative effects of these projects on the mentioned sources are not expected. Other projects are bound to the existing infrastructure without significant land claims.	None
Nature conservation	-1	<p>Road infrastructure routes affect large-scale as well as some small-scale protected areas. There is an assumption of a direct take of parts of protected areas and indirect impacts (lighting pollution, noise, emissions) through the interference with these areas.</p> <p>Measures in the railway and inland waterway transport have a less significant impact, represented mostly by indirect impacts. Direct impacts in the railway transport are represented by the construction in sections of the line in the Tatras area, where the current route leads through protected areas as well.</p>	Minimise interference with protected areas and implement measures pursuant to the recommendations of the EIA process.
Natura 2000	-1	<p>The completion of D1 in the Eastern Slovakia will affect the SPA Košická kotlina, SPA Slanské vrchy and SPA Ondavská rovina. The most significant impact on the Natura 2000 sites will probably occur on the section of the expressway R2 running through the Slovenský kras mountains in the section Gombasek – Včeláre with impact on several areas (SAC Slaná, SAC Plešivské stráně, SAC Hrušovská lesostep and SPA Slovenský kras). There is a direct contact in other R2 sections as well (SPA Košická kotlina), the crossing can also not be avoided on the route of the expressway R4 (SPA Laborecká vrchovina, SAC Dukla).</p> <p>Railway sections between Poprad and Krompachy only marginally interfere with the Natura 2000 sites (SPA Slovenský raj, SPA Volovské vrchy, SAC Stredné Pohornádí). Cumulative impacts are resulting from the concurrent corridor of roads and the railway in confined conditions of the passing through Slovenský kras.</p>	Follow the recommendations resulting from the assessment of individual projects pursuant to the Article 6(3) and 6(4) of Directive on habitats and implement planned measures to mitigate impacts on the favourable conservation status of habitats and species.
Landscape	-1	Routes are crossing several important stream and terrestrial bio-corridors, they particularly affect habitats of water courses and accompanying riparian vegetation by bridges.	Some measures (underpasses, ecoducts) can mitigate impacts on the migration passability and fragmentation of habitats.
Cultural heritage	0	Adverse cumulative impacts of projects on the cultural heritage elements are not expected, shift of road traffic from settlements and concurrent shift of performance from road transport to the railway can contribute to the reduction of risks to the cultural monuments caused by vibrations and emissions. There will be local interferences with archaeological sites.	None
Material resources	+1	The decline in performance of individual car transport will have a positive impact on the overall reduction in fuel consumption and saving of natural resources. Cumulative impact on material resources is not expected.	None



## **ANNEX 4**

### **Assessment of SPRDI SR 2020 impacts on Natura 2000 sites**





## CONTENTS

1. Introduction
2. Assessment procedure
3. Basis for assessment
4. Identification of affected sites
5. Evaluation of the impact of SPRDI 2020 measures on affected localities and subjects of protection
6. Subjects of protection in affected Natura 2000 sites - summary table

## 1. Introduction

The subject of the assessment is the impact of the Strategic Plan for Development of Transport Infrastructure on the European network of protected areas Natura 2000 in the Slovak Republic, consisting of Special Protection Areas and Special Areas of Conservation pursuant to the Act No.543/2002 as amended.

Legal basis for NATURA 2000 network establishment consists of the following directives:

- Council Directive 79/409/EEC on the conservation of wild birds, replaced by the Directive of the European Parliament and of the Council 2009/147/EC (Birds Directive) and
- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitat Directive).

For implementation of transport infrastructure projects with a possible impact on NATURA 2000 sites, the following articles 6(3) and 6(4) of Habitat Directive governing the obligation and the process of the appropriate assessment of plans and projects are of crucial importance:

In Slovak Republic, corridors of transport routes are established under the strategic decisions based on the Slovak Spatial Development Perspective (KURS 2001), which defines the cooperation ties between polycentric systems of settlements and core settlement areas. These corridors were established in line with international conventions. Many of the projects within the network of motorways and expressways are already limited by beginnings and/or endings of existing sections or sections under construction. Assessment of the alternatives of lesser intervention with Natura 2000 sites is thus possible only with specific projects, i.e. at the EIA level.

## 2. Assessment procedure

The assessment was carried out for two levels of SPRDI 2020.

Within the strategic assessment of the SPRDI SR 2020, the 1<sup>st</sup> level included the evaluation of the compliance of visions, objectives and priorities of SPRDI 2020 with one of the environmental objectives of SEA - to ensure the integrity of Natura 2000 sites. The assessment can be found in Annex 1.1 and 1.2 of the Environmental Report, as a part of the overall assessment.

The 2<sup>nd</sup> level included the analysis of conflicts of the planned road, railway, intermodal, inland waterway and air transport infrastructure with Natura 2000 sites, projection of which interferes with defined corridors of planned projects of approx. 1 000 meters. The impact of individual measures on the integrity of the Natura 2000 sites and on subjects of their protection has been evaluated, considering the classification of territorial sectors.

The subject of the evaluation does not include specific territorial routing of transport structures and their technical design that fall within the EIA assessment.

Table 2 Scope of impact evaluation

Score	Description	Comment
-2	very significant impact	significant negative impact
-1	less significant impact	slightly negative impact
0	non-significant impact	zero impact
-1?	probably less significant impact	it needs to be confirmed or excluded by an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)
-2?	probably significant negative impact	it needs to be confirmed or excluded by an appropriate assessment (Assessment according to the Article 3 of Directive 92/43/EEC)
-2+	significant negative impact, determined by appropriate assessment	After determining the significant negative impact, technical measures have been suggested and repeatedly assessed by an appropriate assessment and within the additional assessment the significance score was reduced to -1

### 3. Basis for assessment

- Current graphic projection of the Natura 2000 sites (GIS layer, updated as of 31.12.2012) provided by the State Nature Conservancy of the Slovak Republic.
- Localisation of individual projects, graphic materials provided by MDVRR SR, SSC, NDS
- Order of the MŽP SR No. 3/2004-5.1 of 14 July 2004 on the issue of the national list of Special Conservation Areas.
- Order of the MŽP SR No. 1/2012 of 3 October 2012, amending the Decree of MŽP SR of 14 July 2004 No. 3/2004-5.1, on the issue of the national list of Special Conservation Areas.
- Decrees of MŽP declaring Special Protected Areas (affected SPA).
- <http://geo.enviroportal.sk/uev/>
- <http://geo.enviroportal.sk/vu/>
- <http://www.enviroportal.sk/sk/eia>
- <http://www.sopsr.sk/natura/>

## 4. Identification of affected sites

Table 3 Review of conflicts of road infrastructure constructions with Natura 2000 sites

Territorial sector	Special Protected Area - direct contact	Special Protected Area in a corridor of approx. 1 000 m	Special Area of Conservation - direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
Territorial sector No.1: MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava	SKCHVU023 Úľanská mokraď	0	0	SKUEV0089 Martinský les
Territorial sector No.2: MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin	SKCHVU013 Malá Fatra	0	0	SKUEV0667 Slnčné skaly
Territorial sector No.3: MI D1 and R3 Martin – MI D1 and R3 Hubová	SKCHVU013 Malá Fatra	0	SKUEV0238 Veľká Fatra SKUEV0252 Malá Fatra SKUEV0253 Váh	SKUEV0254 Močiar SKUEV0243 Orava SKUEV0663 Šíp
Territorial sector No.4: MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová	0	SKCHVU050 Chočské vrchy SKCHVU033 Veľká Fatra	SKUEV0253 Váh	SKUEV0305 Choč SKUEV0238 Veľká Fatra
Territorial sector No.5: MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ	0	0	0	SKUEV0109 Rajtopľky
Territorial sector No.6: MI D1 and R4 Prešov západ – MI D1 and R2 Košické Oľšany - Bidovce	SKCHVU009 Košická kotlina	SKCHVU025 Slanské vrchy	0	0
Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine	SKCHVU025 Slanské vrchy SKCHVU037 Ondavská rovina	0	0	0
Territorial sector No.8: MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec	0	0	0	0
Territorial sector No.9: MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland	0	0	0	0
Territorial sector No.10: MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria	SKCHVU014 Malé Karpaty, SKCHVU007 Dunajské luhy, SKCHVU016 Záhorské Pomoravie	SKCHVU029 Sysľovské polia	SKUEV0295 Biskupické luhy SKUEV0312 Devínske alúvium Moravy SKUEV0314 Morava	SKUEV0104 Homoľské Karpaty SKUEV0279 Šúr SKUEV0388 Vydrice

Territorial sector	Special Protected Area - direct contact	Special Protected Area in a corridor of approx. 1 000 m	Special Area of Conservation - direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
				SKUEV0089 Martinský les  SKUEV0269 Ostrovne lúčky
Territorial sector No.11: MI D4 and R1 Most pri Bratislave – EI R1 Sered'	SKCHVU023 Úľanská mokrad'	0	0	0
Territorial sector No.12: EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka	SKCHVU018 Nízke Tatry SKCHVU033 Veľká Fatra	0	SKUEV1303 Alúvium Hrona SKUEV0302 Ďumbierske Nízke Tatry SKUEV0198 Zvolen SKUEV0197 Salatín SKUEV0253 Rieka Váh SKUEV0164 Revúca	SKUEV0062 Príboj
Territorial sector No.13: MI D1 and R2 Chochoľná – EI R2 and R8 Brezolupy – Pravotice	0	0	0	0
Territorial sector No.14: Pravotice – EI R2 and R1 Žiar nad Hronom juh	0	0	0	SKUEV0128 Rokoš
Territorial sector No.15: EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany	0	SKCHVU022 Poľana	0	SKUEV0247 Rohy
Territorial sector No.16: Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany	SKCHVU003 Cerová vrchovina – Porimavie, SKCHVU027 Slovenský kras, SKCHVU009 Košická kotlina	0	SKUEV0398 Slaná SKUEV0352 Hrušovská lesostep SKUEV0343 Plešivské stráne	SKUEV0363 Ťahan  SKUEV0346 Pod Strážnym hrebeňom SKUEV0350 Brzotínske skaly SKUEV0353 Plešivská planina SKUEV0356 Horný vrch SKUEV0737 Palanta
Territorial sector No.17: MI D1 a R3 Hubová – Trstená – state border SR/Poland	SKCHVU050 Chočské vrchy	0	SKUEV0243 ORAVA SKUEV0253 Váh	0



Territorial sector	Special Protected Area - direct contact	Special Protected Area in a corridor of approx. 1 000 m	Special Area of Conservation - direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
Territorial sector No.18: MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie	0	0	SKUEV0382 Turiec a Blatnický potok SKUEV0147 Žarnovica	0
Territorial sector No.19: EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary	0	SKCHVU021 Poiplie	SKUEV0266 Skalka SKUEV0260 Mäsiarsky bok	SKUEV0257 Alúvium Ipľa
Territorial sector No.20: MI D1 and R4 Prešov západ – Svidník – state border SR/Poland	SKCHVU011 Laborecká vrchovina	SKCHVU025 Slanské vrchy	SKUEV0048 Dukla	0
Territorial sector No.21: MI D3 and R5 Svrčinovec - state border SR/Czech Republic	0	0	0	0
Territorial sector No.22: MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	0	0	0	0
Territorial sector No.23: MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)	SKCHVU007 Dunajské luhy	0	SKUEV0295 Biskupické luhy	0
Territorial sector No.24: EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	SKCHVU005 Dolné Považie SKCHVU021 Poiplie	0	SKUEV0257 Alúvium Ipľa SKUEV0365 Dálovský močiar	SKUEV0084 Zátoň SKUEV0261 Dedinská hora SKUEV0086 Krivé Hrabiny SKUEV0054 Cudenínsky močiar SKUEV0055 Ipeľské hony
Territorial sector No.25: EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy	SKCHVU031 Tribeč	0	0	SKUEV0589 Chynoriansky luh

Table 4 Review of conflicts of railway infrastructure constructions with Natura 2000 sites

Territorial sector	Special Protected Area - direct contact	Special protection area in approx. 1 000 m wide corridor	Special Area of Conservation - direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
Territorial sector No.1: Bratislava	SKCHVU016 Záhorské Pomoravie	SKCHVU007 Dunajské luhy	SKUEV0314 Morava SKUEV0312 Devínske alúvium Moravy	SKUEV1064 Bratislavské luhy
Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic	SKCHVU016 Záhorské Pomoravie		SKUEV0312 Devínske alúvium Moravy, SKUEV3013 Devínske jazero SKUEV0217 Ondriašov potok, SKUEV0218 Močiarka, SKUEV0117 Abrod,	SKUEV0121 Marhecké rybníky, SKUEV0167 Bezodné, SKUEV0502 Štokeravská vápenka, SKUEV0388 Vydrica
Territorial sector No.3: Púchov - Žilina	0	0	0	0
Territorial sector No.4: Žilina	0	SKCHVU013 Malá Fatra	SKUEV0221 Varínka	SKUEV0665 Strečnianske meandre Váhu
Territorial sector No.5: Žilina - Košice	SKCHVU053 Slovenský raj SKCHVU036 Volovské vrchy		SKUEV0309 Poprad	SKUEV0139 Gánovské slanská, SKUEV0708 Primovské skaly, SKUEV0782 Vydrnícka slatina, SKUEV0784 Mašianske sysľovisko SKUEV0328 Stredné Pohornádíe
Territorial sector No.6: Košice	0	0	0	0
Territorial sector No.7: Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine	0	0	0	0
Territorial sector No.8: Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	SKCHVU005 Dolné Považie, SKCHVU020 Parížske močiare	SKCHVU023 Úľanská mokrad'		SKUEV0097 Palárikovské lúky, SKUEV0095 Panské lúky, SKUEV 0184 Burdov, SKUEV0393 Dunaj,
Territorial sector No.9: Zvolen - Košice	SKCHVU021 Poíplie, SKCHVU003 Cerová vrchovina- Porimavie, SKCHVU027 Slovenský kras, SKCHVU 009 Košická kotlina	SKCHVU022 Poľana	SKUEV0398 Slaná	SKUEV0343 Plešivské stráne, SKUEV0346 Pod Strážnym hrebeňom, SKUEV0350 Brzotínske skaly, SKUEV0353 Plešivská planina, SKUEV0352 Hrušovská lesostep, SKUEV0356 Horný vrch, SKUEV0737 Palanta
Territorial sector No.10: Michalany - Bánovce n/O - Humenné - Medzilaborce	0	SKCHVU035 Vihorlatské vrchy	0	SKUEV0250 Krivoštianka, SKUEV0231 Brekovský Hradný vrch
Territorial sector No.11: Žilina – Čadca – state border SR/Czech Republic	0	0	0	0
Territorial sector No.12: Leopoldov	0	0	0	0

Territorial sector	Special Protected Area - direct contact	Special protection area in approx. 1 000 m wide corridor	Special Area of Conservation - direct contact	Special Area of Conservation in a corridor of approx. 1 000 m
Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno	0	SKCHVU012 Lehnice		SKUEV0017 Pri Orechovom rade, SKUEV0010 Komárňanské slanisko, SKUEV0099 Pavelské slanisko
Territorial sector No.14: Leopoldov - Nitra - Šurany	0	0	0	0

Note: The summary of subjects of the protection in affected Special Areas of Conservation and in Special Protection Areas is listed in the **Chapter 6. - Subjects of protection in affected Natura 2000 sites - summary table.**

## 5. Evaluation of the impact of SPRDI 2020 measures on affected sites and subjects of protection

The essence of the evaluation of measures was to identify the conflict of SPRDI measures with Natura 2000 sites and to determine the probable significance and impact on the subject of protection in affected areas. To make an educated guess of the significance level is up to the appropriate assessment at the EIA level. Almost all measures have passed through the EIA process, where impacts are evaluated in different variants and the most suitable alternative is recommended for the implementation. At the SEA level, impacts are assessed according to this variant. A part of projects has also passed through the phase of the appropriate assessment at the EIA level, concerning some projects, the process of an appropriate assessment is currently in a progress and within the rest of projects, it is in a process of a preparation. The results are fully respected and accepted.

The summary evaluation of SPRDI 2020 measures at the SEA level has been carried out considering the division into territorial sectors and transport modes.

Because of the known reasons, the integrity of Natura 2000 will be mostly affected by SPRDI measures, which directly require a land take, i.e. the construction of new sections of roads, railways, airports, intermodal terminals. Generally less impact can be expected concerning measures like upgrading and electrification of tracks, the significance of the impact depends on the technical solution, requirements for land, spatial design, necessary relocations as well as the organisation of the work. Technological ensuring of the interoperability does not imply impacts on Natura 2000 sites, however, the evaluation of specific technical solutions and possible direct impact should be conducted on the EIA level. Only the contact of routes with planned technology adjustments with Natura 2000 sites within the 1 000 m corridors has been evaluated at the SEA level.

*Note:*

*Affected Natura 2000 sites are listed in the tables below as SAC and SPA with direct impacts, as well as sites, which are located in a 1 000 m corridor of the route and which can be indirectly affected by activities. The intensity and scope of the impact on subjects of protection needs to be determined by an appropriate assessment at the EIA level.*

Measures of SPRDI 2020:

Road transport

1. Completion of motorway D1
2. North-south interconnection to Poland and Czech Republic
3. North-south interconnection in Eastern Slovakia
4. East - west communication axis in Central Slovakia
5. North - south communication axis in Central Slovakia, alternatives R3 and R3-R1-R3
6. Road network in Bratislava agglomeration
7. Completion of priority axis west-east of Slovakia
8. Development of the I. class road network and expressway network outside TEN-T

Railway transport

1. Upgrading of TEN-T network
2. Technological ensuring of interoperability
3. Electrification of major lines

Intermodal transport

## 1. Intermodal Transport Terminals

### Air transport

1. Upgrading, construction and maintenance of airport infrastructure within the TEN-T

### Inland waterway transport

1. Implementation of technical measures to remove barriers and resolving the navigability of the Danube river (r. km 1 880.260 - 1 862.000)

## 5.1 Road transport

### Measure: 1. Completion of motorway D1

Table 5 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
1	MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava	54	D1	Bratislava - Trnava, Triblavina interchange
		55	D1	Bratislava - Senec, extension to 6 lanes
		56	D1	Senec - Blatné, Blatné interchange
		57	D1	Blatné - Trnava, extension to 6 lanes
2	MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin	1	D1	Hričovské Podhradie - Lietavská Lúčka (phase 1 and phase 2)
		2	D1	Feeder Lietavská Lúčka - Žilina
		3	D1	Lietavská Lúčka - Višňové - Dubná Skala (phase 1 and phase 2)
3	MI D1 and R3 Martin – MI D1 and R3 Hubová	4	D1	Turany - Hubová
4	MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová	5	D1	Hubová - Ivachnová (phase 1 and phase 2)
5	MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ	25	D1	Feeder Spišská Nová Ves stage II
		58	D1	Studenec - Beharovce (completion of interchange)
		59	D1	Beharovce - Branisko, 2 <sup>nd</sup> profile (Branisko tunnel)
6	MI D1 and R4 Prešov západ – MI D1 and R2 Košické Olšany - Bidovce	6	D1	Prešov západ - Prešov juh
		7	D1	Budimír - Bidovce
7	Bidovce – Vyšné Nemecké – state border SR/Ukraine	22	D1	Bidovce - Dargov
		23	D1	Dargov - Pozdišovce
		24	D1	feeder Michalovce

Table 6 Evaluation of impacts in the Territorial sector No.1

MOTORWAY D1	<b>Territorial sector No.1: MI D1 and D2 Bratislava Pečňa – MI D1 and R1 Trnava</b>
Affected Natura 2000 sites	SKCHVU023 Úľanská mokraď - direct contact SKUEV0089 Martinský les - within the 1 000 m corridor
Character of collision	The body of the motorway D1 in the section between Senec and Trnava is already passing through the SKCHVU023 Úľanská mokraď, considered extension to 6 lanes will have a direct impact.
Assessment of impact on the subject	Impacts will not cause significant disturbance, because the motorway passes only through a marginal part of the SPA and it will not significantly disturb nesting areas or hunting biotopes of the most of the affected bird species. The way of life and flight activity of the majority of criteria species (except Galliformes) allows them to retain the

of protection	integrity and continuity of their hunting as well as nesting territories regardless of the presence of the motorway. The concerned motorway section is not considered an important element disturbing the integrity of this SPA.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	For the section of the D1 motorway Senec - Trnava - extension to 6 lanes, the Assessment of impact of the D1 motorway extension to 6 lanes and collectors in section Senec - Trnava on Special Protection Area Úľanská mokrad' (2009) has been elaborated to the extent of appropriate assessment. In other sections, the appropriate assessment is not required.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	No significant impact on the subject of protection has been identified, it is necessary to consistently implement all measures arising from the EIA conclusions. No further assessment is required.

Table 6 Evaluation of impacts in the Territorial sector No.2

Motorway D1	Territorial sector No.2: MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin
Affected Natura 2000 sites	SKUEV0256 Strážovské vrchy SKUEV0667 Slnčné skaly SKCHVU028 Strážovské vrchy SKUEV0252 Malá Fatra SKCHVU013 Malá Fatra
Character of collision	<p>In the section Hričovské Podhradie – Lietavská Lúčka the route of the D1 motorway is passing in a distance of approx. 400 m from the SKUEV0256 Strážovské vrchy and SKCHVU028 Strážovské vrchy. The route of D1 is running from the interchange in Hričovské Podhradie along a narrow valley of a nameless brook. Given to the limited possibilities of horizontal and vertical alignment corrections in the area, there are no alternative solutions. Feeder route is passing in a distance of about 100 m from the SKUEV0667 Slnčné skaly. Due to the cramped conditions of Rajecká dolina valley and strong urbanisation of the area is the feeder in the place of the contact with SAC designed in a single variant. Variant with less interference in that area is not realistic.</p> <p>In the section Lietavská Lúčka - Višňové – Dubná skala, the SKUEV0252 Malá Fatra is located in a distance of approx. 350 m from the interchange Dubná Skala and approx. 650 m from the eastern tunnel mouth. The border of SKCHVU013 Malá Fatra is situated in a distance of 145 m from the eastern mouth of the tunnel and 65 m from the western mouth of the tunnel, the route of D1 is crossing the protected area by the Višňové tunnel, there is a contact only in the area of the ventilation shaft and access roads to the shaft.</p> <p>When passing from Žilinská kotlina basin to Turčianska kotlina basin, the motorway D1 must pass through the Mala Fatra mountain range. Within the selection of the route, a so-called "valley" variant passing through a narrow valley of the Váh river between Fatranská and Lúčanská part of the Malá Fatra and a tunnel variant with 7,5 km long Višňové tunnel were considered. Concerning the nature conservation, the tunnel variant clearly represents a more acceptable solution.</p>
Assessment of impact on the subject of protection	<p>SKUEV0256 Strážovské vrchy</p> <p>The project will not interfere with habitats of Community importance in border of SAC, and interference is not expected either. Bridges and natural space over the tunnels allow conflict-free migration of species of Community importance (bear, wolf lynx). Because of the construction of the motorway fencing conflicts with cars are not anticipated. Species of Community importance like the <i>Greater mouse-eared bat</i>, <i>Lesser mouse-eared bat</i>, <i>Geoffroy's bat</i>, <i>Bechstein's bat</i>, <i>Western barbastelle</i>, <i>Horseshoe bat</i> can be particularly endangered by direct killings when crossing the motorway. The migration across the motorway corridor could be dangerous for the European otter. Territory of the otter spans tens of km along waterways. The prerequisites for prevention are technically appropriate underpasses along watercourses. The construction will not interfere directly into the habitat of otter; the impact will be non-significant.</p> <p>SKCHVU028 Strážovské vrchy</p> <p>The route does not interfere with nesting habitats of species and due to sufficient hunting territories the food-supply will not be affected either. The risk of flight over conflicts and noise impacts close to the motorway can be assessed as non-significant.</p> <p>SKUEV0667 Slnčné skaly</p> <p>Negative impacts on habitats during construction or operation are not likely and no negative impact is expected on wintering grounds of bats. The population of bats is affected by the mortality when flying over roads, during operation and bats species can be also affected by noise and lighting. The I. class road I/64 is currently passing through the assessed corridor. The feeder will take some existing traffic volume from the road I/64, impacts of</p>

<b>Motorway D1</b>	<b>Territorial sector No.2: MI D1 and D3 Hričovské Podhradie - MI D1 and R3 Martin</b>
	<p>location of the feeder are not considered significant.</p> <p>SKUEV0252 Malá Fatra</p> <p>Impacts on large animals (bear, lynx, and wolf) will not be negative, because by diverting traffic to the tunnel the traffic intensity on the parallel road I/18 will be reduced - it is crossed by the busiest terrestrial fauna migration corridor that connects the units Lúčanská and Krivánska Fatra. Its passability is impeded by the frequency of motor vehicles and trains. Habitats of protected plants, invertebrates and amphibians will not be affected, the impact will be minimum.</p> <p>SKCHVU013 Malá Fatra</p> <p>Impacts during construction will be felt mainly due to the noise of construction machinery and their movement on the site. Effects of noise from tunnel mouths as well as from access roads to the ventilation shaft of the Višňové tunnel, including ventilation shaft, will show up during the operation. Concentrations of pollutants from ventilation shaft will not be exceeded even in the immediate vicinity of the ventilation shaft. Concerning the scale of the protected area, only minor impact on the SPA is expected.</p>
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	According to the information from NDS, an appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive is in progress, potential impacts of the construction and operation on the subject of protection are assessed as less significant and preliminary results are not indicating significant impacts as well.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Follow the results of the currently ongoing assessment.

Table 7 Evaluation of impacts in the Territorial sector No.3

<b>MOTORWAY D1</b>	<b>Territorial sector No.3: MI D1 and R3 Martin – MI D1 and R3 Hubová</b>
Affected Natura 2000 sites	<p>SKUEV0238 Veľká Fatra - direct contact</p> <p>SKUEV0252 Malá Fatra - direct contact</p> <p>SKUEV0253 Váh – direct contact</p> <p>SKUEV0663 Šíp</p> <p>SKCHVU013 Malá Fatra - direct contact</p> <p>SKUEV0254 Močiar</p> <p>SKUEV0243 Orava</p>
Character of collision	<p>The route passes through SKUEV0238 Veľká Fatra, SKUEV0252 Malá Fatra, SKUEV0253 Váh, and SKCHVU013 Malá Fatra, with planned significant territorial impacts.</p> <p>In the corridor of approx. 1 000 m, there are SKUEV0663 Šíp, SKUEV0254 Močiar and SKUEV0243 Orava.</p>
Assessment of impact on the subject of protection	<p>Assessment (expert assessment) was conducted by Dr. Petr Roth in July 2012.</p> <p>In 53 out of the 56 subjects of protection a slightly negative to zero impact has been identified. Concerning three subject of protection - European habitat type 3220 - Alpine rivers and the herbaceous vegetation along their banks, brown bear and Eurasian lynx - it was stated that the plan in its actual form has a significant impact on these subjects. In the habitat of Community importance 3220, the project charter will lead to destruction of one of the most valuable alluviums below the mouth of the potok Komjatná brook, with location of a bridge abutment with related bank reinforcement.</p> <p>Additionally proposed measures should reduce negative impacts on migration passability for the brown bear and lynx below the level of significance. However, the impact on the demonstrably inhabited core area of the of both species on the northern slopes of Kopa, where it is concerning an areal take of a habitat with area of approx. 10 ha on the one hand and another area affected by noise and lighting pollution caused by the motorway on the other hand. At that time, these impacts were classified as significantly negative.</p> <p>On the basis of mentioned facts, some of the proposed measures have been redesigned and other measures for the mitigation of impacts have been proposed.</p>

	<p>Consequently, the assessment of the effects of mitigation measures on the significantly affected subjects of protection has been conducted and it concluded that in terms of the interconnection of Malá Fatra, Veľká Fatra and the Šíp massif, the key elements are represented by ecoducts, providing the interconnection of important occurrence areas of large carnivores as well as the passability of the existing road I/18. Based on the assessment it was stated that after incorporating all mitigation measures, the project will not have a significant negative impact. The section is a part of the motorway D1, which represents the major transport corridor included in the core TEN-T network. The corridor is running in a Váh river valley, from both sites surrounded by massifs of Malá and Veľká Fatra, most part of which is included in the Natura 2000 sites. The route of D1 runs through the Natura 2000 sites in the most narrow place possible. There is no alternative to avoid the Natura 2000 sites within the northern interconnection of the Western and Eastern Slovakia in the corridor of D1.</p> <p>The considered alternatives of the section included a surface variant with issued building permit and a tunnel variant (the Korbefka tunnel). Neither of variants can avoid impacts on the NATURA 2000 sites. Impacts on the Natura 2000 sites seem to be less intense within the tunnel variant, however there are other impacts, of which the most important one is the threat to the underground water supply resources with the capacity of approx. 100 litres per second. In this context, the competent State water authority issued a negative opinion on the implementation of the Korbefka tunnel within the EIA process.</p>
Impact level	-2+
Status of the assessment according to the Art. 6(3) and 6(4)	<p>The planning permission for the so-called valley variant of the motorway came into force in March 2008, the building permit in May 2009. Non-governmental organisations have questioned the correctness of the assessment of the construction impact on Natura 2000 sites.</p> <p>In 2011, the Ministry, through NDS has provided an additional assessment (expert assessment) of the issue in fact of the project under construction and of the impact of future complete project on subjects of the protection of Natura 2000 sites. This assessment was conducted by Dr. Petr Roth in July 2012.</p> <p>On the basis of mentioned facts, some of the proposed measures have been redesigned and other measures for the mitigation of impacts on the Natura 2000 sites have been proposed in a following set of measures:</p> <ul style="list-style-type: none"> <li>• Ecoduct in km 0.224 04 of D1 motorway and in km 0,619 04 of road I/18, objects 216-01 a 216-02</li> <li>• New bridge on the D1 motorway in km 0.500 00</li> <li>• Extension of the bridge 202-00 „Bridge on D1 over PC and bio-corridor in km 1.15“</li> <li>• New ecoduct in km 1.500 00</li> <li>• Ecoduct in km 3.775 00, shift of the object 215-00 to a new location</li> <li>• Extension of the bridge 206-00 „Bridge Malá Fatra“</li> <li>• New barrier against noise and lightening in km 4.552 - 6.552 on the right side</li> <li>• Landscaping under the bridge 208-10</li> <li>• New ecoduct in km 7.25</li> <li>• Change of the original bridge 213-00 on the potok Komjatná brook</li> <li>• Cancellation of adjustment of the potok Komjatná brook</li> <li>• Change in adjustment of the Váh river banks</li> <li>• Measures against noise and lightening for animals</li> <li>• Planting of guiding greenery on ecoducts and on the edge of the area under bridges</li> <li>• Reinforced fencing with treatment against digging under</li> <li>• Electrical installations on fence from the beginning of the section to the bridge 206-00</li> <li>• Reduction of the Suchý potok brook adjustment in km 3.45-4.0</li> <li>• Guards against birds and bats</li> <li>• Removal of the bridge near intersection Turany, object 201-00</li> <li>• Cancellation of the auxiliary construction yard at the Turany interchange</li> <li>• Cancellation of the main construction yard at the confluence of the Váh and Orava river, objects 020-00 a 030-00</li> <li>• Increased measures for the protection of the Rojkov peatbog</li> <li>• Fencing of the temporary land takes in sensitive areas</li> <li>• Environmental supervision on the construction site</li> <li>• Monitoring of the effects of construction on the environment, including large predators.</li> </ul> <p>Consequently, an assessment of the effects of mitigation measures on significantly affected sites has been performed (P. Roth et al.: Assessment of additional technical measures on the mitigation of impact of D1 motorway on the Natura 2000 sites, 10/2012).</p> <p>The evaluation concluded that in terms of connection of Malá Fatra, Veľká Fatra and Šíp, objects 216-01, 216-02, 216-04, and 216-05 are of key importance. These ecoducts provide a connection of important areas with occurrence of large predators and at the same time they solve the passability of the existing road I/18.</p> <p>Based on the evaluation it was concluded that after the inclusion of all mitigating measures the project will not adversely affect the integrity of the SAC Veľká Fatra (SKUEV0238), SAC Malá Fatra (SKUEV0252), SAC Váh (SKUEV0253) or SAC Šíp (SKUEV0663).</p>
Recommended further	Due to the demonstration that the project after the implementation of mitigation measures will not have a



actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	<p>significant impact on the Natura 2000 sites, further steps according to the Methodology are not necessary.</p> <p>In the next phases of the project preparation it will be necessary to further elaborate all of the proposed mitigating measures in cooperation with experts for the specific field.</p>
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Table 8 Evaluation of impacts in the Territorial sector No.4

<b>Motorway D1</b>	<b>Territorial sector No.4: MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová</b>
Affected Natura 2000 sites	SKUEV0253 Váh SKUEV0305 Choč SKUEV0238 Veľká Fatra SKCHVU050 Chočské vrchy SKCHVU033 Veľká Fatra
Character of collision	<p>The D1 motorway section from Hubová to Ivachnová is passing in difficult geomorphologic conditions, characterised by a narrow valley of the Váh river bordered by mountain massifs of Veľká Fatra and Chočské vrchy. Meandering flow between these massifs requires bridges to pass across it. The D1 motorway is then running through the northern bypass of Ružomberok. Directly affected areas of Natura 2000 sites will include SAC Váh, four more (SAC Choč, SAC Fatra, SPA Chočské vrchy and SPA Veľká Fatra) will be affected indirectly. An alternative solution of the shift of the intensive transit traffic in an east - west relation through the city of Ružomberok is not possible, given the compact built-up area of the city in a narrow spatial corridor. Heading from Ružomberok, D1 must cross the Váh river again in order to connect with already built section of the D1 motorway ending near the Ivachnová village. There is no possible alternative to avoid the SAC Váh, as it spans along the Váh river valley from Ivachnová to Šútovo, in a total length of approx. 27 kilometres.</p>
Assessment of impact on the subject of protection	<p>Impacts on the Natura 2000 sites are assessed as less significant. The route will have slightly negative impact on the integrity of the SAC Váh, into which it will directly interfere twice, resulting in its permanent fragmentation. Integrity of the Natura 2000 sites will be slightly negatively affected.</p> <p>The cumulative impact of the construction of D1 on the SAC can be expected in the meander of the Váh river between Hubová and Hrboltová, where D1 crosses the river twice in approx. 1 km section (together with section Turany - Hubová) and the third crossing represents a potential connection of the R3 expressway. As it was noted above, there is no alternative of passing through this morphologically difficult territory within the given section. Besides the D1 motorway, there is also the road I/18 and the railway line Žilina - Košice in this territory. Among other projects, there are known location of 14 profiles of small hydroelectric plants within the SAC Váh between Kraľovany and Ivachnová.</p>
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	<p>In 2008, an assessment of the impacts on the Natura 2000 sites has been conducted in connection with the localisation of bridges in the cadastre area Hubová and Hrboltová (object 201) and Lisková and Ivachnová (object 216). According to the Methodological Guidance on the Provisions of articles 6(3) and 6(4), a stage of screening has been performed, which included the Screening Matrix as well as the Finding of No Significant Effects Matrix. The assessment was conducted by experts from the State Nature Conservancy of the Slovak Republic.</p> <p>Within the appropriate assessment carried out in 2013, it was stated that the project would not have a significant impact on Natura 2000 sites.</p>
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Based on unidentified significant effects, the assessment can be considered completed.

Table 9 Evaluation of impacts in the Territorial sector No.5

<b>Motorway D1</b>	<b>Territorial sector No.5: MI D1 and I/18 Ivachnová – MI D1 and R4 Prešov západ</b>
Affected Natura 2000 sites	SKUEV0109 Rajtopíky
Character of collision	No Natura 2000 sites are present on the route of the feeder Spišská Nová Ves or in the location of the Studenec - Behárovce interchange. In the 1 000 m corridor of the section Behárovce - Branisko, there is SKUEV0109 Rajtopíky, no direct interference, the road is running under the ground. Alternative solution of the second tunnel tube of the Branisko tunnel is not possible and concerning unlikely impacts, it not even required.
Assessment of impact on the subject of protection	Concerning the construction works in the underground and on tunnel mouths outside the territory of the SAC, there will be no impact on habitats or plant species that are subjects to protection. Large carnivores like wolf and lynx, which are also subject to the protection, can be occasionally disturbed during the construction, other impacts are not expected.
Impact level	0
Status of the assessment according to the Art. 6(3) and 6(4)	The impact of the proposed activity on the Natura 2000 sites has been assessed in an independent study, which is a part of the EIA documents. Based on this study, it can be concluded that for the assessed project charter of the "D1 motorway Behárovce - Branisko", no significant negative impact on the integrity and subjects of the protection within the SAC has been identified.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	In terms of assessment of the impact on the Natura 2000 sites it is possible to state that there will be no new impacts identified in relation to the planned activity and further assessment is not necessary.

Table 10 Evaluation of impacts in the Territorial sector No.6

<b>Motorway D1</b>	<b>Territorial sector No.6: MI D1 and R4 Prešov západ – MI D1 and R2 Košická Oľšany - Bidovce</b>
Affected Natura 2000 sites	SKCHVU009 Košická kotlina SKCHVU025 Slanské vrchy
Character of collision	There are no Natura 2000 sites in the section Prešov západ - Prešov juh.  In the section Budimír - Bidovce, the protection zone of the D1 motorway is locally interfering with outskirts of the SPA Košická kotlina. The route of D1 does not interfere with the SPA Slanské vrchy at all, as the section D1 Budimír - Bidovce ends about 200 m before the SPA border.
Assessment of impact on the subject of protection	In June 2011, the report on the "Impact assessment of the project on SPA Košická kotlina and Slanské vrchy" has been elaborated and it which concluded that it is not expected that the planned construction of the D1 motorway section in Budimír - Bidovce, would have a significant direct negative impact on the favourable conservation status of protected species in neighbouring protected SPA Slanské vrchy and Košická kotlina. However, at the same time it notes that the reducing of the area of hunting habitats and the increase in the potential collisions with the motor vehicles during the construction and operation of motorways can cause some indirect negative impact on bird populations of listed SPA.  Two alternatives were assessed within the EIA, current variant is in compliance with the selection of the optimum variant. Finding an alternative solution would be conceivable in case that the assessment of the cumulative impact of the D1 section Bidovce - Dargov shows a significant impact on the SPA.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	According to the information from NDS, the appropriate assessment under Art. 6(3) and 6(4) of the Habitats Directive is currently in progress.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Follow the results of the currently ongoing assessment.

Table 11 Evaluation of impacts in the Territorial sector No.7

<b>Motorway D1</b>	<b>Territorial sector No.7: Bidovce – Vyšné Nemecké – state border SR/Ukraine</b>
Affected Natura 2000 sites	SKCHVU025 Slanské vrchy SKCHVU037 Ondavská rovina
Character of collision	The motorway in the section Bidovce - Dargov passes through the SPA Slanské vrchy, in the section Dargov - Pozdišovce it interferes with SPA Ondavská rovina. Concerning the vastness of the SPA, there is no realistic variant, which could be avoid the SPA, part of the route is passing through a tunnel, thus reducing negative impacts on subjects of the protection.
Assessment of impact on the subject of protection	There will be a direct loss of bird species habitats and by the reduction of the area of hunting habitats and by the increased potential of collisions with motor vehicles during the construction and operation of the motorway, certain indirect negative impact on bird populations can be expected.
Impact level	-1?
Status of the assessment according to the Art. 6(3) and 6(4)	The final EIA report from 1998 was issued before the Natura 2000 implementation. Besides the identification of locations within the EIA process, the impacts on Natura 2000 sites have not been considered in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been carried out. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the assessment of impacts of activities on the environment, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of the Directive on habitats.

### *Summary evaluation of Measure 1 Completion of motorway D1*

Measure 1 Completion of motorway D1 represents a significant impact on the natural landscape. The corridor of the motorway is running in a new route, the construction therefore implies a direct take of habitats, increased fragmentation of the land, emergence of new migration barriers. Cumulation with concurrent roads represents the strengthening of the barrier and fragmentation effect. The concurrence with railway lines has a cumulative effect as well, because the railway network is connecting the core settlement areas as well as the motorway network.

In terms of impacts of individual projects included in the measure 1 Completion of motorway D1 on the Natura 2000 sites it is possible to state that the most significant impacts have been located in sections in the Northwestern Slovakia, passing through the mountains of Malá Fatra and Veľká Fatra through the Váh river valley. Concerning the geomorphologic conditions in this region there is no other option to route the motorway. Tunnel sections constitute lesser interference and impact on the subject of protection as the surface route, which through lots of technical interventions - bridges and elevated motorways in cuttings and embankments, is directly destructing habitats, fragmenting habitats of species and affecting the migration passability of the land. The impact will be mitigated by the implementation of mitigating measures, however it will still not be negligible. In the section Višňové – Dubná skala, the route is passing through the SPA Malá Fatra through a long tunnel, the impacts on subjects of the protection in affected Natura 2000 sites are significantly reduced. The most complicated sections with the assumption of the most significant impacts are sections Turany - Hubová, with preferred surface variant, which is directly interfering with several Natura 2000 sites (SAC Veľká Fatra, SAC Malá Fatra, SAC Váh and SAC Malá Fatra) and Hubová - Ivachnová (SAC Váh). The motorway in the Eastern Slovakia is crossing three SPA, where it is necessary to evaluate the expected impact on subjects of the protection in terms of objectives of the protection of these sites pursuant to the Art. 6(3) and 6(4) of the Habitats Directive.

The extension of the motorway D1 to 6-lanes layout between Bratislava and Trnava will not have a significant impact on the Natura 2000 sites.

### *Measure 2. North-south interconnection to Poland and Czech Republic*

Table 12 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
9	MI D3 and R5 Svrčinovec - Skalité - state border SR/Poland	12	D3	Svrčinovec – Skalité, half profile (phase 1 and phase 2)
21	MI D3 and R5 Svrčinovec - state border SR/Czech Republic	16	R5	Svrčinovec - state border SR/Czech Republic
8	MI D3 and D1 Hričovské Podhradie - MI D3 and R5 Svrčinovec	11	D3	Čadca Bukov - Svrčinovec
		10	D3	Kysucké Nové Mesto - Oščadnica
		9	D3	Žilina Brodno - Kysucké Nové Mesto
		8	D3	Žilina Strážov - Žilina Brodno (phase 1 and phase 2)

Note:

- Projects included in the territorial sector No.8 (MI D3 and D1 Hričovské Podhradie – MI D3 and R5 Svrčinovec), No.9 (MI D3 and R5 Svrčinovec – Skalité – state border SR/Poland) and No.21 (MI D3 and R5 Svrčinovec – state border SR/Czech Republic) do not interfere with the Natura 2000 sites.

### *Summary evaluation of Measure 2. North-south interconnection to Poland and Czech Republic*

Measure 2. North-south interconnection to Poland and Czech Republic leads through a territory with no Natura 2000 sites. It is concerning the whole motorway D3 and expressway R5 in the region of Kysuce.

### *Measure 3. North-south interconnection in Eastern Slovakia*

Table 13 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
20	MI D1 and R4 Prešov západ – Svidník – state border SR/Poland	46	R4	state border Poland/SR - Hunkovce
		47	R4	Hunkovce - Ladomírová
		48	R4	Svidník - Lomné
		49	R4	Lomné - Hanušovce nad Topľou
		50	R4	Hanušovce nad Topľou – Kapušany – Nižná Šebastová
		45	R4	Prešov northern bypass
6	MI D1 and R4 Prešov západ – MI D1 and R2 Košické Olšany - Bidovce	6	D1	Prešov západ - Prešov juh
		7	D1	Budimír - Bidovce

Note:

- Projects in the territorial sector No.6 have been evaluated within the measure 1 - Completion of motorway D1

Table 14 Evaluation of impacts in the Territorial sector No.20

<b>Expressway R4</b>	<b>Territorial sector No.20: MI D1 and R4 Prešov západ – Svidník – state border SR/Poland</b>
Affected Natura 2000 sites	SKUEV0048 Dukla SKCHVU011 Laborecká vrchovina SKCHVU025 Slanské vrchy
Character of collision	In the section state border Poland/SR - Hunkovce and in the section Hunkovce - Ladomirová, the route is interfering with Natura 2000 sites. In a peripheral part it marginally interferes with the SAC Dukla, crossing the territory of the SPA Laborecká vrchovina and the corridor of the route is running in a contact with the SPA Slanské vrchy, with no direct contact expected. There are no Natura 2000 sites in other sections within the territorial sector.
Assessment of impact on the subject of protection	Given the marginal interference with the SKUEV008 Dukla, no significant negative impacts on habitats and species are expected. The route has a more significant impact on subjects of the protection in the SPA Laborecká vrchovina, the level of impact shall be determined by an appropriate assessment. Multiple alternative variants of the most favourable route are being considered within the EIA process in terms of the impact on the Natura 2000 sites, the resulting variant has not been definitely determined.
Impact level	-1?
Status of the assessment according to the Art. 6(3) and 6(4)	The appropriate assessment has not been conducted.  In the section state border Poland/SR - Hunkovce, there is the EIA process in progress (preliminary environmental study 2011), in the section Hunkovce - Ladomirová, the final opinion has been issued in a time when the Natura 2000 network (2002) has not been established.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the assessment of impacts of activities on the environment, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of the Directive on habitats.

### Summary evaluation of Measure 3. North-south interconnection in Eastern Slovakia.

Measure 3. North-south interconnection in Eastern Slovakia does not belong to sections with expected significant negative impacts on the Nature 2000 sites. The routes are mostly avoiding the Natura 2000 sites in the region. The corridor of the interconnection consists of sections of the expressway R4 from the state border Poland/SR to Prešov and of the motorway D1 Prešov - Bidovce. A contact with Natura 2000 sites has been considered only in the border section, where the route of R4 interferes with the SAC Dukla and the SPA Laborecká vrchovina. Given the marginal interference with the SAC Dukla, significant impacts are not expected, impacts on the SPA Laborecká vrchovina need to be evaluated in the process of the appropriate assessment of impacts on the Natura 2000 sites in terms of the objectives of protection of these sites pursuant to the Art. 6(3) and 6(4) of Habitats Directive and the selection of the final variant of the route and measures to mitigate impacts need to be adjusted according to conclusions of this assessment.

### Measure 4. East - west communication axis in Central Slovakia

Table 15 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
13	MI D1 and R2 Chochoľná – EI R2 and R8 Brezolupy – Pravotice	28	R2	D1 interchange - Mníchova Lehota
		13	R2	Mníchova Lehota - Ruskovce
14	Pravotice – EI R2 and R1 Žiar nad Hronom juh	29	R2	Pravotice - Dolné Vestenice
		30	R2	Dolné Vestenice - Nováky
		31	R2	Nováky - Prievidza - Žiar nad Hronom
15	EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec –	32	R2	Zvolen západ - Zvolen východ

Territorial sector		Project		
Number	Localisation	Number	Road	Section
16	Ožďany – EI R2 and R4 Košice juh – MI D1 and R2 Košické Olšany	33	R2	Kriváň - Lovinobaňa
		34	R2	Lovinobaňa - Ožďany
		35	R2	Ožďany - Zacharovce
		36	R2	Zacharovce - Bátka
		37	R2	Bátka - Figa
		38	R2	Tornaľa - Gombasek
		67	R2	Gombasek - Rožňava
		68	R2	Jablonov nad Turňou - Včeláre
		69	R2	Včeláre - Košice, Šaca
		14	R2	Rožňava - Jablonov nad Turňou (Soroška)
		15	R2	Košice, Šaca - Košické Olšany

Note:

- Projects situated in territorial sectors No.13 (MI D1 and R2 Chocholná – EI R2 and R8 Brezolupy – Pravotice) and No.15 (EI R2 and R1 Sliač – Zvolen – EI R2 and R7 Lučenec – Ožďany) are not in a collision with the Natura 2000 sites.

Table 16 Evaluation of impacts in the Territorial sector No.14

Expressway R2	Territorial sector No.14: Pravotice – EI R2 and R1 Žiar nad Hronom juh
Affected Natura 2000 sites	SKUEV0128 Rokoš
Character of collision	In the section Pravotice - Dolné Vestenice, the route is getting close to the southernmost spur of the SKUEV0128 Rokoš.
Assessment of impact on the subject of protection	Direct impact and physical destruction of habitats is not relevant. Only indirect impact on some species, which are subject to protection, is expected. Bats can be threatened by the collision with cars in the corridor of the road while hunting insects, large mammals (bear, lynx) can get into a collision with cars while passing across the linear barrier. Alternative solution is not necessary concerning the presumed indirect impacts on subjects of the protection in the SKUEV Rokoš.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	The appropriate assessment has not been conducted, the final EIA opinion was issued in 2005, zoning and planning decision was issued in 2013.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the next stages of investment preparation, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of the Directive on habitats.

Table 17 Evaluation of impacts in the Territorial sector No.16

Expressway R2	Territorial sector No.16: Ožďany – El R2 and R4 Košice juh – MI D1 and R2 Košické Oľšany
Affected Natura 2000 sites	<p>SKCHVU022 Poľana</p> <p>SKCHVU003 Cerová vrchovina – Porimavie - direct impact</p> <p>SKCHVU027 Slovenský kras - direct impact</p> <p>SKCHVU009 Košická kotlina - direct impact</p> <p>SKUEV0247 Rohy</p> <p>SKUEV0398 Slaná - direct impact</p> <p>SKUEV0343 Plešivské stráne - direct impact</p> <p>SKUEV0363 Ťahan</p> <p>SKUEV0346 Pod Strážnym hrebeňom</p> <p>SKUEV0350 Brzotínske skaly</p> <p>SKUEV0353 Plešivská planina</p> <p>SKUEV0352 Hrušovská lesostep</p> <p>SKUEV0356 Horný vrch</p> <p>SKUEV0737 Palanta</p>
Character of collision	<p>In the section Zvolen - Ožďany, the route is running in a vicinity of the SPA Poľana and the SAC Rohy.</p> <p>In the section Ožďany - Zacharovce - Bátka - Figa - Gombasek, the route runs from Rimavská Sobota almost to Figa through the SPA Cerová vrchovina - Porimavie. In the section Bátka - Figa západ, the route is getting to the vicinity of the SAC Ťahan. In the section R2 Gombasek - Rožňava, the expressway R2 runs through the SPA Slovenský kras and when crossing river it interferes with the SAC Slaná. From Rožňava to Lipovník, the route of R2 runs with no conflict, from Lipovník to Jablonov nad Turňou it crosses the Slovenský kras mountains again. The route is directly interfering with the SPA Slovenský kras in a distance of 470 meters, where the western mouth of the Soroška tunnel is located. In the Hrušov cadastre, it passes close to the SAC Hrušovská lesostep without a direct contact.</p> <p>The section of R2 Jablonov nad Turňou – Včeláre runs in a vicinity of the SPA Slovenský kras. In section Včeláre – Moldava nad Bodvou, the route runs in the cadastre of Turňa nad Bodvou, in a vicinity of the special protection area SPA Slovenský kras and the special area of conservation SAC Horný vrch. The route of R2 from Šaca to Košické Oľšany near the village Haniska interferes with the northern tip of SPA Košická kotlina.</p> <p>In some sections, the corridor of the route runs parallel to the railway corridor, what leads to the cumulation of negative impacts of the transport infrastructure in sections with mountain passes in the Slovenský kras. Expressway R2 will take over traffic flows from the road I/50, which passes across the entire affected area SPA Slovenský kras and poses a threat to criteria species of birds. Reducing the traffic load on the mountain pass Soroška along the original road I/50 and redirecting traffic to R2, which is passing crossing this territory through a tunnel, will significantly reduce the negative impact of noise, emissions and light disturbance on the SPA Slovenský kras.</p>
Assessment of impact on the subject of protection	<p>Affected will be habitats and species of the SAC Slaná, where the route crosses the river multiple times and the contact can not be avoided. In the SAC Hrušovská lesostep, SAC Horný vrch and SAC Plešivské stráne, the impacts on the conservation objectives are expected to be slight, specific habitats will not be significantly affected, species tied to specific habitats (<i>Rosalia longicorn</i> - <i>Rosalia alpina</i>, <i>Lucanus cervus</i>, Jersey Tiger - <i>Euplagia quadripunctaria</i>) will not be affected, bat species may be affected partly, when crossing the motorway. Migration of large mammals (lynx, wolf) remains preserved, since there is a tunnel in the section of the expressway, allowing conflict-free crossing of animals.</p> <p>SPA Slovenský kras is spanning from Gemerská Hôrka to Moldava nad Bodvou, while its southern border runs along the border with Hungary. Alternative route of R2 expressway outside the SPA does not exist. Crossing the mountain range Horný vrch through a tunnel was designed in two alternatives that differ by the localisation of the western portal. Effects of both alternatives on the Natura 2000 sites can be considered identical. Impacts on the SPA will cause a secondary reduction of the area of hunting habitats, systematic distraction of bird species and later the increased rate of collisions with motor vehicles during the operation of the expressway. Places of conflicts can be partly mitigated by the construction of walls and barriers against low-flying birds over the road. During the construction period, the dust pollution from construction works and transport mechanisms will pose a short-term source of the air pollution. This impact will be localised only in the area of the construction site.</p> <p>The route of R2 Šaca - Košické Oľšany, together with the previous section Včeláre - Šaca is bypassing the U.S.Steel company from the north and then crosses the SPA in the narrowest possible location. Shifting of the</p>



	route to north is not possible due to the location of Košice airport. The southern bypass of U.S.Steel would mean greater interference with the SPA. Within the EIA process, two alternatives passing through the SPA were assessed. A variant was recommended, which runs at the edge of the Haništiansky forest, which is the habitat of several species of birds and thus it does not cause its significant fragmentation.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Follow the results of the assessment performed within the Feasibility studies.

#### Summary evaluation of Measure 4. East - west communication axis in Central Slovakia

Measure 4. East - west communication axis in Central Slovakia in the western part of the route is not interfering with the Natura 2000 sites. The interference is expected only in the section Pravotice - Dolné Vestenice, where the route of R2 is getting close to the southernmost spur of the SAC Rokoš. More significant impacts and interference with the Natura 2000 sites are expected in the central section of R2 from Ožďany to Košické Olšany, where the route is passing through the territory with a high concentration of special areas of conservation and special protected areas. Interference with some areas is only marginal and the impact is expected to be negligible. (SPA Poľana, SPA Cerová vrchovina – Porimavie), other areas are crossed several times (SAC Slaná, SPA Slovenský kras), with less significant impacts expected. The eastern part of the route is marginally interfering with the SPA Košická kotlina. The most complicated section is the route passing through the Slovenský kras mountains, with required construction of the Soroška tunnel and geomorphologic conditions do not allow to completely avoid impacts on the Natura 2000 sites. The level of impacts shall be evaluated within the process of the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6(3) and 6(4) of the Directive on habitats in sections with an indicated contact and probable impact.

#### Measure 5. North - south communication axis in Central Slovakia, alternatives R3 and R3-R1-R3

Table 18 Projects included in the measure, alternative R3

Territorial sector		Project		
Number	Localisation	Number	Road	Section
17	MI D1 a R3 Hubová – Trstená – state border SR/Poland	76	R3	Tvrdošín - Nižná
		39	R3	Nižná - Dlhá nad Oravou
		40	R3	Dlhá nad Oravou - Sedliacka Dubová
		41	R3	Oravský Podzámok - Dolný Kubín
		70	R3	Dolný Kubín - D1 interchange Hubová
3	MI D1 and R3 Martin – MI D1 and R3 Hubová (concurrency)	4	D1	Turany - Hubová
18	MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie	42	R3	Martin - Rakovo
		43	R3	Rakovo - Horná Štubňa
		44	R3	Horná Štubňa - Šášovské Podhradie
19	EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary	71	R3	Zvolen - Šahy



## Note:

- Territorial sector No.3 (MI D1 and R3 Martin – MI D1 and R3 Hubová) is evaluated in the measure 1 - Completion of motorway D1

Table 19 Projects included in the measure, alternative R3-R1-R3

Territorial sector		Project		
Number	Localisation	Number	Road	Section
17	MI D1 a R3 Hubová – Trstená – state border SR/Poland	76	R3	Tvrdošín - Nižná
		39	R3	Nižná - Dlhá nad Oravou
		40	R3	Dlhá nad Oravou - Sedliacka Dubová
		41	R3	Oravský Podzámok - Dolný Kubín
		70	R3	Dolný Kubín - D1 interchange Hubová
4	MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová (concurrency to MI D1 and R1 Likavka)	5	D1	Hubová - Ivachnová (phase 1 and phase 2)
12	EI R1 and R2 Sliač – Banská Bystrica – MI D1 and R1 Likavka	64	R1	Banská Bystrica - Slovenská Ľupča
		65	R1	Slovenská Ľupča - Korytnica
		66	R1	Korytnica - Ružomberok
19	EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary	71	R3	Zvolen - Šahy

## Note:

- Territorial sector No.4 ( MI D1 and R3 Hubová – MI D1 and I/18 Ivachnová) is evaluated in the measure 1 - Completion of motorway D1

Table 20 Evaluation of impacts in the Territorial sector No.17

Expressway R3	Territorial sector No.17: MI D1 a R3 Hubová – Trstená – state border SR/Poland
Affected Natura 2000 sites	SKCHVU050 Choč SKUEV0243 Orava SKUEV0253 Váh
Character of collision	In the place of connection with the D1, the route of R3 is in contact with the SAC Váh. The route is passing through the territory in the section from Jasenová through the SPA Choč, along the Orava river, there are several crossings or contacts with the SAC Orava with an impact on riparian and water habitats.
Assessment of impact on the subject of protection	The subjects of protection in the SAC Orava are the water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation (3260) and species of amphibians, fish, invertebrates and mammals. Construction is expected to directly impact a part of habitats, affecting conditions for populations of the species for which the area is declared (otter - a threat in a form of collisions with cars, reduction of hatching locations of amphibians and the potential impact on fish habitats, especially during the construction (turbidity, adjusting spawning grounds). Impacts on the SPA Choč will cause a secondary reduction of the area of hunting habitats, systematic distraction of bird species and later the increased rate of collisions with motor vehicles during the operation of the expressway. Concerning the geomorphologic conditions (the Orava river valley), there is no possible variant solution that would exclude impacts on the Natura 2000 sites. In the Orava river valley, there is a strong concentration of anthropogenic activities - settlements, roads, railways, that have a cumulative effect on the SAC Orava. In the area of the Hubová interchange, there is the cumulation of negative impacts of the D1, R3 and of the railway line on the SAC Váh.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	Besides the identification of locations within the EIA process, the impacts on Natura 2000 sites have not been considered in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been carried out. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Follow the results of the assessment performed within the Feasibility studies.

Table 21 Evaluation of impacts in the Territorial sector No.18

Expressway R3	Territorial sector No.18: MI D1 and R3 Martin – EI R3 and R1 Šášovské Podhradie
Affected Natura 2000 sites	SKUEV0382 Turiec a Blatnický potok SKUEV0147 Žarnovica
Character of collision	In the section Martin - Rakovo, the route is not directly interfering with the SAC Turiec and Blatnický potok, in the section Rakovo - Horná Štubňa it gets in a direct contact with the SAC Turiec and Blatnický potok as well as with the SAC Žarnovica. The section Horná Štubňa - Šášovské Podhradie interferes with SAC Turiec and Blatnický potok at the upper course of the Turiec river.
Assessment of impact on the subject of protection	In the section Rakovo - Horná Štubňa, the SAC Turiec and Blatničianka is potentially marginally affected by the red variant, which is not recommended for implementation. Crossing of the SAC Žarnovica will be affect habitats 91EO* (Ls1.3) Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (a priority habitat of Community importance) and Kr9 Willow scrub of lowland river banks (habitat of national importance). The impact on these habitats lies primarily in their direct disruption as a result of construction of the expressway. Habitats unaffected by the cutting of trees will be adversely affected on their boundaries by emissions and noise, especially during the operation of the expressway. There is also a recorded occurrence of the species of Community importance, the Eurasian otter. In the section Horná Štubňa - Šášovské Podhradie, when crossing the upper section of the Turiec river, there will be a direct impact on protected habitats - mainly by the cutting of trees within the construction of bridges,
Impact level	-1?
Status of the assessment according to the Art. 6(3) and 6(4)	The appropriate assessment has not been conducted.  The final EIA opinion for the section Martin - Horná Štubňa recommends an alternative solution for the section of the route with affected Natura 2000 sites with priority habitats, so that they will be not destroyed. Because,

	<p>if there are priority habitats or priority species in the relevant territory, the proposed activity in the area of Community importance could be permitted only under the assumption that there is no available alternative solution in the territory. The non-existence of other solutions has not been proved within the EIA process. The assessment shows that in the area there is an available alternative of the expressway route outside the concerned protected area. The Technical study (2008) was considering the western bypass of Turčianske Teplice, which is running outside the Natura 2000 sites.</p>
<p>Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)</p>	<p>In the upcoming preparation process of the investment, it will be necessary through an individual EIA process to assess the alternative in the section Martin - Horná Štubňa , which is running outside the Natura 2000 network.</p> <p>According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.</p>

Table 22 Evaluation of impacts in the Territorial sector No.12

Expressway R1	Territorial sector No.12: EI R1 and R2 Sliach – Banská Bystrica – MI D1 and R1 Likavka
Affected Natura 2000 sites	<p>SKCHVU018 Nízke Tatry - direct impact</p> <p>SKCHVU033 Veľká Fatra - direct impact</p> <p>SKUEV1303 Alúvium Hrona - direct impact</p> <p>SKUEV0302 Ďumbierske Nízke Tatry - direct impact</p> <p>SKUEV0198 Zvolen - direct impact</p> <p>SKUEV0164 Revúca - direct impact</p> <p>SKUEV0197 Salatín - direct impact</p> <p>SKUEV0062 Príboj</p> <p>SKUEV0253 Rieka Váh</p>
Character of collision	<p>The route connects the region of Pohronie with the Považie region through the massif of Nízke Tatry, it passes through exposed territory in terms of the landscape, with several protected areas of Community importance. At the beginning of the route, from Banská Bystrica it runs in the vicinity of the SAC Príboj, SPA Alúvium Hrona, close before Moštenica it enters the SAC Ďumbierske Tatry, SPA Nízke Tatry, the surface variant in Korytnická dolina valley can partially interfere with the SAC Zvolen and SPA Veľká Fatra from the western part, from Liptovská Osada heading north, the route crosses the river Revúca, which in this section forms the SAC Revúca, from the eastern part of the valley, the SAC Salatín could be partially affected. Close before the connection to the D1 motorway near Ružomberok, the R1 route crosses the SAC Váh.</p>
Assessment of impact on the subject of protection	<p>The new road in so far undisturbed natural environment constitutes a serious impact on the territory with a concentration of the protected Natura 2000 sites.</p> <p>Impacts on the SPA will cause a secondary reduction of the area of hunting habitats, systematic distraction of bird species and later the increased rate of collisions with motor vehicles during the operation of the expressway. It is possible to expect a negative impact on the favourable conservation status of the habitat of the Golden Eagle and other species. The route is crossing forest and grassland habitats that provide nesting, foraging and hiding possibilities. The construction will cause direct destruction of a part of habitats and the disruption of the territorial integrity by the line of road, the operation will cause permanent disturbances that are not currently present. The implementation therefore constitutes direct interference with the SPA habitats, as well as the factor that will in long-term affect the living conditions of the bird species, with a possible consequential worsening of the favourable conservation status of populations. The mortality of birds could significantly increase due to collisions with vehicles during low flights over their territory.</p> <p>In the SAC, there will be a destruction of habitats of national as well as European importance (even priority ones).</p> <p>The route of the road is mostly planned in a new corridor in the natural environment, therefore there is a presumption of a direct destruction of habitats of some protected animal species. The destruction of habitats will limit the living space of invertebrates and vertebrates (Eurasian otter), especially amphibians, reptiles, birds, large as well as small mammals, the barrier effect will increase. The operation of the infrastructure will cause the increase in noise production what will result in behavioural changes among animal species. The loss of forest habitats will worsen conditions for the survival of bat population potentially inhabiting old hollow trees. Animals will be also affected by light pollution in the affected area. Migratory opportunities will worsen, especially for large mammals. Fenced linear transport structures with intense car traffic will also become a migration barrier. By modifications of flows and destruction of riparian vegetation, there is a risk of losing habitats of otter and semi-aquatic animals, or a risk of direct killing. For habitats of large carnivores (wolf, lynx, bear) the route will constitute a significant fragmentation of their territories. Protected fish species in the SAC Revúca will be also affected during the construction by the turbid water.</p> <p>In addition to the direct loss of habitats and destruction of protected species, conditions will arise, enabling the change in the species composition of plants, including the spread of ruderal and allochthonous plant species.</p> <p>The impact of the expressway on the fauna, flora and their habitats can be considered significant.</p> <p>The planned activity is in a conflict with the interests of nature conservation in the context of interference with protected natural areas, impact on protected habitats, disruption of protected plant species site, disturbance of the area of protected species of animals and the interference with migration bonds.</p> <p>The planned route of R1 will have significant impacts on the natural environment, protected species and the integrity of the Natura 2000 sites. Elimination of these impacts is probably not feasible by any suggested technical and revitalisation measures.</p>
Impact level	-2 ?

Table continuation

Expressway R1	Territorial sector No.12: EI R1 and R2 Sliach – Banská Bystrica – MI D1 and R1 Likavka
<p>Status of the assessment according to the Art. 6(3) and 6(4)</p>	<p>In the process of SEA documentation, the Appendix No. 3 of the New Project of motorways and expressways, which concerned this section, it was concluded that the proposed activity is in a conflict with interests of nature conservation in the context of interference with protected natural areas, the final opinion (2010), however, was complying with the condition that it is necessary to carry out a detailed assessment of the entire route by means of the EIA process.</p> <p>In the EIA process of the project I/59 (R1) Banská Bystrica - border of the self-governing region - Ružomberok D1 (2010) it is recommended to apply the variant, which is a "consensus of the public demand for the provision of transport services with different natural conditions and various protected interests, particularly from the area of nature and landscape protection, protection of human health and water protection, as well as of other phenomena protected by the legislation.</p> <p>The final opinion in the favourable opinion states that "Recommendation of the section 4 route needs to be considered as open because of the high uncertainty of available information,....". The appropriate assessment has not been conducted yet.</p> <p>Should the outcome of the impact assessment prove the adverse impact of the planned activity on the integrity of the territory of the protected areas system in terms of the objectives of its protection and if there are no alternative solutions without adverse effect or if there are no solutions with less adverse effects, the planned activity may be permitted only for imperative reasons of higher public interest and provided there will be an imposition of compensation measures under a special regulation. If there are priority habitats or priority species in the concerned territory, the proposed activity can be allowed only because of imperative reasons of higher public interest relating to the public health, public safety or beneficial consequences of fundamental importance for the environment or, if it is related to other imperative reasons of a higher public interest according to the European Commission. This means that the planned activity in the given area could be permitted only when:</p> <ol style="list-style-type: none"> <li>1. there would be no alternative solution in the area,</li> <li>2. the European Commission would approve it, assuming the demonstration of imperative reasons of overriding public interest,</li> <li>3. there would be an implementation of compensatory measures.</li> </ol> <p>According to recommended EC methodologies, it is acknowledged that in case of proving the likelihood of significant negative impact on at least one subject of protection in concerned site, there is a significant impact on the integrity of the site. This situation may occur with high probability and in that case, the relevant project can be implemented only in case of an imperative higher interest, whereby there shall be no other variants of the projects.</p> <p>According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.</p>
<p>Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)</p>	<p>Within the next stages of investment preparation, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of the Directive on habitats and follow the conclusions of this assessment.</p>

Table 23 Evaluation of impacts in the Territorial sector No.19

Expressway R3	Territorial sector No.19: EI R3 and R1 Budča – EI R3 and R7 Semerovce – Šahy – state border SR/Hungary
Affected Natura 2000 sites	SKUEV0266 Skalka – direct contact SKUEV0260 Mäsiarsky bok - direct contact SKUEV0257 Alúvium Ipľa SKCHVU021 Poiplie
Character of collision	The route is partly interfering with the SPA Poiplie at the boundary part, with no significant impact expected, as in SAC Alúvium Ipľa, where indirect impacts may occur in particular.  In the SAC Mäsiarsky bok, which is proposed in order to protect forest habitats of Community importance, and for the bound species of fauna (forest ecosystem with reefs and rubble) there is a presumption of an interference of the structure with the forest ecosystem of larger size (slope anchoring, nailing of sections in cuttings, cutting of forests, regulation and relocation of the meandering brook Krupinica etc.). In this section, slightly disturbed by anthropogenic activity, the route runs mostly on elevated motorway.
Assessment of impact on the subject of protection	A direct impact of the implementation of the assessed route will be the interference with forest habitats of European and national importance in the affected area. In connection with the planned activity, there will be a removal of the vegetation cover, as well as changes in the soil horizon in the route. In terms of the impact of some of the proposed variants, there is a realistic possibility to harm valuable habitats of an European importance, particularly in the SAC Mäsiarsky bok (priority forest habitats) and SAC Skalka. The implementation of the tunnels will lead to the removal of forests, but northern and southern portals of the proposed tunnels are not in a contact with the priority forest habitats. In a still pending EIA process, several alternative routes in sensitive sections were considered. There is a tunnel solution that is more acceptable in terms of the interference with priority habitats. In a certain section, the route leads in a contact with the road I/66 and the railway line, it forms another road corridor in a confined space and causes excessive fragmentation of the territory.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	Besides the identification of locations within the EIA process, the impacts on Natura 2000 sites have not been considered in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been carried out. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the assessment of impacts of activities on the environment, it is necessary to perform the appropriate assessment of impacts on the Natura 2000 sites concerning objectives of the protection of these sites pursuant to the Article 6, section 3 and 4 of the Directive on habitats.

#### **Summary evaluation of Measure 5. North - south communication axis in Central Slovakia, alternative R3**

North - south communication axis in Central Slovakia, the alternative R3 - R1 - R3 starts with the R3 route at the border of SR and Poland, continues through Tvrdosín, Nižná, Dolný Kubín to Hubová, where it connects to the D1. The route crosses the SAC Orava several times, because geomorphologic conditions do not allow to completely avoid the meandering river Orava in the narrow space. In this SAC, there are several direct impacts and affected conditions for species and habitats that are subjects to protection. For the SPA Chočské vrchy, the route represents a less significant impact. The route goes on in a concurrence with the D1 in the section Hubová - Martin. This section is evaluated under the measure D1, the affected SAC is the Váh river, where there is multiple bridging. From Martin, the route continues in the section Martin - Horná Štubňa - Šášovské Podhradie. There is an expected impact on two SAC (SAC Turiec a Blatnický potok and SAC Žarnovica) in this section. Depending on the selected variant some interferences can be avoided and direct impacts on habitats and species, which are subjects to protection, can be minimised. Another section of the North-south interconnection in Central Slovakia is the expressway R3 section Zvolen - Šahy with direct interference with the SAC Mäsiarsky bok, SAC Skalka, SAC Alúvium Ipľa and marginal interference with SPA Poiplie. Impacts have been evaluated as less significant, depending also on the selected variant.

#### **Summary evaluation of Measure 5. North - south communication axis in Central Slovakia, alternative R3-R1-R3**

In the section Hubová - state border SR/Poland, the north - south communication axis in Central Slovakia, alternative R3-R1-R3 has the same routing as the R3 alternative. The route is running in concurrency with the D1 motorway in the section Hubová - Ivachnová to the Likavka interchange and goes on in the section Ružomberok - Banská Bystrica. The route interferes with several SAC (SAC Alúvium Hrona, SAC Ďumbierske Tatry, SAC Zvolen, SAC Salatín, SAC Revúca) and SPA (SPA Veľká Fatra and SPA Nízke Tatry) and the whole section runs in a valley so far undisturbed by the urbanisation. The negative impact on subjects of the protection and the integrity of the Natura 2000 sites is assessed as significant. This is the most controversial section of the north - south interconnection in the Central Slovakia. Another section of the north - south interconnection is the R3 expressway section Zvolen -Šahy, identical with the alternative R3.

All sections with indicated negative impacts shall be implicitly evaluated in terms of conservation objectives of affected sites in accordance with the Art. 6(3) and 6(4) of the Habitats Directive and conclusions of this assessment shall be considered within the further investment preparation.

Results of the comparison of alternatives in terms of the significance of the impacts on the Natura 2000 sites are more favourable for the R3 alternative.

#### Measure 6. Road network in Bratislava agglomeration

The scope of road transport projects included in the measure is of a wider area than just the determined regional boundaries. It is particularly concerning the context and effect of one of the important radial roads - southern corridor Bratislava - Dunajská Streda – Nové Zámky – Lučenec, which represents the route of the planned expressway R7. The assessed territorial sector was determined on the basis of logical transport, residential and regional relations, with the scope from the city of Bratislava to Dunajská Streda (incl.).

Table 24 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
10	MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria	18	D4	Bratislava Jarovce – Ivanka pri Dunaji sever - Rača
		61	D4	Rača interchange– Záhorská Bystrica
		62	D4	Devínska Nová Ves - state border SR/Austria
11	MI D4 and R1 Most pri Bratislave – EI R1 Sereď	63	R1	Most pri Bratislave - Vlčkovce
23	MI D1 and R7 Bratislava Prievoz – MI D4 and R7 Bratislava Ketelec – EI R7 and I/63 Dunajská Streda (Kútniky)	19	R7	Bratislava Ketelec - Bratislava Prievoz
		20	R7	Bratislava - Dunajská Lužná
		21	R7	Dunajská Lužná - Holice
		52	R7	Holice - Dunajská Streda

Table 25 Evaluation of impacts in the Territorial sector No.10

Motorway D4	Territorial sector No.10: MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria
Affected Natura 2000 sites	SKUEV0295 Biskupické luhy - direct contact SKUEV0312 Devínske alúvium Moravy - direct contact SKUEV0314 Rieka Morava – direct contact SKUEV0104 Homoľské Karpaty SKUEV0279 Šúr SKUEV0388 Vydrice SKUEV0089 Martinský les SKUEV0269 Ostrovné lúčky

Motorway D4	<b>Territorial sector No.10: MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria</b>
	SKCHVU014 Malé Karpaty - direct contact SKCHVU007 Dunajské luhy - direct contact SKCHVU016 Záhorské Pomoravie – direct contact SKCHVU029 Sysľovské polia
Character of collision	The route of D4 Bratislava Jarovce – Ivanka pri Dunaji from the interchange with D2 runs in a vicinity of the SAC Ostrovné Lúčky, it crosses the SAC Biskupické luhy in the almost narrowest point. It is also passing through the SPA Dunajské luhy. In the section D4 Ivanka pri Dunaji sever – Bratislava - Záhorská Bystrica from the interchange Ivanka Sever – Stupava it runs through a tunnel under the Malé Karpaty mountains. Within the tunnel route through the Malé Karpaty, the tunnel mouths can affect the SPA Malé Karpaty and there are also borders of the SAC Homolské Karpaty in the vicinity. In the section D4 Bratislava - Devínska Nová Ves – state border SR/Austria, there are affected SPA Záhorské Pomoravie, SAC Devínske alúvium Moravy and SAC Rieka Morava. Other mentioned areas are not directly affected, but concerning the sensitive habitats and species, for which they were declared, their affecting is likely as well.
Assessment of impact on the subject of protection	There is significant interference and impacts on the Natura 2000 sites in the sector. Significant impact on these sites and subjects of protection, for which these sites have been declared, can not be ruled out.  In the section Jarovce - Ivanka-sever, in the SAC Biskupické luhy, the habitats of Community importance 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) and habitats of great capricorn beetle ( <i>Cerambyx cerdo</i> ) and <i>Lucanus cervus</i> will be directly affected.  The route in the vicinity of the SAC Ostrovné Lúčky is running on a bridge outside the protected area, there will be noise and lighting. In the SPA Dunajské luhy, there will be a direct take of a part of the area and a direct effect of noise and lighting on protected bird species. Concerning the SPA Záhorské Pomoravie it is possible to conclude that despite the possible negative impacts of the planned construction there will be no significant reduction and impact on populations and favourable conservation status of most species that are subjects to the protection. In the concerned area and its vicinity, 45 species of animals were recorded in total, which are subject to the protection within Special Areas of Conservation. All variants of the route have an impact on protected species and the take of habitats of a various scope. Prior to the construction, it is necessary to implement the rescue transfer of protected plant and animal species directly threatened by the construction of the proposed activity on the basis of a current research just before the construction begins.
Impact level	-2?
Status of the assessment according to the Art. 6(3) and 6(4)	To the Technical Study for the section of motorway D4 Bratislava Jarovce – Ivanka pri Dunaji sever the Study on assessment of impacts has been elaborated; within it also the „Study on assessment of motorway impacts on protected areas“ 04/2010 and its amendment from z 04/2011 have been conducted. In 2010, the section of the motorway D4 Ivanka sever – Záhorská Bystrica, has been evaluated in compliance with requirements of the provisions of the Art. 6(3) and 6(4) of the Habitats Directive, wild flora and fauna of 92/43/EEC. The report has identified no actual significant negative impact of the assessed project on the integrity and subjects of protection of any Special Area of Conservation or Special Protected Areas. However, the precondition for decisive and unambiguous exclusion of a significant negative impact, is the implementation of a comprehensive monitoring. The final opinion recommended the implementation of the planned activity provided the compliance with conditions and the implementation of measures. For the section Ivanka sever – Rača interchange, the variant solution 7b in semi-embedded version has been recommended. In the section Rača interchange – Záhorská Bystrica it has been recommended not to continue in the implementation of planned activity for the reason of complexity and seriousness of the tunnel passage through the Malé Karpaty massif, apparent uncertainty resulting from the knowledge of the affected territory at a level of the technical study and in particular, a disagreement of citizens and non-governmental organisations with regard to the motorway routing. It has been proposed to carry out the detailed technical study and in a new assessment process to assess the environmental impacts in the section Rača interchange – Záhorská Bystrica within the broader corridor of variant 7.  In the section Devínska Nová Ves – state border SR/Austria, from the EIA assessment in terms of the nature protection it results that the corridor Devínska Nová Ves – state border SR/Austria runs in the narrowest as well as the terminal area of the SPA Záhorské Pomoravie outside the territory of CHKO Záhorie. If there would be a search for a new corridor, there is a presumption of much more significant takes of protected areas in the territory of Slovakia. New routing would create a new element of stress in the area and it would virtually separate the SPA Záhorské Pomoravie in two halves with a new linear foreign element in the landscape. The appropriate assessment pursuant to requirements of provisions of Articles 6(3) and 6(4) of the Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora has not been conducted yet, even though the Environmental report includes indicated negative impacts on the Natura 2000 sites. All variants of the route alignment involve necessary partial take of Natura 2000 sites and assume the impacts on species being the subject of protection as well.
Recommended	In the section Devínska Nová Ves – state border SR/Austria, where an appropriate assessment of impacts on



<b>Motorway D4</b>	<b>Territorial sector No.10: MI D4 and D2 Bratislava Jarovce – MI D4 and R7 Bratislava Prievoz – MI D4 and D1 Ivanka pri Dunaji Sever – MI D4 and D2 Stupava juh – state border SR/Austria</b>
further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	NATURA 2000 sites, with regard to conservation objectives of these sites according to Art. 6(3) and 6(4) of Habitats Directive has not been elaborated yet, such assessment shall be conducted. In the next investment preparation process, the results and measures resulting from appropriate assessment shall be accepted. According to the information from NDS, the appropriate assessment pursuant to the Art. 6(3) and 6(4) of the Habitats Directive of sections, where there is a relevant impact and interference with the Natura 2000 sites, will be a part of feasibility studies, which are currently being prepared.

Table 26 Evaluation of impacts in the Territorial sector No.11

<b>Expressway R1</b>	<b>Territorial sector No.11: MI D4 and R1 Most pri Bratislave – EI R1 Sered'</b>
Affected Natura 2000 sites	SKCHVU023 Úľanská mokrad'
Character of collision	All considered variants are crossing the affected SPA.
Assessment of impact on the subject of protection	The construction and operation of the expressway will lead to direct takes of habitats of species, for which the SPA has been declared. The noise and lighting pollution will have a significant negative impact, a significant mortality is expected within the collisions with vehicles and the environmental pollution will be increased as well. A significant negative impact is expected on the species like Western Marsh-harrier, Montagu's Harrier, Red-footed Falcon, Saker Falcon and Black Kite. A slightly negative impact is expected on other bird species.
Impact level	-2
Status of the assessment according to the Art. 6(3) and 6(4)	In 2013, an Appropriate assessment of impacts on Natura 2000 sites has been elaborated for the R1 expressway section Most pri Bratislave - Vlčkovce. The conclusion of assessment states significant negative impact (-2) on subjects of protection and integrity of the SPA for all considered variants.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	In the context of this assessment, it is not possible to eliminate the significant negative impact (-2) as such in compliance with the methodology by any suggested mitigation measures. A possible and viable solution of this situation is to adjust the technical design of expressway R1 (e.g. by the extension of noise barriers within the update of the Technical study that will be a basis for the Environmental Report) for the next EIA assessment level. For the Environmental Report EIA level we recommend the amend the technical designs of the variant, which will reduce these significant negative impacts to an acceptable level and within the Report to perform a new appropriate assessment of impacts on the Natura 2000 sites, which could result in slightly negative impact (-1).

Table 27 Evaluation of impacts in the Territorial sector No.23

<b>Expressway R7</b>	<b>Territorial sector No.23: DK D1 and R7 Bratislava Prievoz – DK D4 and R7 Bratislava Ketelec – KRC R7 and I/63 Dunajská Streda (Kútniky)</b>
Affected Natura 2000 sites	SKCHVU007 Dunajské luhy SKUEV0295 Biskupické luhy
Character of collision	There are several Natura 2000 sites in the territorial sector, which are crossed or affected by the route of R7.  In the section of the R7 expressway from Bratislava Prievoz to Bratislava Ketelec, one of the designed variants passes in a close vicinity of the SPA Dunajské luhy and the SAC Biskupické luhy. In the section of the R7 expressway from Bratislava Ketelec to Dunajská Lužná, the route passes in the vicinity of the SAC Biskupické luhy as well as the SPA Dunajské luhy.
Assessment of impact on the subject of protection	Concerning the occurrence of habitats of species in the SAC Biskupické luhy, the planned activity can affect the population of <i>Cerambyx cerdo</i> , <i>Lucanus cervus</i> , European fire-bellied toad, Central European tundra vole. It affects the habitat 91F0 Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ). Based on the evaluation of impact on the subject of protection, it is possible to state that the planned activity has a slightly negative effect on the integrity of the SAC Biskupické luhy and SPA Dunajské luhy.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	In May 2013, an appropriate assessment has been elaborated; it relates to the impact of construction on NATURA 2000 areas for the section Ketelec – Prievoz; it states that proposed activity in Variant A will not have a substantial or significant impact on the protection subject and integrity of affected sites. Reduction in habitat area, species population as well as in the biodiversity of the area in the SAC Biskupické luhy is not significant. Within the EIA process, studies have been elaborated (2008) for the section Bratislava – Dunajská Lužná; which partly meet the characteristics of an appropriate assessment - the impact of the activity on the Biskupické luhy area, impact on birds and impact on habitats. The assessment results did not show significant negative impacts. In section Holice – Dunajská Streda, an appropriate assessment has been elaborated in 2011; it concluded that the construction and operation of an R7 expressway in section Holice – Dunajská Streda in all variants will not have a negative impact on sites, habitats and species which are the subject-matter of protection in Natura 2000 areas.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	The appropriate assessment of impacts pursuant to Art. 6(3) and 6(4) of the Habitats Directive of individual sections has not proved any significant negative impacts on Natura 2000 sites, further assessment is not required.

### Summary evaluation of measure 6. Road network in Bratislava agglomeration

The measure Road network in Bratislava agglomeration includes several projects that will interfere with the Natura 2000 sites. The motorway D4 presents a new linear barrier in the area and directly affects SAC Biskupické luhy, SAC Devínske alúvium Moravy, SAC Morava, SPA Malé Karpaty, SPA Dunajské luhy and SPA Záhorské Pomoravie. All variants of the route have an impact on protected species and the take of habitats of a various scope. Significant impact on these sites and subjects of protection, for which these sites have been declared, can not be ruled out. Furthermore, the route will indirectly affect other SAC and SPA. In the section Rača interchange – Záhorská Bystrica it has been recommended not to continue in the implementation of planned activity for the reason of complexity and seriousness of the tunnel passage through the Malé Karpaty massif, apparent uncertainty resulting from the knowledge of the affected territory at a level of the technical study and in particular, a disagreement of citizens and non-governmental organisations with regard to the motorway routing. It has been proposed to carry out a detailed technical study and in a new assessment process to assess the environmental impacts in the section Rača interchange – Záhorská Bystrica within the broader corridor of variant 7. The road network in the Bratislava agglomeration includes sections of the expressway R7 Bratislava Prievoz – Bratislava Ketelec – Holice – Dunajská Streda (Kútniky). Based on the evaluation of the impact of R7 on the subject of protection, it is possible to state that the planned activity has a slightly negative effect on the integrity of the SAC Biskupické luhy and SPA Dunajské luhy. In the section R1 Most pri Bratislave - Sered', significant negative effects were identified on the conservation subjects of SPA and on the integrity of Natura 2000 sites, the preparation of this investment may continue after the amendment of the technical design that will be reevaluated by a new appropriate assessment.

### Measure 7. Completion of priority axis west - east of Slovakia

Table 28 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
22	MI D1 and R6 Beluša – Púchov – Lysá pod Makytou – state border SR/Czech Republic	17	R6	Mestečko - Púchov

### Summary evaluation of Measure 7. Completion of priority axis west - east of Slovakia

Measure 7. Completion of priority axis west - east of Slovakia is not in a collision with any Natura 2000 sites, the assessment of the measure is irrelevant.

### Measure 8. Development of the I. class road network and expressway network outside TEN-T (expressways)

Table 29 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
24	EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec	53	R7	Dunajská Streda - Nové Zámky
		72	R7	Nové Zámky - Čaka
		73	R7	Čaka - Veľký Krtíš
		74	R7	Veľký Krtíš - Lučenec
25	EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy	75	R8	Nitra - R2 interchange

Table 30 Evaluation of impacts in the Territorial sector No.24

Expressway R7	Territorial sector No.24: EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec
Affected Natura 2000 sites	SKCHVU005 Dolné Považie - direct contact SKCHVU021 Poiplie - direct contact SKUEV0084 Zátoň SKUEV0261 Dedinská hora SKUEV0086 Krivé Hrabiny SKUEV0054 Cudenínsky močiar SKUEV0055 Ipeľské hony SKUEV0257 Alúvium Ipľa – direct contact SKUEV0365 Dálovský močiar - direct contact
Character of collision	The selected variant of the route of the expressway in section Dunajská Streda - Nové Zámky - Čaka passes through the northern part of the SPA Dolné Považie. The section Čaka - Veľký Krtíš is still being considered in several variants, some of which are directly interfering with the SAC Alúvium Ipľa and the SAC Cudenínsky močiar. The section Veľký Krtíš – Lučenec is also considered in several variants, where the southern variant directly affects the SAC Dálovský močiar and the SPA Poiplie.
Assessment of impact on the subject of protection	Affected SAC represent wetland habitats that are vulnerable to interferences and each interference and change in the water regime affect these habitats and the species attached. Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation (3150) habitats will be endangered in particular.

<b>Expressway R7</b>	<b>Territorial sector No.24: EI R7 and I/63 Dunajská Streda (Kútniky) - Nové Zámky – EI R7 and R3 Semerovce – EI R7 and R2 Lučenec</b>
	Direct habitat loss will endanger the population of species Large Copper, <i>Lucanus cervus</i> and European fire-bellied toad. The loss of hunting areas will affect the Eurasian otter as well. A partial loss of hunting and feeding habitats is expected in the affected SPA (marginal interference) as well as the increase in the risk of affecting the species with negative impacts of the operation of the transport operation (distraction, mortality).
Impact level	-2?
Status of the assessment according to the Art. 6(3) and 6(4)	<p>An appropriate assessment has not been elaborated for the section Dunajská Streda – Nové Zámky; it is necessary to elaborate such assessment with regard to direct contact with CHVU Dolné Považie.</p> <p>In November 2011, the study on impacts of R7 Nové Zámky - Čaka on the SPA Dolné Považie has been elaborated. From the exploration of birds in broader surroundings as well as directly on the route of the planned expressway and from the monitoring of selective bird species within the SPA Dolné Považie it results that the planned expressway will not have negative impact on the SPA Dolné Považie.</p> <p>In April 2011, an assessment of the project charter impact on Natura 2000 sites has been elaborated for the road section Veľký Krtíš – Lučenec. The evaluation objective was to assess whether the R7 expressway in section Veľký Krtíš – Lučenec will have a significant negative impact on the protection subject and integrity of Natura 2000 areas - SPA Poíplie, SAC Dálovský Močiar and SAC Dedinská hora.</p> <p>The assessment concludes that the construction and operation of R7 expressway in section Veľký Krtíš – Lučenec, in Variants B and B1 will have a significant impact and it will negatively affect the site and species that are subjects to the protection of the SAC Dálovský močiar and SPA Poíplie. According to the Article 6(4) of the Directive 92/43 EEC it has been stated that for the area there is another alternative solution; which is socially, economically and technically comparable and that within the area there is another possible routing as in Variants B and B1. .</p>
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	It is necessary to complete the assessment of impacts according to Art. 6(3) and 6(4) of Habitats Directive of the section Dunajská Streda - Nové Zámky in terms of protection objectives of the Natura 2000 sites and to follow the conclusions of the assessment within the preparation of the investment. In other sections, it is necessary to proceed in accordance with appropriate assessment conclusions. In sections where a significant negative impact has been proved, the variants outside the Natura 2000 sites shall be preferred.

Table 31 Evaluation of impacts in the Territorial sector No.25

<b>Expressway R8</b>	<b>Territorial sector No.25: EI R8 and R1 Nitra západ – EI R8 and R2 Brezolupy</b>
Affected Natura 2000 sites	SKCHVU031 Trábeč - direct contact and crossing SKUEV0589 Chynoriansky luh
Character of collision	The route is interfering with the northern spur of the SPA Trábeč. The contact is of marginal character.
Assessment of impact on the subject of protection	Species that are subject to protection have nesting and hunting territory in the affected area. The loss of habitats will not reach the level that would affect the favourable conservation status of populations (concerning the species Common Quail and Barred Warbler). Hunting territories of predators will be only partially affected, the negative impact on predators is represented by the threat during direct crossing over the motorways, with possible killings by vehicles. Concerning the marginal interference with the SPA, the significant fragmentation of habitats is not an issue.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	The assessment of impacts of the construction and operation of the expressway R8 on the SPA Trábeč has been elaborated in April 2010. Results show that the impact of construction and operation of R8 on selected species of birds in the SPA Trábeč is non-significant, or less significant.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the preparation of the investment follow the conclusions of the appropriate assessment, further assessment is not required.

**Summary evaluation of Measure 8. Development of the I. class road network and expressway network outside TEN-T (expressways)**

The routing of the expressway R7 in section Dunajská Streda (Kútniky) - Nové Zámky – Lučenec has not been determined yet. Considered variants may interfere with some SAC and SPA. While the contact of route with the SPA Dolné Považie will be probably unavoidable, the interference with the SPA Poiplie is not necessary considering the northern variants. The same applies to a case of the interference with the SAC Alúvium Ipľa and SAC Dálovský Močiar, where there are variants, which avoid the Natura 2000 sites. Concerning the expressway R7 in the section Nitra - Brezolupy, there is an indicated interference with the SPA Trábeč, the EIA assessment concluded that it will be non-significant, or less significant only.

## 5.2 Railway transport

### Measure 1. Upgrading of TEN-T network

Table 32 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
1	Bratislava	1	100	Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation
		2	120	Integrated Transport System in Bratislava - reconstruction and upgrading of the railway stop Bratislava - Vinohrady, implementation (Bratislava Hlavná stanica (Central station) - Rača)
		16		Node Bratislava - Integrated Transport System Bratislava, implementation
		17		Node Bratislava – upgrading of section Predmestie - Rača, project documents and implementation
		18		Node Bratislava - railway connection to the M.R. Štefánik airport Bratislava, reconstruction of a railway bridge near Nové Mesto, implementation
		19		Node Bratislava - Bratislava hl. stanica - Bratislava Nové Mesto, doubling of railway track
		20		Node Bratislava – Construction of transfer point BA Vinohrady - BA-Predmestie, project documents and implementation
		21		Node Bratislava - railway connection to the M.R. Štefánik airport Bratislava, completion of project documents and implementation
3	Púchov - Žilina	4	120	Upgrading of the railway line Púchov - Žilina, for a line speed of up to 160 km/h - Stage I. - (Púchov - Považská Teplá)
		5	120	Upgrading of the railway line Púchov - Žilina, for a line speed of up to 160 km/h, Stage II. - (section Považská Teplá /outside/ - Žilina /outside/)
4	Žilina	6	120, 180, 127	Node Žilina, Completion of marshalling yard in Žilina - Teplička and a follow up railway infrastructure, implementation
5	Žilina - Košice	7	180	Upgrading of the railway line Žilina - Košice, section Liptovský Mikuláš - Poprad Tatry (outside), implementation of sections Poprad-Tatry - Lučivná and Paludza - Liptovský Hrádok
		8	180	Upgrading of the railway line Žilina - Košice, section - Poprad Tatry (outside) - Krompachy, implementation of the section Spišská Nová Ves - Poprad-Tatry
		14	180	Upgrading of the railway line Žilina - Košice, section Kysak - Košice, implementation
		15	180	Košice - Kostofany nad Hornádom (pilot structure for the integrated rail transport), implementation
7	Košice – Michalany - Čierna nad Tisou – state border SR/Ukraine	9	190	Čierna nad Tisou, modernisation of node, project documents + implementation
11	Žilina – Čadca – state border SR/Czech Republic	13	127	Upgrading of corridor state border Czech Republic/SR - Čadca - Krásno nad Kysucou (outside), railway line, implementation

Note:

Following projects within the territorial sector are not in a collision with the NATURA 2000 sites:

- No.1 (Bratislava except the line No. 100 Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation)

- No.3 (Púchov - Žilina)
- No.7 (Košice - Michalany - Čierna nad Tisou - SR/Ukraine border)
- No.11 (Žilina – Čadca – state border SR/Czech Republic)

Table 33 Evaluation of impacts in the Territorial sector No.1

Railway lines in Bratislava	Territorial sector No.1: Bratislava (Electrification of the track Devínska Nová Ves - state border SR/Austria, implementation)
Affected Natura 2000 sites	SKCHVU016 Záhorské Pomoravie, SKUEV0314 Morava SKUEV0312 Devínske alúvium Moravy.
Character of collision	The electrification of the track will be performed in the current body of the track without any additional interferences. The existing railway line Devínska Nová Ves - Marchegg runs through the SPA Záhorské Pomoravie, SAC Morava and SAC Devínske alúvium Moravy. During the electrification of the track Devínska Nová Ves – state border, there will be a construction of traction poles and related technical equipment.
Assessment of impact on the subject of protection	The construction will not interfere with protected habitats and habitats of protected species, direct impacts and the destruction of habitats and species are not expected. Indirect impacts are possible during the construction. Negative impacts are not expected during the operation. The technical literature does not mention cases with an injury, or death of birds on railway contact lines in contrast to the electric lines with voltage of 22 kV and higher. It implies that the electrification of tracks does not belong to activities, which could negatively affect the favourable conservation status of bird species habitats of Community importance representing the subject of protection. Concerning the sensitive habitats and species, it is necessary to assess the potential negative impacts in detail.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been carried out.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.

Table 34 Evaluation of impacts in the Territorial sector No.4

Railway lines in Žilina	Territorial sector No.4: Žilina
Affected Natura 2000 sites	SKUEV0221 Varínka – direct contact SKUEV0665 Strečnianske meandre Váhu SKCHVU013 Malá Fatra
Character of collision	The planned project crosses the territory of the SAC Varínka by a bridge. The SPA Malá Fatra is located in the broader area, in a distance of approx. 500 meters in the nearest point.
Assessment of impact on the subject of protection	The SAC Varínka has an area of 154.59 hectares and the length of the protected watercourse is more than 20 kilometres. The river Varínka is crossed by the railway line just before its discharge into the Váh river, in the original body by an existing bridge, whereby one of the pillars is situated in the middle of the water course. In case of the reconstruction of bridge pillars, it will be necessary to cut down trees in a needed extent, interfering with the Alluvial forests with habitat (91E0) - <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ). Impact on other habitats and species is not expected. According to the description of activities, which may have a negative impact on the conservation objectives of the protected area, a cutting of riparian vegetation with length over 50 meters is considered as a negative impact. Given the extent of the special area of conservation, the nature of riparian vegetation at the site of the bridge and the limited interference with the SAC, the impact on the SAC is considered less important. The SAC Strečnianske meandre Váhu are in a marginal contact with the route.

	Impact on the SPA Malá Fatra, given the nature of the project and about 500 m distance is not expected.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	Due to the reconstruction of the bridge in its original location and extent of damage to SAC the potential impacts on the conservation objectives are assessed as less significant.  An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 areas has not been conducted.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Due to the not significant nature of impacts, further assessment pursuant to the Art. 6(3) and 6(4) is not required.

Table 35 Evaluation of impacts in the Territorial sector No.5

<b>Railway line 180</b>	<b>Territorial sector No.5: Žilina - Košice</b>
Affected Natura 2000 sites	SKUEV0309 Poprad SKCHVU053 Slovenský raj - in a short section, the route is running close to the border SKUEV0112 Slovenský raj SKUEV0139 Gánovské slaniská SKUEV0708 Primovské skaly SKUEV0782 Vydrnícka slatina SKUEV0784 Mašianske sysľovisko SKCHVU036 Volovské vrchy SKUEV0328 Stredné Pohornádíe
Character of collision	The railway line in the section Poprad - Tatry – Lučivná crosses the SAC Poprad in the town Svit, where the reconstruction of the existing railway bridge will be implemented. Interference with the existing habitats of Community importance is expected.  In the section Poprad - Spišská Nová Ves, the route does not directly affect any Natura 2000 sites. In a short section at Smižany route runs just close to the border of the SPA Slovenský raj. Mentioned SAC sites are located in a corridor of approx. 1 000 m.  In the section Kysak - Košice, the relocation of the railway line between Trebejov and Družstevná nad Hornádom marginally affects SPA Volovské vrchy in a short section. There is no contact with the SAC Stredné Pohornádíe, at the nearest approach to the SAC railway remains in the original line.
Impact level	-1
Assessment of impact on the subject of protection	In the section of railway line with planned reconstruction, Liptovský Mikuláš - Košice, there is a great potential of an interference with Natura 2000 sites, as the original route in some sections runs through those sites. In some places are the borders of protected areas adjusted to the route of the railway line, in other parts, the railway is a part of them.  The impact on habitats in the SAC Poprad will be minimum, the reconstruction of a bridge is performed in the original position. Double-sided bank benches with a width of at least 60 cm will be built during the reconstruction of the bridge, thereby enhancing the possibilities of migration of the otter, even at higher water levels.  Considering the reconstruction of the bridge in the original position, an impact on spawning sites of the Huchen is not expected, the interference with its habitat may occur only during the construction in a form of unforeseen accidents. Significant impacts on the species Carpathian brook lamprey are not expected either.  Especially vulnerable to the interference are the salt marshes and moorland habitats and species bound to these sites, they are located in the section Poprad - Spišská Nová Ves, in the vicinity of the upgraded line. It is essential not to interfere with the water regime of the sites. Habitat of the European ground squirrel will not be affected, it is necessary to ensure the possibility of migration and avoid direct conflicts. It is unlikely that in SPA, which are affected by the route, the planned reconstruction will represent a significant restraint of nesting and hunting habitats and a threat to populations of bird species, for which the sites are designated. The SAC Stredné Pohornádíe will not be affected. Less significant impacts on subjects of the protection are expected.



Railway line 180	Territorial sector No.5: Žilina - Košice
Status of the assessment according to the Art. 6(3) and 6(4)	Assessment within the EIA process, aside from the identification of locations of the affected Natura 2000 sites, did not consider the impacts on the subjects of protection and the integrity of the sites in detail. The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been conducted.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	The degree of the interference shall be assessed in the next stage of the preparation of the construction by procedures according to Methodological guidance on the provisions of Art. 6(3) and 6(4) of the Habitats Directive.

### Summary evaluation of Measure 1. Upgrading of TEN-T network

Most of the expected interferences and impacts on subjects to protection in the Natura 2000 sites have been identified in the territorial sectors 4 and 5 on the route Žilina - Košice. Even today, the route runs through a highly attractive area in terms of the occurrence of valuable natural sites, their importance in the EU was underlined by the inclusion of those sites in the Natura 2000 system. No significant negative impacts on the subjects of protection and the integrity of the Natura 2000 sites have been identified within the measure, only marginal interferences with some sites are expected as well as less significant impacts on populations of some species, for which these sites were declared. The favourable conservation status of habitats, species and populations will not be significantly disrupted.

### Measure 2. Technological ensuring of interoperability

Table 36 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
2	Bratislava – Kúty – state border SR/Czech Republic	3	110	Deployment of ERTMS in the corridor No. IV Kúty, state border SR/Czech Republic - node Bratislava (ETCS L2 + GSM R), implementation
1	Bratislava	22		Creation of interoperability conditions in the node Bratislava, implementation according to the final variant
8	Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary	10	130, 135	Deployment of the ERTMS in the corridor No. IV Bratislava - Nové Zámky - Štúrovo / Komárno, (ETCS L2 + GSM R), implementation

Note:

- The project within the territorial sector No.1 (Creation of interoperability conditions in the node Bratislava, implementation according to the final variant) is not in a contact with the Natura 2000 sites.

Table 37 Evaluation of impacts in the Territorial sector No.2

Railway line 110	Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic
Affected Natura 2000 sites	There are several Natura 2000 sites in the route corridor (1 000 m) (SKUEV0117 Abrod, SKUEV0121 Marhecké rybníky, SKUEV0167 Bezodné, SKUEV0312 Devínske alúvium Moravy, SKUEV3013 Devínske jazero, SKUEV0502 Štokeravská vápenka, SKUEV0217 Ondriašov potok, SKUEV0218 Močiarka, SKUEV0388 Vydrlica, SKCHVU016 Záhorské Pomoravie).
Character of collision	Deployment of the ERTMS does not imply any interference with the Natura 2000 sites
Assessment of impact on the subject of protection	The deployment of the ERTMS does not imply any territorial claims and interferences with the Natura 2000 sites, it has no impact on subjects of protection in affected territories.

<b>Railway line 110</b>	<b>Territorial sector No.2: Bratislava – Kúty – state border SR/Czech Republic</b>
Impact level	0
Status of the assessment according to the Art. 6(3) and 6(4)	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 areas has not been conducted.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.

Table 38 Evaluation of impacts in the Territorial sector No.8

<b>Railway line 130, 135</b>	<b>Territorial sector No.8: Bratislava – Nové Zámky – Štúrovo/Komárno - state border SR/Hungary</b>
Affected Natura 2000 sites	In the route corridor (1 000 m), there are several Natura 2000 sites (SKUEV0097 Palárikovské lúky, SKUEV0095 Panské lúky, SKUEV 0184 Burdov, SKUEV0393 Dunaj, SKCHVU020 Parížske močiare, SKCHVU005 Dolné Považie, SKCHVU023 Úľanská mokraď).
Character of collision	Deployment of the ERTMS does not imply any interference with the Natura 2000 sites
Assessment of impact on the subject of protection	The deployment of the ERTMS does not imply any territorial claims and interferences with the Natura 2000 sites, it has no impact on subjects of protection in affected territories.
Impact level	0
Status of the assessment according to the Art. 6(3) and 6(4)	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 areas has not been conducted.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	No impacts on subjects of protection and the integrity of Natura 2000 are expected, no further assessment is required.

### Summary evaluation of Measure 2. Technological ensuring of interoperability

The interoperability of railways represents an unification of a radio communication system for railways GSM-R and train run control (train control system ETCS - European Train Control System) enabling to create an unified control system ERTMS (European Railway Traffic Management System). Deployment of ERTMS equipment does not imply any impact on the Natura 2000 sites in the corridor of existing lines.

### Measure 3. Electrification of major lines

Table 39 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Road	Section
9	Zvolen-Košice	11	160	Electrification of the track Haniska pri Košiciach - Moldava nad Bodvou, implementation
		23	160	Zvolen - Filakovo, Electrification of the track, Implementation
		24	160	Electrification and optimisation of the line Filakovo - Moldava nad Bodvou, implementation
10	Michaľany - Humenné - Medzilaborce	12	191	Electrification of the track Bánovce nad Ondavou - Humenné, implementation
13	Bratislava - Komárno	27	131	Bratislava Nové Mesto - Dunajská Streda - Komárno, doubling and electrification of the track
14	Leopoldov – Nitra - Šurany	25	141, 140	Electrification and optimisation of the line Leopoldov - Nitra - Šurany, implementation

Note:

Following projects within the territorial sector are not in a collision with the NATURA 2000 sites:

- No.10 Michaľany - Humenné - Medzilaborce
- No.14 Leopoldov - Nitra - Šurany

Table 40 Evaluation of impacts in the Territorial sector No.9

Railway line 160	Territorial sector No.9: Zvolen - Košice
Affected Natura 2000 sites	SKCHVU022 Poľana SKUEV0247 Rohy SKCHVU021 Poiplie SKCHVU003 Cerová vrchovina – Porimavie SKCHVU009 Košická kotlina SKCHVU027 Slovenský kras SKUEV0398 Slaná SKUEV0343 Plešivské stránne SKUEV0346 Pod Strážnym hrebeňom SKUEV0350 Brzotínske skaly SKUEV0353 Plešivská planina SKUEV0352 Hrušovská lesostep SKUEV0356 Horný vrch SKUEV0737 Palanta
Character of collision	<p>The electrification is performed on the current track. The project also includes adjustments to safety and information installations, relocations of roads and construction of 22 kV power lines. The concurrence with the planned road R2 has a cumulative effect in some sections.</p> <p>In the section Zvolen - Filakovo, the route is running on the border of SPA Poľana and in the vicinity of the SAC Rohy, it is crossing the northern tip of the SPA Poiplie.</p> <p>In the section Filakovo - Moldava nad Bodvou, the route is running in a contact with the border of SKCHVU003 Cerová vrchovina-Porimavie, which is marginally crossed by the route in several section. It crosses the SPA Slovenský kras, in the route corridor of 1 000 meters, there are several SAC (SAC Slaná, SAC Plešivské stránne,</p>

<b>Railway line 160</b>	<b>Territorial sector No.9: Zvolen - Košice</b>
	<p>SAC Pod Strážnym hrebeňom, SAC Brzotínske skaly, SAC Plešivská planina, SAC Hrušovská lesostep, SAC Horný vrch, SAC Palanta). Within the optimisation of the route (change of the superstructure position), and within the renewal of bridges and construction of the electric contact line, a contact with some Natura 2000 sites is likely to occur (reconstruction of bridges over SKUEV0398 Slaná).</p> <p>In the section Haniska pri Košiciach - Moldava nad Bodvou, the route is passing through the western spur of the SPA Košická kotlina. The planned 22 kV power line KTM Veľká Ida - Elektrická stanica 110 kV/22 kV in Haniska pri Košiciach should be also running through the SPA Košická kotlina.</p>
Assessment of impact on the subject of protection	<p>Electrification of tracks does not belong to activities, which could negatively affect the favourable conservation status of bird species habitats of Community importance representing the subject of protection in the SPA. In the technical literature, which is quite comprehensively addressing the problem of injuries and kills of birds on contact line poles as well as on the electric wires, there is no described case of an injury or death of birds on railway contact lines in contrast to the electric lines with voltage of 22 kV and higher. It is possible to state that the electrification will not have a significant negative impact on subjects of protection within the SPA.</p> <p>Concerning the planned power line Veľká Ida - electric station 110 kV/22 kV in Haniska pri Košiciach, it includes the installation of barriers on the line consoles on poles in order to minimise the impact on subjects of protection of this protected area. The area concerned is not an important foraging, habitation and resting place for different animal species occurring in the wider area. Potentially affected by the impact of the implementation of the proposed change of activity are all animal species occurring in the territory concerned. Impacts during the construction and implementation such as vibration, lighting, noise, dustiness and possible emergencies, will have negligible effect on the fauna in the area. This means that the implementation of planned activities does not imply a significant threat, or violation of the Natura 2000 sites subject of protection.</p>
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	An appropriate assessment of impacts on protection subjects and integrity of Natura 2000 areas has not been conducted.
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.

Table 41 Evaluation of impacts in the Territorial sector No.13

<b>Railway line 131</b>	<b>Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno</b>
Affected Natura 2000 sites	<p>SKUEV0017 Pri Orechovom rade</p> <p>SKUEV0010 Komárňanské slanisko</p> <p>SKUEV0099 Pavelské slanisko</p> <p>SKCHVU012 Lehnice</p>
Character of collision	Double-tracking implies a land take, what could affect some of the Natura 2000 sites. In the route corridor (1 000 m), there are Special Areas of Conservation Pri Orechovom rade, Komárňanské slanisko, Pavelské slanisko and Lehnice (in a contact).
Assessment of impact on the subject of protection	Impact on Natura 2000 sites is assessed as less significant. Habitats, which are the reason of the declaration of these sites are mostly the priority ones. The electrification itself does not imply an impact on habitats, only during the construction there can be some indirect effects. During the electrification of the track there will be a construction of traction poles. Injuries and killings of birds on railway contact lines have not been recorded, in contrast to the electric lines with voltage of 22 kV and higher. It implies that the electrification of tracks does not belong to activities, which could significantly negatively affect the favourable conservation status of bird species habitats of Community importance representing the subject of protection in the SPA.
Impact level	-1
Status of the assessment according to the Art. 6(3) and 6(4)	The assessment according to Art. 6(3) and 6(4) of the Habitats Directive has not been conducted.

<b>Railway line</b> <b>131</b> <b>Railway line 131</b>	<b>Territorial sector No.13: Bratislava Nové Mesto - Dunajská Streda - Komárno</b>
Recommended further actions in terms of the Methodology on provisions of Art. 6(3) and 6(4)	Within the further investment preparation an appropriate assessment of impacts on Natura 2000 sites from the perspective of protection objectives of such sites in accordance with Articles 6(3) and 6(4) of the Habitats Directive shall be necessary.

### Summary evaluation of Measure 3. Electrification of major lines

Measure 3. Electrification of major lines does not belong to activities, which could significantly negatively affect the favourable conservation status of bird species habitats of Community importance representing the subject of protection in the SPA and does not constitute a serious threat and impacts on the subjects of protection and the integrity of Natura 2000 sites, although some sections of lines are in a direct contact with them. Injuries and killings of birds on railway contact lines have not been recorded, in contrast to the electric lines with voltage of 22 kV. The direct take of protected habitats may occur within the implementation of double-tracking, in case of a take it is necessary to assess the impact on populations of species and on the integrity of affected territories by an appropriate assessment under Art. 6(3) and 6(4) of the Habitats Directive.

## 5.3 Intermodal transport

### Measure 1. Intermodal Transport Terminals

Table 42 Projects included in the measure

Territorial sector		Project	
Number	Localisation	Number	Section
6	Košice	25	Intermodal Transport Terminal Košice, stage I. of construction
12	Leopoldov	26	Intermodal Transport Terminal Leopoldov, stage I. of construction
1	Bratislava	28	Intermodal Transport Terminal Bratislava, stage I. of construction
4	Žilina	29	Intermodal Transport Terminal Žilina, stage I. of construction

### Summary evaluation of Measure 1. Intermodal Transport Terminals

Measure 1. Intermodal Transport Terminals is not in a collision with any Natura 2000 sites, the assessment of the measure is irrelevant.

## 5.4 Air transport

### Measure 1. Upgrading, construction and maintenance of airport infrastructure within the TEN-T

Table 43 Projects included in the measure

Territorial sector		Project		
Number	Localisation	Number	Airport	Section
1	Bratislava	1	M. R. Štefánik Airport Bratislava	Modernization and extension of RWY 13/31 at M. R. Štefánik airport in Bratislava
21	Poprad-Vysoké Tatry	2	Poprad - Tatry	Modernization RWY a TWY at Poprad - Tatry airport
6	Košice	3	Košice	Terminal for air cargo services at Košice airport
		4	Košice	Hangar for aircrafts of code mark "C" a "D" at Košice airport

***Summary evaluation of Measure 1. Upgrading, construction and maintenance of airport infrastructure within the TEN-T***

Measure 1. Upgrading, construction and maintenance of airport infrastructure within the TEN-T is not in a collision with any Natura 2000 sites, the assessment of the measure is irrelevant.

**1.9 5.4 Inland waterway transport**

***Measure 1. Implementation of technical measures to remove barriers and resolving the navigability of the Danube river (r. km 1 880.260 - 1 862.000)***

The localisation of the measure is still unknown, there are no available details that would enable the assessment of the impact on the Natura 2000 sites.

## 6. Subjects of protection in affected Natura 2000 sites - summary table

Following tables include SAC and SPA sorted by the code in an ascending order.

Table 44 Overview of subjects of protection in affected Special Areas of Conservation

Name and code of affected SAC	Habitats	Species
SKUEV0010 Komárňanské slanisko	Inland salt meadows (1340)	0
SKUEV0017 Pri Orechovom rade	Inland salt meadows (1340) and Pannonic salt steppes and salt marshes (1530).	0
SKUEV0048 Dukla	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), <i>Asperulo-Fagetum</i> beech forests (9130), <i>Luzulo-Fagetum</i> beech forests (9110), Alkaline fens (7230), Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) (7220), Transition mires and quaking bogs (7140), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) (6410), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (important orchid sites) (6210), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130)	<i>Liparis loeselii</i> , Jersey Tiger ( <i>Euplagia quadripunctaria</i> ), <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Large Copper ( <i>Lycaena dispar</i> ), European ground beetle ( <i>Carabus variolosus</i> ), Yellow-Bellied Toad ( <i>Bombina variegata</i> ), Northern crested newt ( <i>Triturus cristatus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ) and Grey wolf ( <i>Canis lupus</i> ).
SKUEV0054 Cudenínsky močiar	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430)	Large Copper ( <i>Lycaena dispar</i> ).
SKUEV0055 Ipeľské hony	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430)	Large Copper ( <i>Lycaena dispar</i> )
SKUEV0062 Príboj	Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0)	Violet click beetle ( <i>Limoniscus violaceus</i> ), Stag beetle ( <i>Lucanus cervus</i> ), <i>Cerambyx cerdo</i> , <i>Osmoderma eremita</i> , <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), <i>Stephanopachys substriatus</i> , Yellow-Bellied Toad ( <i>Bombina variegata</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Bechstein's bat ( <i>Myotis bechsteinii</i> ).
SKUEV0084 Zátoň	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0)	<i>Proterorhinus marmoratus</i> , European bitterling ( <i>Rhodeus sericeus amarus</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), European fire-bellied toad ( <i>Bombina orientalis</i> ), European Beaver ( <i>Castor fiber</i> ) and European otter ( <i>Lutra lutra</i> ).
SKUEV0086 Krivé Hrabiny	Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Pannonian-Balkan turkey oak – sessile oak forests (91M0) and Euro-Siberian steppic woods with <i>Quercus</i> spp (91I0).	0
SKUEV0089 Martinský les	Euro-Siberian steppic woods with <i>Quercus</i> spp (91I0), Pannonian woods with <i>Quercus pubescens</i> , Pannonian-Balkan turkey oak – sessile oak forests	<i>Probatiscus subrugosus</i> and <i>Polyommatus eroides</i> .
SKUEV0095	Pannonic salt steppes and salt marshes (1530), Inland salt	European fire-bellied toad ( <i>Bombina</i>

Name and code of affected SAC	Habitats	Species
Panské lúky	meadows (1340)	<i>bombina</i> ).
SKUEV0097 Palárikovské lúky	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Inland salt meadows (1340)	<i>Cirsium brachycephalum</i> and European fire-bellied toad ( <i>Bombina bombina</i> ).
SKUEV0099 Pavelské slanisko	Inland salt meadows (1340).	0
SKUEV0104 Homol'ské Karpaty	Bog woodland (91D0), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnus incanae</i> , <i>Salix albae</i> ) (91E0), Tilio-Acerion forests of slopes, screes and ravines (9180), Asperulo-Fagetum beech forests (9130), Luzulo-Fagetum beech forests (9110), Caves not open to the public (8310), Medio-European limestone beech forests of the Cephalantho-Fagion (9150), Sub-Pannonic steppic grasslands (6240)	<i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Violet click beetle ( <i>Limoniscus violaceus</i> ), <i>Lucanus cervus</i> , <i>Graphoderus bilineatus</i> , Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), <i>Polyommatus eroides</i> , Large White-faced Darter ( <i>Leucorrhinia pectoralis</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Schreibers' bat ( <i>Miniopterus schreibersii</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0109 Rajtopíky	Asperulo-Fagetum beech forests (9130), Alkaline fens (7230), Petrifying springs with tufa formation (Cratoneurion) (7220), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Medio-European limestone beech forests of the Cephalantho-Fagion (9150), Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190)	Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), <i>Pulsatilla slavaica</i> , Grey wolf ( <i>Canis lupus</i> ), and Eurasian lynx ( <i>Lynx lynx</i> )
SKUEV0117 Abrod	Alkaline fens (7230), Transition mires and quaking bogs (7140), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Depressions on peat substrates of the Rhynchosporion (7150), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinia caerulea</i> ) (6410)	Marsh gladiolus ( <i>Gladiolus palustris</i> ), <i>Cirsium brachycephalum</i> , Stag beetle ( <i>Lucanus cervus</i> ), <i>Osmoderma eremita</i> , European ground beetle ( <i>Carabus variolosus</i> ), Scarce Large Blue ( <i>Maculinea teleius</i> ), Dusky Large Blue ( <i>Maculinea nausithous</i> ), Large Copper ( <i>Lycaena dispar</i> ), European weatherfish ( <i>Misgurnus fossilis</i> ), European bitterling ( <i>Rhodeus sericeus amarus</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ), European Beaver ( <i>Castor fiber</i> ) and Greater mouse-eared bat ( <i>Myotis myotis</i> ).
SKUEV0121 Marhecké rybníky	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation (3260), Naural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation (3150)	White-finned Gudgeon ( <i>Gobio albipinnatus</i> ), European beaver ( <i>Castor fiber</i> ) and Western barbastelle ( <i>Barbastella barbastellus</i> ).
SKUEV0128 Rokoš	Calcareous rocky slope with chasmophytic vegetation (8210), Medio-European calcareous scree of hill and montane levels (8160), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Pannonian woods with <i>Quercus pubescens</i> (91H0), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the Cephalantho-Fagion (9150), Asperulo-Fagetum beech forests (9130), Caves not open to public (8310)	Adriatic Lizard Orchid ( <i>Himantoglossum adriaticum</i> ), <i>Pulsatilla subslavica</i> , Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Large Copper ( <i>Lycaena dispar</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), Brown bear ( <i>Ursus arctos</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0139 Gánovské slaniská	Alkaline fens (7230), Inland salt meadows (1340)	Violet Copper ( <i>Lycaena helle</i> ) and Greater mouse-eared bat ( <i>Myotis myotis</i> ).
SKUEV0147	Hydrophilous tall herb fringe communities of plains and of the	European ground beetle ( <i>Carabus variolosus</i> ),



Name and code of affected SAC	Habitats	Species
Žarnovica	montane to alpine levels (6430), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (91E0)	<i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ) and European otter ( <i>Lutra lutra</i> )
SKUEV0164 Revúca	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Petrifying springs with tufa formation (Cratoneurion) (7220), Alkaline fens (7230), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510)	Bellflower ( <i>Campanula serrata</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), European ground beetle ( <i>Carabus variolosus</i> ), <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Carpathian schnauzer ( <i>Pseudogaurina excellens</i> ), European bullhead ( <i>Cottus gobio</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), European otter ( <i>Lutra lutra</i> ).
SKUEV0167 Bezodné	Water courses of plain to montane levels with the <i>Ranuncion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260), Transition mires and quaking bogs (7140), Natural dystrophic lakes and ponds (3160), <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) (6410)	Marsh gladiolus ( <i>Gladiolus palustris</i> ), <i>Cucujus cinnaberinus</i> , European mudminnow ( <i>Umbra krameri</i> ).
SKUEV0184 Burdov	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites) (6210), Pannonian-Balkan turkey oak – sessile oak forests (91M0), Pannonian woods with <i>Quercus pubescens</i> (91H0), Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510)	Russian bugloss ( <i>Echium russicum</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), <i>Dioszeghyana schmidtii</i> , <i>Bolbelasmus unicornis</i> , European bullhead ( <i>Cottus gobio</i> ), streber ( <i>Zingel streber</i> ), Balon's ruffe ( <i>Gymnocephalus baloni</i> ), <i>Proterorhinus marmoratus</i> , <i>Sabanejewia aurata</i> , European bitterling ( <i>Rhodeus sericeus amarus</i> ), Danube gudgeon ( <i>Gobio uranoscopus</i> ), White-finned Gudgeon ( <i>Gobio albipinnatus</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ), European otter ( <i>Lutra lutra</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0197 Salatin	Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Acidophilous <i>Picea</i> forests of the montane to alpine levels ( <i>Vaccinio-Piceetea</i> ) (9410), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), <i>Asperulo-Fagetum</i> beech forests (9130), Caves not open to public (8310), Calcareous rocky slope with chasmophytic vegetation (8210), Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) (8120), Alkaline fens (7230), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Alpine and subalpine calcareous grasslands (6170), Bushes with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> ( <i>Mugo-Rhododendretum hirsuti</i> ) (4070)	Bellflower ( <i>Campanula serrata</i> ), Slovak pasque flower ( <i>Pulsatilla slavnica</i> ), Carpathian glossy pink ( <i>Dianthus nitidus</i> ), <i>Mannia triandra</i> , <i>Boros schneideri</i> , <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), European bullhead ( <i>Cottus gobio</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ) and Grey wolf ( <i>Canis lupus</i> ).
SKUEV0198 Zvolen	Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Acidophilous <i>Picea</i> forests of the montane to alpine levels ( <i>Vaccinio-Piceetea</i> ) (9410), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), <i>Asperulo-Fagetum</i> beech forests (9130), Caves not open to public (8310), Medio-European calcareous scree of hill and montane levels (8160), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130)	Slovak pasque flower ( <i>Pulsatilla slavnica</i> ), Carpathian glossy pink ( <i>Dianthus nitidus</i> ), Bellflower ( <i>Campanula serrata</i> ), Purple cyclamen ( <i>Cyclamen fatrense</i> ), <i>Boros schneideri</i> , Eastern egger ( <i>Eriogaster catax</i> ), <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Pond bat ( <i>Myotis</i>

Name and code of affected SAC	Habitats	Species
		dasycneme), Western barbastelle ( <i>Barbastella barbastellus</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ) and Grey wolf ( <i>Canis lupus</i> ).
SKUEV0217 Ondriašov potok	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Water courses of plain to montane levels with the <i>Ranunculum fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation (3260), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0)	European Beaver ( <i>Castor fiber</i> ), <i>Proterorhinus marmoratus</i> , European bitterling ( <i>Rhodeus sericeus amarus</i> ), <i>Cordulegaster heros</i> , Green club-tailed dragonfly ( <i>Ophiogomphus cecilia</i> ).
SKUEV0218 Močiarka	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0), Water courses of plain to montane levels with the <i>Ranunculum fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation (3260)	<i>Cordulegaster heros</i> , <i>Cucujus cinnaberinus</i> , European mudminnow ( <i>Umbra krameri</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), European Beaver ( <i>Castor fiber</i> ).
SKUEV0221 Varínka	Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) (7220), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0)	Bellflower ( <i>Campanula serrata</i> ), European ground beetle ( <i>Carabus variolosus</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Northern crested newt ( <i>Triturus cristatus</i> ), European otter ( <i>Lutra lutra</i> ) and Greater mouse-eared bat ( <i>Myotis myotis</i> ).
SKUEV0231 Brekovský Hradný vrch	Calcareous rocky slopes with chasmophytic vegetation (8210), Pannonian woods with <i>Quercus pubescens</i> (91H0), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (6210), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130)	Large Copper ( <i>Lycaena dispar</i> ), Great capricorn beetle ( <i>Cerambyx cerdo</i> ), European ground beetle ( <i>Carabus variolosus</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0238 Veľká Fatra	Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), Alpine and subalpine calcareous grasslands (6170), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe) (6230), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Mountain hay meadows (6520), Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) (7220), Alkaline fens (7230), Caves not open to public (8310), <i>Luzulo-Fagetum</i> beech forests (9110), Bushes with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> ( <i>Mugo-Rhododendretum hirsuti</i> ) (4070), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), Calcareous rocky slope with chasmophytic vegetation (8210), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Acidophilous <i>Picea</i> forests of the montane to alpine levels ( <i>Vaccinio-Piceetea</i> ) (9410), Alluvial forests Mixed ash-alder alluvial forests of temperate and Boreal Europe (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190), Transition mires and quaking bogs (7140), Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) (8120), Medio-European calcareous scree of hill and montane levels (8160), <i>Asperulo-</i>	Intermediate pasque flower ( <i>Pulsatilla subslavica</i> ), Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), Bellflower ( <i>Campanula serrata</i> ), Purple cyclamen ( <i>Cyclamen fatrense</i> ), Slovak pasque flower ( <i>Pulsatilla slavica</i> ), Carpathian glossy pink ( <i>Dianthus nitidus</i> ), ( <i>Mannia triandra</i> ), Lady bell ( <i>Adenophora lilifolia</i> ), Green club-tailed dragonfly ( <i>Ophiogomphus cecilia</i> ), <i>Cucujus cinnaberinus</i> , European ground beetle ( <i>Carabus variolosus</i> ), <i>Rhysodes sulcatus</i> , Stag beetle ( <i>Lucanus cervus</i> ), Large copper ( <i>Lycaena dispar</i> ), Dusky large blue ( <i>Maculinea nausithous</i> ), <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Violet click beetle ( <i>Limoniscus violaceus</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Eastern egger ( <i>Eriogaster catax</i> ), Fenton's wood white ( <i>Leptidea morsei</i> ), Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ), Carpathian schnauzer ( <i>Pseudogauritina excellens</i> ), Danube gudgeon ( <i>Gobio uranoscopus</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ), Grey wolf ( <i>Canis lupus</i> ), Tatra

Name and code of affected SAC	Habitats	Species
	Fagetum beech forests (9130)	pine vole ( <i>Microtus tatricus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Lesser mouse-eared bat ( <i>Myotis blythi</i> ).
SKUEV0243 ORAVA	The subjects of protection in the SAC Orava are the water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachion</i> vegetation (3260)	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), European otter ( <i>Lutra lutra</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Northern crested newt ( <i>Triturus cristatus</i> ), European bullhead ( <i>Cottus gobio</i> ), streber ( <i>Zingel streber</i> ), Danube gudgeon ( <i>Gobio uranoscopus</i> ), Danube salmon ( <i>Hucho hucho</i> ), Fenton's wood white ( <i>Leptidea morsei</i> ).
SKUEV0247 Rohy	Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Tilio-Acerion forests of slopes, screes and ravines (9180), Pannonian woods with <i>Quercus pubescens</i> (91H0)	stag beetle ( <i>Lucanus cervus</i> ).
SKUEV0250 Krivošťianka	Pannonian woods with <i>Quercus pubescens</i> (91H0), Calcareous rocky slopes with chasmophytic vegetation (8210), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the <i>Cephalantho-Fagion</i> (9150), <i>Asperulo-Fagetum</i> beech forests (9130), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210)	<i>Stenobothrus eurasius</i> , Large Copper ( <i>Lycaena dispar</i> ), Rosalia longicorn ( <i>Rosalia alpina</i> ), Great capricorn beetle ( <i>Cerambyx cerdo</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0252 Malá Fatra	Siliceous rocky slopes with chasmophytic vegetation (8220), with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> ( <i>Mugo-Rhododendretum hirsuti</i> ) (4070), Sub-Arctic <i>Salix</i> spp. Scrub (4080), Alpine and subalpine calcareous grasslands (6170), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites), Hygrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Mountain hay meadows (6520), Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) (7220), Alkaline fens (7230), Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) (8120), Alpine and Boreal heaths (4060), Calcareous rocky slopes with chasmophytic vegetation (8210), Alpine rivers and their ligneous vegetation with <i>Salix elaeagnos</i> (3240), Caves not open to public (8310), Luzulo-Fagetum beech forests (9110), <i>Asperulo-Fagetum</i> beech forests (9130), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130), Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe) (6230), Alluvial forests Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Medio-European calcareous scree of hill and montane levels (8160)	Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), Bellflower ( <i>Campanula serratata</i> ), Carpathian Tozzia ( <i>Tozzia carpathica</i> ), <i>Aconitum firmum</i> subsp. <i>moravicum</i> , Slovak pasque flower ( <i>Pulsatilla slavica</i> ), Carpathian glossy pink ( <i>Dianthus nitidus</i> ), <i>Cucujus cinnaberinus</i> , <i>Carabus zawadzskii</i> , Stag beetle ( <i>Lucanus cervus</i> ), Rosalia longicorn ( <i>Rosalia alpina</i> ), European ground beetle ( <i>Carabus variolosus</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), Violet Copper ( <i>Lycaena helle</i> ), Carpathian schnauzer ( <i>Pseudogaurina excellens</i> ), <i>Phryganophilus ruficollis</i> , Danube lamprey ( <i>Eudontomyzon danfordi</i> ), European bullhead ( <i>Cottus gobio</i> ), Northern crested newt ( <i>Triturus cristatus</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Grey wolf ( <i>Triturus cristatus</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).

Name and code of affected SAC	Habitats	Species
SKUEV0253 Váh	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation (3260)	Fenton's wood white ( <i>Leptidea morsei</i> ), Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ), European bullhead ( <i>Cottus gobio</i> ), Streber ( <i>Zingel streber</i> ), Danube gudgeon ( <i>Gobio uranoscopus</i> ), Danube salmon ( <i>Hucho hucho</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), European otter ( <i>Lutra lutra</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0254 Močiar	Alkaline fens (7230), Petrifying springs with tufa formation (Cratoneurion) (7220), Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae (7210)	Fenton's wood white ( <i>Leptidea morsei</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ) and Yellow-bellied toad ( <i>Bombina variegata</i> )
SKUEV0256 Strážovské vrchy	Luzulo-Fagetum beech forests (9110), Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), Hygrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Petrifying springs with tufa formation (Cratoneurion) (7220), Alkaline fens (7230), Medio-European calcareous scree of hill and montane levels (8160), Alpine and subalpine calcareous grasslands (6170), Caves not open to public (8310), Rupicolous calcareous or basophilic grasslands of the <i>Alysso-Sedion albi</i> (6110), <i>Asperulo-Fagetum</i> beech forests (9130), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Pannonian woods with <i>Quercus pubescens</i> (91H0), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Alluvial forests Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130), Calcareous rocky slope with chasmophytic vegetation (8210)	Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), Intermediate pasque flower ( <i>Pulsatilla subslavica</i> ), <i>Aconitum firmum</i> subsp. <i>moravicum</i> , Carpathian glossy pink ( <i>Dianthus nitidus</i> ), <i>Vertigo geyeri</i> , Large Copper ( <i>Lycaena dispar</i> ), <i>Carabus variolosus</i> , <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), <i>Cucujus cinnaberinus</i> , Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), <i>Polyommatus eroides</i> , Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Mouse-eared bat ( <i>Myotis blythi</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0257 Alúvium Ipfa	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Natural eutrophic lakes with Magnopotamion or Hydrocharition type vegetation (3150), Alluvial meadows of river valleys of the <i>Cnidion dubii</i> (6440)	Large Copper ( <i>Lycaena dispar</i> ), Thick shelled river mussel ( <i>Unio crassus</i> ), Streber ( <i>Zingel streber</i> ), Kessler's gudgeon ( <i>Gobio kessleri</i> ), White-finned Gudgeon ( <i>Gobio albipinnatus</i> ) and European otter ( <i>Lutra lutra</i> ).
SKUEV0260 Mäsiarsky bok	Pannonian woods with <i>Quercus pubescens</i> (91H0), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), <i>Asperulo-Fagetum</i> beech forests (9130)	stag beetle ( <i>Lucanus cervus</i> ), <i>Eriogaster catax</i> and European otter ( <i>Lutra lutra</i> ).
SKUEV0261 Dedinská hora	Pannonian woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510)	stag beetle ( <i>Lucanus cervus</i> ).
SKUEV0266 Skalka	Euro-Siberian steppic woods with <i>Quercus</i> spp. (9110), Pannonian woods with <i>Quercus pubescens</i> (91H0), Pannonian woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), <i>Asperulo-Fagetum</i> beech forests (9130), <i>Luzulo-Fagetum</i> beech forests (9110),	<i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Violet click beetle ( <i>Limoniscus violaceus</i> ), <i>Lucanus cervus</i> , <i>Carabus variolosus</i> , Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), <i>Polyommatus eroides</i> , European bullhead ( <i>Cottus gobio</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ),

Name and code of affected SAC	Habitats	Species
	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510)	Brown bear ( <i>Ursus arctos</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0269 Ostrovné lúčky	Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites) (6210), Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation (3150)	Great capricorn beetle ( <i>Cerambyx cerdo</i> ), <i>Cucujus cinnaberinus</i> , stag beetle ( <i>Lucanus cervus</i> ), Large White-faced Darter ( <i>Leucorrhinia pectoralis</i> ), European bullhead ( <i>Cottus gobio</i> ), Streber ( <i>Zingel streber</i> ), Balon's ruffe ( <i>Gymnocephalus baloni</i> ), <i>Proterorhinus marmoratus</i> , European bitterling ( <i>Rhodeus sericeus amarus</i> ), Kessler's gudgeon ( <i>Gobio kessleri</i> ), White-finned Gudgeon ( <i>Gobio albipinnatus</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ), Danube crested newt ( <i>Triturus dobrogicus</i> ), European Beaver ( <i>Castor fiber</i> ) and Greater mouse-eared bat ( <i>Myotis myotis</i> ).
SKUEV0279 Šúr	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0), <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) (6410), Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation (3150), Inland salt meadows (1340)	<i>Cirsium brachycephalum</i> , Great capricorn beetle ( <i>Cerambyx cerdo</i> ), Violet click beetle ( <i>Limonicus violaceus</i> ), Large Copper ( <i>Lycaena dispar</i> ), stag beetle ( <i>Lucanus cervus</i> ), <i>Polyommatus eroides</i> , European fire-bellied toad ( <i>Bombina bombina</i> ), Danube crested newt ( <i>Triturus dobrogicus</i> ).
SKUEV0295 Biskupické luhy	Pannonian woods with <i>Quercus pubescens</i> (91H0), Pannonic woods with <i>Quercus petraea</i> and <i>Carpinus betulus</i> (91G0), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0)	Great capricorn beetle ( <i>Cerambyx cerdo</i> ), <i>Dioszeghyana schmidtii</i> , European bullhead ( <i>Cottus gobio</i> ), Balon's ruffe ( <i>Gymnocephalus baloni</i> ), Kessler's gudgeon ( <i>Gobio kessleri</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ) and European Beaver ( <i>Castor fiber</i> ).
SKUEV0302 Ďumbierske Nízke Tatry	Caves not open to public (8310), Bushes with <i>Pinus mugo</i> and <i>Rhododendron hirsutum</i> ( <i>Mugo-Rhododendretum hirsuti</i> ) (4070), Alpine and subalpine calcareous grasslands (6170), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), tall herb fringe communities of plains and of the montane to alpine levels (6430), Hygrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Active raised bogs (7110), Transition mires and quaking bogs (7140), Alkaline fens (7230), Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) (8110), Alpine and Boreal heaths (4060), Siliceous rocky slopes with chasmophytic vegetation (8220), Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietia rotundifolia</i> ) (8120), <i>Luzulo-Fagetum</i> beech forests (9110) <i>Asperulo-Fagetum</i> beech forests (9130), Medio-European subalpine beech woods with <i>Acer</i> and <i>Rumex arifolius</i> (9140), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Bog woodland (91D0), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Acidophilous <i>Picea</i> forests of the montane to alpine levels ( <i>Vaccinio-Piceetia</i> ) (9410), Alluvial forests Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Siliceous alpine and boreal grasslands (6150), Calcareous rocky slopes with chasmophytic vegetation (8210)	<i>Ochyraea tatrensis</i> , Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), Bellflower ( <i>Campanula serrata</i> ), Purple cyclamen ( <i>Cyclamen fatrense</i> ), Slovak pasque flower ( <i>Pulsatilla slavica</i> ), Carpathian glossy pink ( <i>Dianthus nitidus</i> ), <i>Scapania massalongi</i> , <i>Mannia triandra</i> , <i>Cucujus cinnaberinus</i> , Stone crayfish ( <i>Austropotamobius torrentium</i> ), Large copper ( <i>Lycaena dispar</i> ), Stag beetle ( <i>Lucanus cervus</i> ), <i>Rosalia longicorn</i> ( <i>Rosalia alpina</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), European bullhead ( <i>Cottus gobio</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Tatra chamois ( <i>Rupicapra rupicapra tatrica</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), European otter ( <i>Lutra lutra</i> ), Brown bear ( <i>Ursus arctos</i> ), Tatra pine vole ( <i>Microtus tatricus</i> ), Alpine marmot ( <i>Marmota marmota latirostris</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0305	Mountain hay meadows (6520), Calcareous rocky slope with	Lady's slipper orchid ( <i>Cypripedium calceolus</i> ),



Name and code of affected SAC	Habitats	Species
Choč	chasmophytic vegetation (8210), Calcareous and calcshist screes of the montane to alpine levels (Thlaspietia rotundifolia) (8120), Acidophilous Picea forests of the montane to alpine levels (Vaccinio-Piceetia) (9410), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the Cephalantho-Fagion (9150), Medio-European subalpine beech woods with Acer and Rumex arifolius (9140), Asperulo-Fagetum beech forests (9130), Caves not open to public (8310), Bushes with Pinus mugo and Rhododendron hirsutum (Mugo-Rhododendretum hirsuti) (4070)	Slovak pasque flower (Pulsatilla slavica), Carpathian glossy pink (Dianthus nitidus), Yellow-bellied toad (Bombina variegata), Eurasian lynx (Lynx lynx), European otter (Lutra lutra), Brown bear (Ursus arctos), Grey wolf (Canis lupus), Greater mouse-eared bat (Myotis myotis) and Western barbastelle (Barbastella barbastellus).
SKUEV0309 Poprad	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation (3260)	Danube salmon (Hucho hucho), European brook lamprey (Lampetra planeri) and European otter (Lutra lutra).
SKUEV0312 Devínske alúvium Moravy	Rivers with muddy banks with Chenopodium rubri p.p. and Bidentia p.p. vegetation (3270), Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) (91E0), Alluvial meadows of river valleys of the Cnidion dubii (6440), Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation (3150)	Thick shelled river mussel (Unio crassus), Cucujus cinnaberinus, Large Copper (Lycaena dispar), Green club-tailed dragonfly (Ophiogomphus cecilia), Ramshorn snail (Anisus vorticulus), Streber (Zingel streber), Balon's ruffe (Gymnocephalus baloni), Proterorhinus marmoratus, Spined loach (Cobitis taenia), bitterling (Rhodeus sericeus amarus), Kessler's gudgeon (Gobio kessleri), White-finned Gudgeon (Gobio albipinnatus), European fire-bellied toad (Bombina orientalis), Danube crested newt (Triturus cristatus), Western barbastelle (Barbastella barbastellus), Greater mouse-eared bat (Myotis myotis), European otter (Lutra lutra) and European Beaver (Castor fiber).
SKUEV0313 Devínske jazero	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) (91E0), Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmion minoris) (91F0), Alluvial meadows of river valleys of the Cnidion dubii (6440), Natural eutrophic lakes with Magnopotamion or Hydrocharition type vegetation (3150)	and species of European importance: Marsh angelica (Angelica palustris), Cucujus cinnaberinus, Scarce Large Blue (Maculinea teleius), Dusky Large Blue (Maculinea nausithous), Large Copper (Lycaena dispar), Green club-tailed dragonfly (Ophiogomphus cecilia), Thick shelled river mussel (Unio crassus), European bullhead (Cottus gobio), Streber (Zingel streber), Balon's ruffe (Gymnocephalus baloni), Proterorhinus marmoratus, Spined loach (Cobitis taenia), bitterling (Rhodeus sericeus amarus), Kessler's gudgeon (Gobio kessleri), White-finned Gudgeon (Gobio albipinnatus), European fire-bellied toad (Bombina orientalis), Danube crested newt (Triturus cristatus), European otter (Lutra lutra), European Beaver (Castor fiber) and Greater mouse-eared bat (Myotis myotis).
SKUEV0314 Morava	Rivers with muddy banks with Chenopodium rubri p.p. and Bidentia p.p. vegetation (3270), Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation (3150)	Dianthus praecox subsp. lumnitzeri, Cucujus cinnaberinus, False Ringlelet (Coenonympha oedippus), Scarce Large Blue (Maculinea teleius), Dusky Large Blue (Maculinea nausithous), Large Copper (Lycaena dispar), Green club-tailed dragonfly (Ophiogomphus cecilia), Thick shelled river mussel (Unio crassus), Ramshorn snail (Anisus vorticulus), Asp (Aspius aspius), European bullhead (Cottus gobio), Streber (Zingel streber), Schraetzer (Gymnocephalus schraetzer), Balon's ruffe (Gymnocephalus baloni), Proterorhinus marmoratus, Sabanejewia aurata, European weatherfish (Misgurnus fossilis), Spined loach (Cobitis taenia),

Name and code of affected SAC	Habitats	Species
		bitterling ( <i>Rhodeus sericeus amarus</i> ), Sichel ( <i>Pelecus cultratus</i> ), Kessler's gudgeon ( <i>Gobio kessleri</i> ), White-finned Gudgeon ( <i>Gobio albipinnatus</i> ), European mudminnow ( <i>Umbra krameri</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ), Danube crested newt ( <i>Triturus dobrogicus</i> ), European otter ( <i>Lutra lutra</i> ), European Beaver ( <i>Castor fiber</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ) and Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ).
SKUEV0328 Stredné Pohornádie	Tilio-Acerion forests of slopes, screes and ravines (9180), Sub-Pannonic steppic grasslands (6240), Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Calcareous rocky slope with chasmophytic vegetation (8210), Caves not open to public (8310), Luzulo-Fagetum beech forests (9110), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0), Alluvial forests Mixed ash-alder alluvial forests of temperate and Boreal Europe ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (91E0), Pannonian woods with <i>Quercus pubescens</i> (91H0), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Medio-European calcareous scree of hill and montane levels (8160), Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190), Galio-Carpinetum oak-hornbeam forests (9170), Asperulo-Fagetum beech forests (9130)	<i>Iris aphylla</i> subsp. <i>hungarica</i> , Slovak pasque flower ( <i>Pulsatilla slavica</i> ), Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Great capricorn beetle ( <i>Cerambyx cerdo</i> ), Jersey tiger ( <i>Callimorpha quadripunctaria</i> ), European otter ( <i>Lutra lutra</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Bechstein's bat ( <i>Myotis bechsteini</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0343 Plešivské stráně	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites) (6210), Pannonian woods with <i>Quercus pubescens</i> (91H0), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150).	Intermediate pasque flower ( <i>Pulsatilla subslavica</i> ), Austrian dragonhead ( <i>Dracocephalum austriacum</i> ), Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Great capricorn beetle ( <i>Cerambyx cerdo</i> ), Fenton's wood white ( <i>Leptidea morsei</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ) and Mediterranean horseshoe bat ( <i>Rhinolophus euryale</i> ).
SKUEV0346 Pod Strážnym hrebeňom	Tilio-Acerion forests of slopes, screes and ravines (9180), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites) (6210), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150), Pannonian woods with <i>Quercus pubescens</i> (91H0), Caves not open to the public (8310)	<i>Ferula sadleriana</i> , Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) and Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0350 Brzotínske skaly	Pannonian woods with <i>Quercus pubescens</i> (91H0), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (6210), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Tilio-Acerion forests of slopes, screes and ravines (9180), European limestone beech forests of the Cephalanthero-Fagion (9150), Asperulo-Fagetum beech forests (9130), Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190)	Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Lady's slipper orchid ( <i>Cypripedium calceolus</i> ), Intermediate pasque flower ( <i>Pulsatilla subslavica</i> ), Stag beetle ( <i>Lucanus cervus</i> ), Fenton's wood white ( <i>Leptidea morsei</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ).
SKUEV0352	Sub-Pannonic steppic grasslands (6240), Semi-natural dry	Greater Pasque Flower ( <i>Pulsatilla grandis</i> ),

Name and code of affected SAC	Habitats	Species
Hrušovská lesostep	grasslands and scrubland facies on calcareous substrates (Festuco - Brometalia) (* important orchid sites) (6210), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Pannonian woods with Quercus pubescens (91H0), Caves not open to public (8310)	Eurasian lynx (Lynx lynx), Grey wolf (Canis lupus), Greater mouse-eared bat (Myotis myotis), Western barbastelle (Barbastella barbastellus), Lesser horseshoe bat (Rhinolophus hipposideros), Greater horseshoe bat (Rhinolophus ferrumequinum) and Mediterranean horseshoe bat (Rhinolophus euryale).
SKUEV0353 Plešivská planina	Pannonian woods with Quercus pubescens (91H0), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150), Asperulo-Fagetum beech forests (9130), Luzulo-Fagetum beech forests (9110), Caves not open to the public (8310), Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) (6510), Sub-Pannonic steppic grasslands (6240), Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (6210), Rupicolous pannonic grasslands (Stipo-Festucetalia pallentis) (6190)	and species of Community importance: Lady's slipper orchid (Cypripedium calceolus), Austrian dragonhead (Dracocephalum austriacum), Ferula sadleriana, Intermediate pasque flower (Pulsatilla subslavica), Greater Pasque Flower (Pulsatilla grandis), Jersey tiger (Callimorpha quadripunctaria), Fenton's wood white (Leptidea morsei), Eurasian lynx (Lynx lynx), Grey wolf (Canis lupus), Greater mouse-eared bat (Myotis myotis), Bechstein's bat (Myotis bechsteini), Western barbastelle (Barbastella barbastellus), Lesser horseshoe bat (Rhinolophus hipposideros) and Greater horseshoe bat (Rhinolophus ferrumequinum).
SKUEV0356 Horný vrch	Pannonic woods with Quercus petraea and Carpinus betulus (91G0), Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) (6510), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Sub-Pannonic steppic grasslands (6240), Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi (6110), Pannonian woods with Quercus pubescens (91H0), Tilio-Acerion forests of slopes, screes and ravines (9180), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150), Asperulo-Fagetum beech forests (9130), Luzulo-Fagetum beech forests (9110), Caves not open to public (8310), Calcareous rocky slope with chasmophytic vegetation (8210), Medio-European calcareous scree of hill and montane levels (8160), Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco - Brometalia) (* important orchid sites) (6210), Rupicolous pannonic grasslands (Stipo-Festucetalia pallentis) (6190)	Lady's slipper orchid (Cypripedium calceolus), Hungarian stool iris (Iris aphylla subsp. hungarica), Austrian dragonhead (Dracocephalum austriacum), Russian bugloss (Echium russicum), Torna goldendrop (Onosma tornensis), Purple cyclamen (Cyclamen fatrense), Slovak pennycress (Thlaspi jankae), Intermediate pasque flower (Pulsatilla subslavica), Greater pasque flower (Pulsatilla grandis), Eastern pasque flower (Pulsatilla patens), Rosalia longicorn (Rosalia alpina), Stag beetle (Lucanus cervus), Jersey tiger (Callimorpha quadripunctaria), Sadleriana pannonica, Yellow-bellied toad (Bombina variegata), Eurasian lynx (Lynx lynx), Grey wolf (Canis lupus), European ground squirrel (Spermophilus citellus), Greater mouse-eared bat (Myotis myotis), Geoffroy's bat (Myotis emarginatus), Pond bat (Myotis dasycneme), Lesser mouse-eared bat (Myotis blythi), Bechstein's bat (Myotis bechsteini), Common bent-wing bat (Miniopterus schreibersii), Western barbastelle (Barbastella barbastellus), Lesser horseshoe bat (Rhinolophus hipposideros), Greater horseshoe bat (Rhinolophus ferrumequinum) and Mediterranean horseshoe bat (Rhinolophus euryale).
SKUEV0363 Ťahan	Pannonic woods with Quercus petraea and Carpinus betulus (91G0)	Lady's slipper orchid (Cypripedium calceolus), Great capricorn beetle (Cerambyx cerdo) and Stag beetle Stag beetle (Lucanus cervus).
SKUEV0365 Dálovský močiar	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation (3150)	Stag beetle (Lucanus cervus), European fire-bellied toad (Bombina bombina) and European otter (Lutra lutra).
SKUEV0382 Turiec a Blatnický potok	Alkaline fens (7230), Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) (6510), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (6430), Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation (3260)	Damselfly (Coenagrion ornatum), Jersey tiger (Callimorpha quadripunctaria), European ground beetle (Carabus variolosus), Thick shelled river mussel (Unio crassus), Eastern egger (Eriogaster catax), Large Copper (Lycaena dispar), Green club-tailed dragonfly



Name and code of affected SAC	Habitats	Species
		(Ophiogomphus cecilia), European bullhead (Cottus gobio), Streber (Zingel streber), Spined loach (Cobitis taenia), Danube salmon (Hucho hucho), Yellow-bellied toad (Bombina variegata), Grey wolf (Triturus cristatus), Greater mouse-eared bat (Myotis myotis), Geoffroy's bat (Myotis emarginatus), Lesser horseshoe bat (Rhinolophus hipposideros) and European otter (Lutra lutra).
SKUEV0388 Vydrica	Asperulo-Fagetum beech forests (9130)	Stone crayfish (Austropotamobius torrentium), Fenton's wood white (Leptidea morsei) and Dioszeghyana schmidtii.
SKUEV0393 Dunaj	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) (91E0)	and species of Community importance: Probaticus subrugosus, Jersey tiger (Callimorpha quadripunctaria), Eastern egger (Eriogaster catax), Thick shelled river mussel (Unio crassus), Ramshorn snail (Anisus vorticulus), Striped nerite (Theodoxus transversalis), Dioszeghyana schmidtii, Bolbelasmus unicornis, Pigo (Rutilus pigus), Sichel (Pelecus cultratus), Schraetzer (Gymnocephalus schraetser), European bullhead (Cottus gobio), streber (Zingel streber), Balon's ruffe (Gymnocephalus baloni), Proterorhinus marmoratus, Sabanejewia aurata, European bitterling (Rhodeus sericeus amarus), Kessler's gudgeon (Gobio kessleri), White-finned Gudgeon (Gobio albipinnatus), European otter (Lutra lutra), European ground squirrel (Spermophilus citellus), Greater mouse-eared bat (Myotis myotis), Geoffroy's bat (Myotis emarginatus), Western barbastelle (Barbastella barbastellus), Lesser horseshoe bat (Rhinolophus hipposideros) and Greater horseshoe bat (Rhinolophus ferrumequinum).
SKUEV0398 Slaná	0	European bullhead (Cottus gobio), Mediterranean barbel (Barbus meridionalis), European otter (Lutra lutra), Greater mouse-eared bat (Myotis myotis), Geoffroy's bat (Myotis emarginatus), Lesser horseshoe bat (Rhinolophus hipposideros) and Greater horseshoe bat (Rhinolophus ferrumequinum).
SKUEV0502 Štokerauská vápenka	Euro-Siberian steppic woods with Quercus spp (9110)	Adriatic Lizard Orchid (Himantoglossum adriaticum).
SKUEV0589 Chynoriensky luh	Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmion minoris) (91F0)	Yellow-bellied toad (Bombina variegata).
SKUEV0663 Šíp	Alpine and subalpine calcareous grasslands (6170), Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco - Brometalia) (* important orchid sites) (6210), Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) (6510), Alkaline fens (7230), Calcareous rocky slope with chasmophytic vegetation (8210), Caves not open to public (8310), Luzulo-Fagetum beech forests (9110), Asperulo-Fagetum beech forests (9130), Medio-European subalpine beech woods with Acer and Rumex arifolius (9140), Medio-European limestone beech forests of the Cephalanthero-Fagion (9150), Tilio-Acerion forests of slopes, screes and ravines (9180), Western Carpathian calcicolous Pinus sylvestris forests (91Q0)	Rosalia longicorn (Rosalia alpina), Yellow-bellied toad (Bombina variegata), Lesser horseshoe bat (Rhinolophus hipposideros), Western barbastelle (Barbastella barbastellus), Eurasian lynx (Lynx lynx), European otter (Lutra lutra), Brown bear (Ursus arctos) and Grey wolf (Canis lupus), European otter (Lutra lutra), Slovak pasque flower (Pulsatilla slavica), Lady's slipper orchid (Cypripedium calceolus).

Name and code of affected SAC	Habitats	Species
SKUEV0665 Strečnianske meandre Váhu	Alpine rivers and the herbaceous vegetation along their banks (3220), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (91E0)	Yellow-bellied toad ( <i>Bombina variegata</i> ), Brown bear ( <i>Ursus arctos</i> ) and European otter ( <i>Lutra lutra</i> ).
SKUEV0667 Slnčné skaly	Objectives of conservation are habitats of Community importance: Rupicolous pannonic grasslands ( <i>Stipo-Festucetalia pallentis</i> ) (6190), Calcareous rocky slope with chasmophytic vegetation (8210), Caves not open to public (8310), <i>Asperulo-Fagetum</i> beech forests (9130), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), Western Carpathian calcicolous <i>Pinus sylvestris</i> forests (91Q0)	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Intermediate pasque flower ( <i>Pulsatilla subslavica</i> ).
SKUEV0708 Primovské skaly	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) (6510), Medio-European upland siliceous scree (8150), Siliceous rocky slope with chasmophytic vegetation (8220)	Eastern pasque flower ( <i>Pulsatilla patens</i> ).
SKUEV0737 Palanta	Subcontinental peri-Pannonic scrub (40A0), <i>Juniperus communis</i> formations on heaths or calcareous grasslands (5130), Rupicolous calcareous or basophilic grasslands of the <i>Alysso-Sedion albi</i> (6110), Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco - Brometalia</i> ) (* important orchid sites) (6210), Calcareous rocky slopes with chasmophytic vegetation (8210), <i>Luzulo-Fagetum</i> beech forests (9110), <i>Asperulo-Fagetum</i> beech forests (9130), Medio-European limestone beech forests of the <i>Cephalanthero-Fagion</i> (9150), <i>Tilio-Acerion</i> forests of slopes, screes and ravines (9180), Pannonian woods with <i>Quercus pubescens</i> (91H0).	and species of Community importance: Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> ), Mediterranean horseshoe bat ( <i>Rhinolophus euryale</i> ), Lesser mouse-eared bat ( <i>Myotis blythi</i> ), Western barbastelle ( <i>Barbastella barbastellus</i> ), Schreiber's bat ( <i>Miniopterus schreibersii</i> ), Pond bat ( <i>Myotis dasycneme</i> ), Geoffroy's bat ( <i>Myotis emarginatus</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), Eurasian lynx ( <i>Lynx lynx</i> ), Grey wolf ( <i>Canis lupus</i> ), Greater Pasque Flower ( <i>Pulsatilla grandis</i> ), Slovak pennycress ( <i>Thlaspi jankae</i> ), Torna goldendrop ( <i>Onosma tornensis</i> ), Russian bugloss ( <i>Echium russicum</i> ), Hungarian stool iris ( <i>Iris aphylla</i> subsp. <i>hungarica</i> )
SKUEV0782 Vydrička slatina	Alkaline fens (7230)	Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ).
SKUEV0784 Mašianske sýľovisko	0	European ground squirrel ( <i>Spermophilus citellus</i> ).
SKUEV1064 Bratislavské luhy	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> – type vegetation (3150), Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation (3260), Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (91E0), Riparian mixed forests of <i>Quercus robur</i> , <i>Ulmus laevis</i> and <i>Ulmus minor</i> , <i>Fraxinus excelsior</i> or <i>Fraxinus angustifolia</i> , along the great rivers ( <i>Ulmion minoris</i> ) (91F0)	Asp ( <i>Aspius aspius</i> ), European bitterling ( <i>Rhodeus sericeus amarus</i> ), Schraetzer ( <i>Gymnocephalus schraetzer</i> ), European Beaver ( <i>Castor fiber</i> ).
SKUEV1303 Alúvium Hrona	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (91E0)	<i>Cucujus cinnaberinus</i> , Ukrainian brook lamprey - Vladykov's lamprey ( <i>Eudontomyzon mariae vladkovi</i> ), Danube salmon ( <i>Hucho hucho</i> ), Spined loach ( <i>Cobitis taenia</i> ), European bullhead ( <i>Cottus gobio</i> ), Carpathian newt ( <i>Triturus montandoni</i> ), European fire-bellied toad ( <i>Bombina bombina</i> ), Yellow-bellied toad ( <i>Bombina variegata</i> ), Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ), Greater mouse-eared bat ( <i>Myotis myotis</i> ), European otter ( <i>Lutra lutra</i> ).

Table 45 Overview of subjects of protection in affected Special Protection Areas

Name and code of SPA	Subject of protection
SKCHVU003 Cerová vrchovina – Porimavie	It is declared in order to ensure favourable conservation status of habitats hosting the following bird species of Community importance and migratory bird species European Scops Owl ( <i>Otus scops</i> ), European Bee-eater ( <i>Merops apiaster</i> ), Wood Lark ( <i>Lullula arborea</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ), Eurasian Eagle-Owl ( <i>Bubo bubo</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Eurasian Wryneck ( <i>Jynx torquilla</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ) and Lesser Grey Shrike ( <i>Lanius minor</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU005 Dolné Považie	It is declared in order to ensure favourable conservation status of habitats hosting the following bird species of Community importance and migratory bird species Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ), European Roller ( <i>Coracias garrulus</i> ), Tawny Pipit ( <i>Anthus campestris</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Eurasian Wryneck ( <i>Jynx torquilla</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Red-footed falcon ( <i>Falco vespertinus</i> ), Lesser Grey Shrike ( <i>Lanius minor</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU007 Dunajské luhy	It is declared in order to ensure favourable conservation status of habitats hosting the following bird species of Community importance and migratory bird species Black Stork ( <i>Ciconia nigra</i> ), Sand Martin ( <i>Riparia riparia</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ), Mediterranean Gull ( <i>Larus melanocephalus</i> ), Black Kite ( <i>Milvus migrans</i> ), Common Goldeneye ( <i>Bucephala clangula</i> ), Red-crested Pochard ( <i>Netta rufina</i> ), Common Pochard ( <i>Aythya ferina</i> ), Tufted Duck ( <i>Aythya fuligula</i> ), Garganey ( <i>Anas querquedula</i> ), Common Redshank ( <i>Tringa totanus</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ), Tawny Pipit ( <i>Anthus campestris</i> ), White-tailed Eagle ( <i>Haliaeetus albicilla</i> ), Smew ( <i>Mergellus albellus</i> ), Common Tern ( <i>Sterna hirundo</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Little Egret ( <i>Egretta garzetta</i> ) and to ensure conditions for their survival and reproduction. The Special Protection Area is declared in order to ensure favourable conservation status of habitats and to ensure conditions for the survival and reproduction of migratory water bird species, forming groups within the migration or wintering
SKCHVU009 Košická kotlina	Declared in order to ensure favourable conservation status for habitats hosting bird species of Community importance and habitats for the following migratory birds species: saker falcon ( <i>Falco cherrug</i> ), Ural owl ( <i>Strix uralensis</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), white stork ( <i>Ciconia ciconia</i> ), common quail ( <i>Coturnix coturnix</i> ), eastern imperial eagle ( <i>Aquila heliaca</i> )
SKCHVU011 Laborecká vrchovina	Declared in order to ensure favourable conservation status for habitats of following bird species of Community importance and migratory birds species Ural owl ( <i>Strix uralensis</i> ), Lesser Spotted Eagle ( <i>Aquila pomarina</i> ), Black Stork ( <i>Ciconia nigra</i> ), Red Kite ( <i>Milvus milvus</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Red-backed Shrike ( <i>Lanius collurio</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Hazel Hen ( <i>Tetrastes bonasia</i> ), Corn Crane ( <i>Crex crex</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Wood Lark ( <i>Lullula arborea</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), White Stork ( <i>Ciconia ciconia</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Eurasian Wryneck ( <i>Jynx torquilla</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Great Grey Shrike ( <i>Lanius excubitor</i> ) and Sand Martin ( <i>Riparia riparia</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU012 Lehnice	It is declared in order to preserve habitats of bird species of Community importance and migratory bird species Great Bustard ( <i>Otis tarda</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Red-footed falcon ( <i>Falco vespertinus</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU013 Malá Fatra	Declared in order to ensure the favourable conservation status for habitats hosting the bird species of Community importance and migratory birds species Golden eagle ( <i>Aquila chrysaetos</i> ), Peregrine Falcon ( <i>Falco peregrinus</i> ), Eagle owl ( <i>Bubo bubo</i> ), Grey-headed woodpecker ( <i>Picus canus</i> ), Boreal Owl ( <i>Aegolius funereus</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Common Rock Thrush ( <i>Monticola saxatilis</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Black Stork ( <i>Ciconia nigra</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Ural owl ( <i>Strix uralensis</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), Corn Crane ( <i>Crex crex</i> ), Eurasian pygmy owl ( <i>Glaucidium passerinum</i> ), Hazel grouse ( <i>Bonasa bonasia</i> ), Great Grey Shrike ( <i>Lanius excubitor</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Capercaillie ( <i>Tetrao urogallus</i> ), Black grouse ( <i>Tetrao tetrix</i> ), Three-toed woodpecker ( <i>Picoides tridactylus</i> ), Red-breasted flycatcher ( <i>Ficedula parva</i> )
SKCHVU014 Malé Karpaty	Declared in order to preserve habitats of bird species of Community importance and migratory birds species saker falcon ( <i>Falco cherrug</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Eagle owl ( <i>Bubo bubo</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Peregrine Falcon ( <i>Falco peregrinus</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Red-breasted

Name and code of SPA	Subject of protection
	Flycatcher ( <i>Ficedula parva</i> ), Red-backed Shrike ( <i>Lanius collurio</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), Spotted flycatcher ( <i>Muscicapa striata</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ) and Eastern imperial eagle ( <i>Aquila heliaca</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU016 Záhorské Pomoravie	It is declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species Spotted Crake ( <i>Porzana porzana</i> ), Great Bittern ( <i>Botaurus stellaris</i> ), Black Kite ( <i>Milvus migrans</i> ), Red Kite ( <i>Milvus milvus</i> ), Saker falcon ( <i>Falco cherrug</i> ), Common Tern ( <i>Sterna hirundo</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ), Common Redshank ( <i>Tringa totanus</i> ), White stork ( <i>Ciconia ciconia</i> ), Black Stork ( <i>Ciconia nigra</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Tufted Duck ( <i>Aythya fuligula</i> ), Garganey ( <i>Anas querquedula</i> ), Red-crested Pochard ( <i>Netta rufina</i> ), Sand Martin ( <i>Riparia riparia</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), Spotted flycatcher ( <i>Muscicapa striata</i> ), Bluethroat ( <i>Luscinia svecica</i> ), Wood Lark ( <i>Lullula arborea</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Corn Crake ( <i>Crex crex</i> ) and wintering grounds of wild geese and to ensure conditions for their survival and reproduction.
SKCHVU018 Nízke Tatry	It has been declared in order to ensure the favourable conservation status of habitats of the following bird species of Community interest and migratory birds species Golden eagle ( <i>Aquila chrysaetos</i> ), Capercaillie ( <i>Tetrao urogallus</i> ), Black grouse ( <i>Tetrao tetrix</i> ), Three-toed woodpecker ( <i>Picoides tridactylus</i> ), Boreal owl ( <i>Aegolius funereus</i> ), Eurasian pygmy owl ( <i>Glaucidium passerinum</i> ), Hazel grouse ( <i>Bonasa bonasia</i> ), Black Stork ( <i>Ciconia nigra</i> ), Lesser spotted eagle ( <i>Aquila pomarina</i> ), Eagle owl ( <i>Bubo bubo</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Spotted flycatcher ( <i>Muscicapa striata</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ) and Corn Crake ( <i>Crex crex</i> ) and to provide conditions for their survival and reproduction.
SKCHVU020 Parižske močiare	It is declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species Little Crake ( <i>Porzana parva</i> ), Moustached Warbler ( <i>Acrocephalus melanopogon</i> ), Garganey ( <i>Anas querquedula</i> ), European Bee-eater ( <i>Merops apiaster</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ) and Greylag Goose ( <i>Anser anser</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU021 Poiplie	It has been declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species White stork ( <i>Ciconia ciconia</i> ), Lesser Grey Shrike ( <i>Lanius minor</i> ), Little Crake ( <i>Porzana parva</i> ), Spotted Crake ( <i>Porzana porzana</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), European Bee-eater ( <i>Merops apiaster</i> ), European Scops Owl ( <i>Otus scops</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Crested Lark ( <i>Galerida cristata</i> ), Common Quail ( <i>Coturnix coturnix</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Sand Martin ( <i>Riparia riparia</i> ), Western Marsh-harrier ( <i>Circus aeruginosus</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU022 Poľana	It has been declared in order to ensure the favourable conservation status of habitats of bird species of Community interest and migratory birds species White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), Three-toed woodpecker ( <i>Picoides tridactylus</i> ), Corn Crake ( <i>Crex crex</i> ), Hazel grouse ( <i>Bonasa bonasia</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Common Quail ( <i>Coturnix coturnix</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Lesser Grey Shrike ( <i>Lanius minor</i> ), Wood Lark ( <i>Lullula arborea</i> ), Capercaillie ( <i>Tetrao urogallus</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ) and to provide conditions for their survival and reproduction.
SKCHVU023 Úľanská mokrad'	It is declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species Western Marsh-harrier ( <i>Circus aeruginosus</i> ), Montagu's Harrier ( <i>Circus pygargus</i> ), Little Bittern ( <i>Ixobrychus minutus</i> ), Crested Lark ( <i>Galerida cristata</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Red-footed falcon ( <i>Falco vespertinus</i> ), Saker falcon ( <i>Falco cherrug</i> ), Black Kite ( <i>Milvus migrans</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU025 Slanské vrchy	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory birds species Eastern imperial eagle ( <i>Aquila heliaca</i> ), Eagle owl ( <i>Bubo bubo</i> ), Black Stork ( <i>Ciconia nigra</i> ), Lesser Spotted Eagle ( <i>Aquila pomarina</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Ural owl ( <i>Strix uralensis</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Red-backed Shrike ( <i>Lanius collurio</i> ), Golden eagle ( <i>Aquila chrysaetos</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Wood Lark ( <i>Lullula arborea</i> ), Hazel grouse ( <i>Bonasa bonasia</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Corn Crake ( <i>Crex crex</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ) and Black Woodpecker ( <i>Dryocopus martius</i> )

Name and code of SPA	Subject of protection
SKCHVU027 Slovenský kras	Declared in order to ensure favourable conservation status of habitats of bird species of Community interest and migratory birds species: black stork, Eurasian bittern, black woodpecker, white-backed woodpecker, middle-spotted woodpecker, short-toed eagle, spotted crane, Eurasian marsh harrier, Eurasian wryneck, nightjar, collared flycatcher, red-breasted flycatcher, lesser spotted eagle, barred warbler, common quail, common rock thrush, saker falcon, peregrine falcon, peregrine falcons, Ural owl, red-backed shrike, woodlark, honey buzzard, eagle owl, Eurasian scops owl and grey-headed woodpecker.
SKCHVU028 Strážovské vrchy	Declared in order to ensure favourable conservation status of habitats of bird species of Community interest and migratory birds species: peregrine falcon, eagle owl, grey-headed woodpecker, golden eagle, black stork, honey buzzard, capercaillie, Boreal owl, whippoorwill forest, field corncrake, black woodpecker, woodpecker, hazel grouse, Barred Warbler, middle woodpecker, red-breasted flycatcher, collared flycatcher, red-backed shrike, gray shrike, quail, wryneck brown, Stonechat, turtle dove, forest flounder and spotted flycatcher.
SKCHVU029 Sysľovské polia	Declared in order to preserve habitats of bird species of Community importance and migratory bird species Great Bustard ( <i>Otis tarda</i> ), Greater White-fronted Goose ( <i>Anser albifrons</i> ), Bean Goose ( <i>Anser fabalis</i> ), Red-footed falcon ( <i>Falco vespertinus</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU031 Tribeč	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species European Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Eastern imperial eagle ( <i>Aquila heliaca</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Common Quail ( <i>Coturnix coturnix</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Eagle owl ( <i>Bubo bubo</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU033 Veľká Fatra	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory birds species: peregrine falcon, hazel grouse, nightjar, three-toed woodpecker, eagle owl, Ural owl, black stork, honey buzzard, grey-headed woodpecker, redstart, spotted flycatcher, golden eagle, black grouse, capercaillie, Boreal owl, Eurasian pygmy owl, black woodpecker, white-backed woodpecker, collared flycatcher and Red-breasted Flycatcher ( <i>Ficedula parva</i> ) and to provide conditions for their survival and reproduction.
SKCHVU035 Vihorlatské vrchy	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory birds species Short-toed Snake Eagle ( <i>Circaetus gallicus</i> ), Ural owl ( <i>Strix uralensis</i> ), European Scops Owl ( <i>Otus scops</i> ), Lesser Spotted Eagle ( <i>Aquila pomarina</i> ), Hazel Hen ( <i>Tetrastes bonasia</i> ), Eagle owl ( <i>Bubo bubo</i> ), European Nightjar ( <i>Caprimulgus europaeus</i> ), Black Stork ( <i>Ciconia nigra</i> ), Corn Crane ( <i>Crex crex</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), European Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), Red-backed Shrike ( <i>Lanius collurio</i> ), Wood Lark ( <i>Lullula arborea</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Grey-headed Woodpecker ( <i>Picus canus</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Common Redstart ( <i>Phoenicurus phoenicurus</i> ), African Stonechat ( <i>Saxicola torquatus</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU036 Volovské vrchy (SPA)	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory birds species Black Stork ( <i>Ciconia nigra</i> ), White-backed Woodpecker ( <i>Dendrocopos leucotos</i> ), Middle Spotted Woodpecker ( <i>Dendrocopos medius</i> ), Black Woodpecker ( <i>Dryocopus martius</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), Hazel Hen ( <i>Tetrastes bonasia</i> ), Eurasian wryneck ( <i>Jynx torquilla</i> ), Boreal Owl ( <i>Aegolius funereus</i> ), Eurasian pygmy owl ( <i>Glaucidium passerinum</i> ), Red-breasted Flycatcher ( <i>Ficedula parva</i> ), Collared Flycatcher ( <i>Ficedula albicollis</i> ), Spotted Flycatcher ( <i>Muscicapa striata</i> ), Lesser Spotted Eagle ( <i>Aquila pomarina</i> ), Golden eagle ( <i>Aquila chrysaetos</i> ), Barred Warbler ( <i>Sylvia nisoria</i> ), Common Quail ( <i>Coturnix coturnix</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Ural owl ( <i>Strix uralensis</i> ), Red-backed Shrike ( <i>Lanius collurio</i> ), Capercaillie ( <i>Tetrao urogallus</i> ), Black grouse ( <i>Tetrao tetrix</i> ), European Honey Buzzard ( <i>Pernis apivorus</i> ), Eagle owl ( <i>Bubo bubo</i> ) and Grey-headed Woodpecker ( <i>Picus canus</i> )
SKCHVU037 Ondavská rovina	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance and migratory bird species White stork ( <i>Ciconia ciconia</i> ), Syrian woodpecker ( <i>Dendrocopos syriacus</i> ), Tawny Pipit ( <i>Anthus campestris</i> ), Eastern imperial eagle ( <i>Aquila heliaca</i> ), Crested Lark ( <i>Galerida cristata</i> ), Common Quail ( <i>Coturnix coturnix</i> ), African Stonechat ( <i>Saxicola torquatus</i> ), Common Kingfisher ( <i>Alcedo atthis</i> ), Saker falcon ( <i>Falco cherrug</i> ), Corn Crane ( <i>Crex crex</i> ) and to ensure conditions for their survival and reproduction.
SKCHVU050 Chočské vrchy	Declared in order to ensure favourable conservation status of habitats of bird species of Community importance peregrine falcon, golden eagle, eagle owl, capercaillie, three-toed woodpecker, grey-headed woodpecker, Boreal owl, Eurasian pygmy owl, hazel grouse and great grey shrike and to provide conditions for their survival and reproduction.
SKCHVU053	The SPA was declared in order to ensure favourable conservation status of habitats of bird species of

Name and code of SPA	Subject of protection
Slovenský raj	Community importance and migratory birds species black stork, black woodpecker, three-toed woodpecker, hazel grouse, Eurasian pygmy owl, lesser spotted eagle, golden eagle, peregrine falcon, Ural owl, capercaillie, black grouse, honey buzzard, eagle owl and grey-headed woodpecker and to provide conditions for their survival and reproduction.

## **MAP SCHEME NO.1**

**SPRDI SR 2020, ER, july 2013, zero scenario, rail, air, waterways and  
intermodal infrastructure**

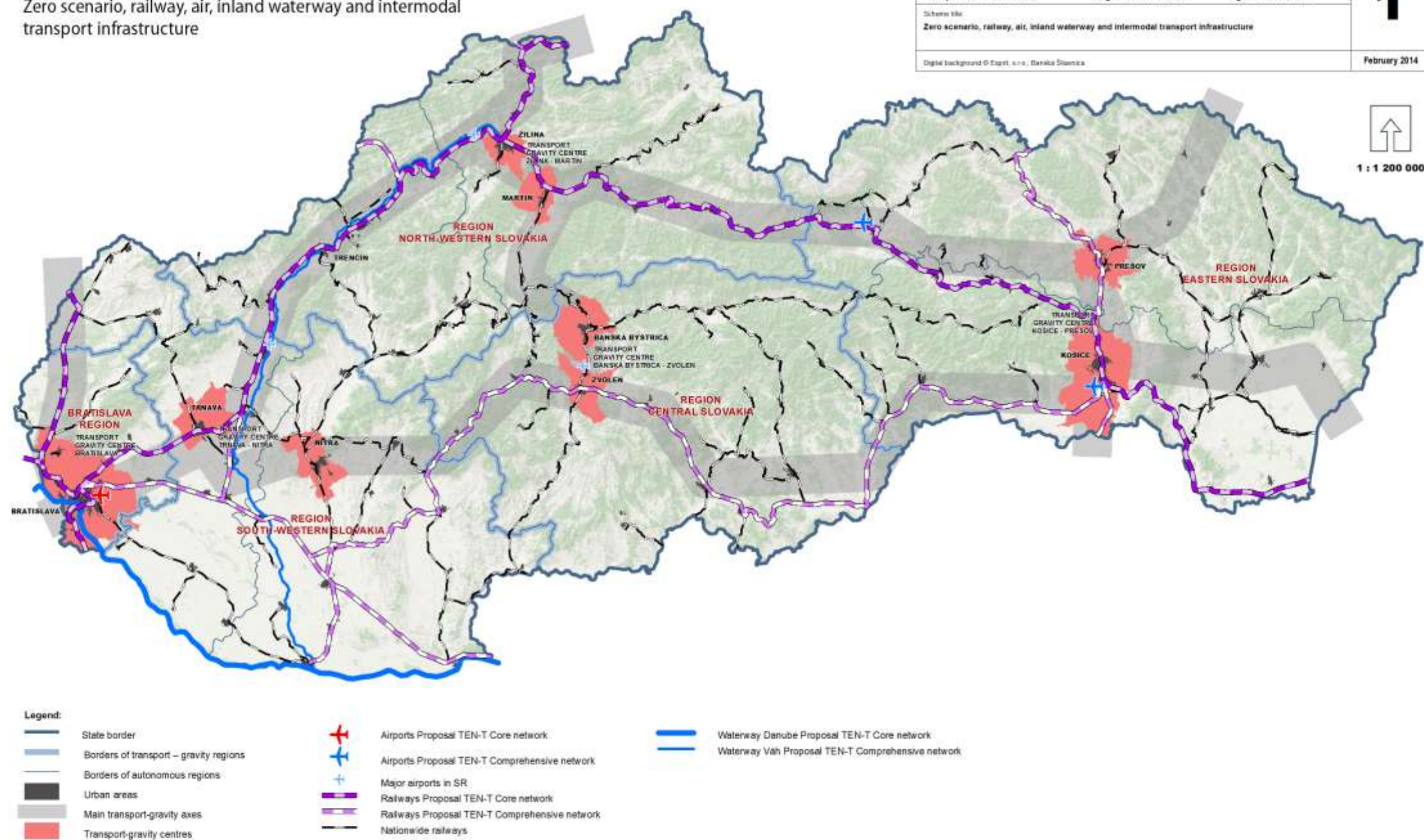




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Zero scenario, railway, air, inland waterway and intermodal transport infrastructure

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.  
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## **MAP SCHEME NO.2**

**SPRDI SR 2020, ER, july 2013, implementation scenario, rail, air, water and intermodal infrastructure**

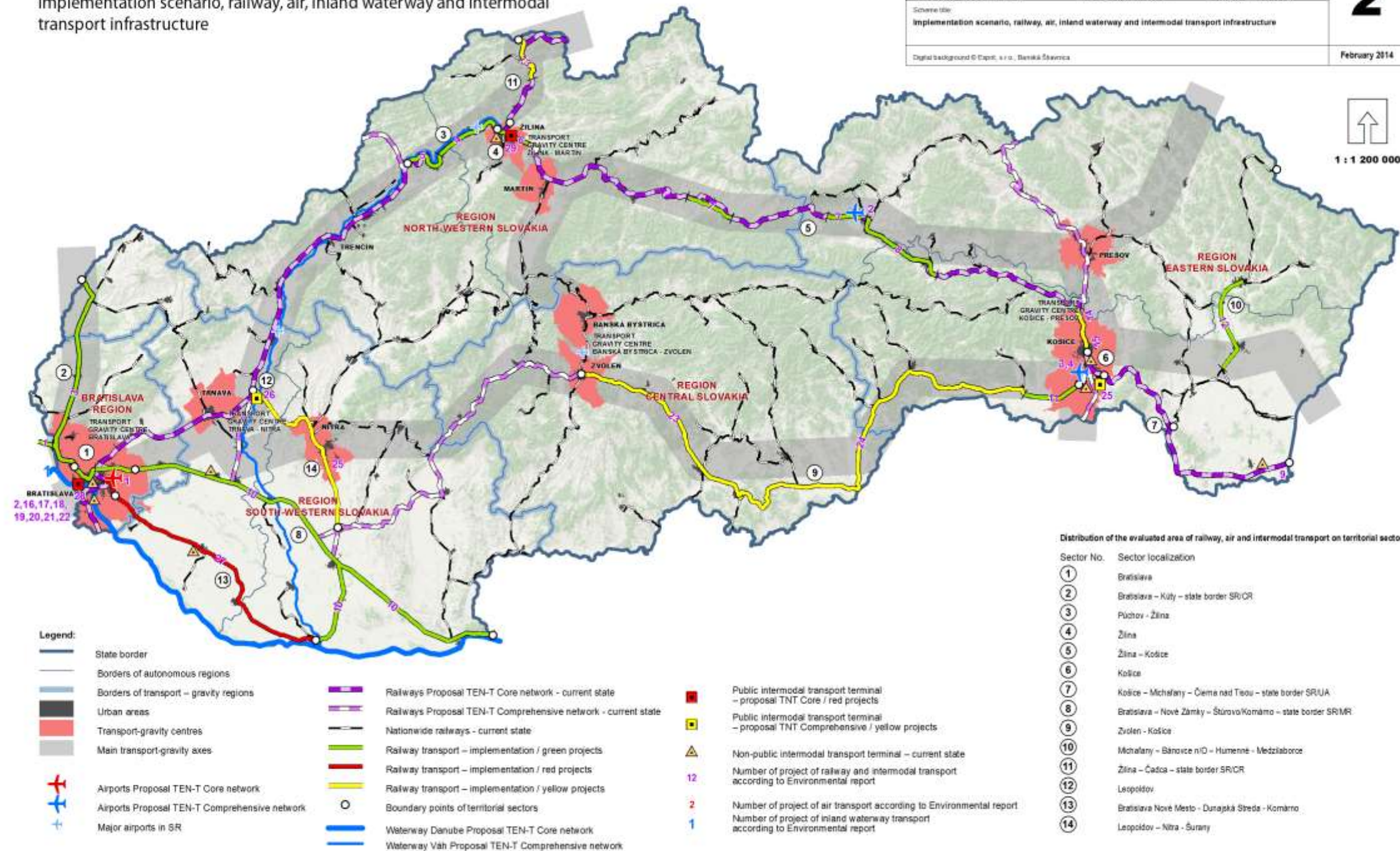




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, railway, air, inland waterway and intermodal transport infrastructure

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report			Scheme no.  <b>2</b>
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic			
Prepared by	Transport Research Institute	Project coordinator	Scheme author	
		Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Implementation scenario, railway, air, inland waterway and intermodal transport infrastructure			
Digital background © Capri, s.r.o., Bratislava Slovakia				February 2014





## **MAP SCHEME NO.3**

**SPRDI SR 2020, ER, july 2013, zero scenario, infrastructure of road transport**

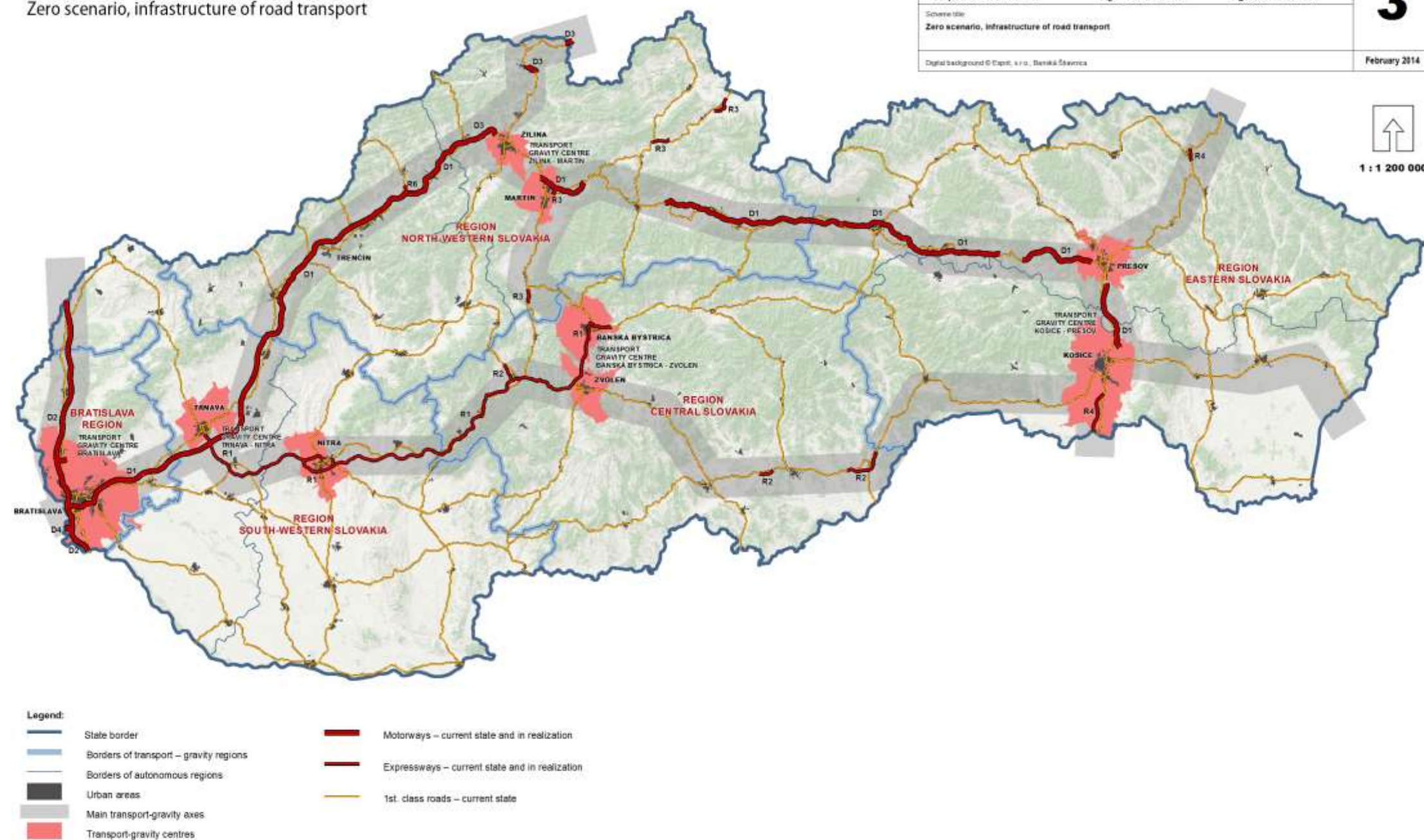




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Zero scenario, infrastructure of road transport

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic		3
Prepared by	Project coordinator	Scheme author	
Transport Research Institute	Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Zero scenario, infrastructure of road transport		February 2014
Digital background © Capri, s.r.o., Bratislava Slovakia			





## **MAP SCHEME NO.4**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of road transport**

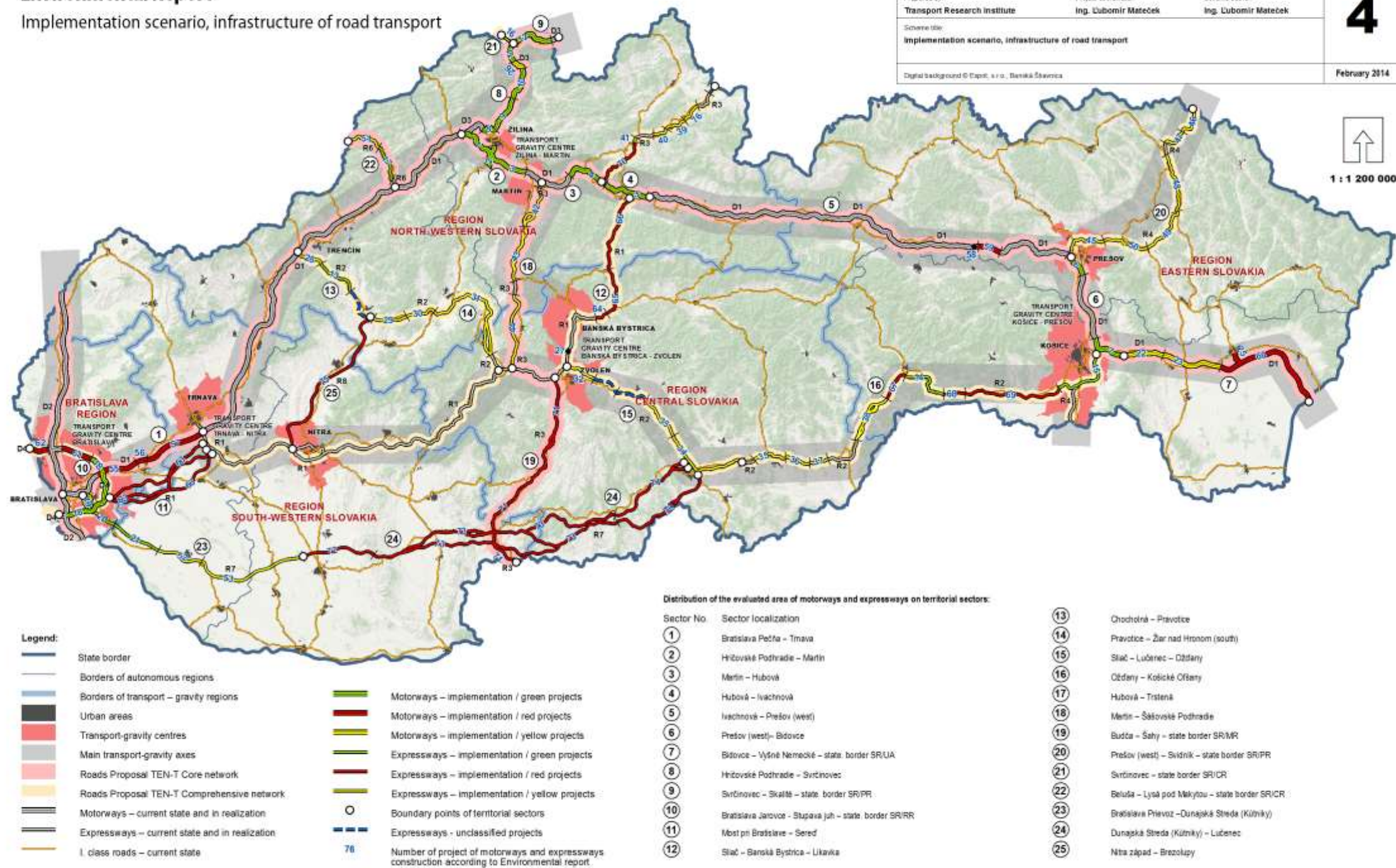




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of road transport

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report			Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic			4
Prepared by	Transport Research Institute	Project coordinator	Scheme author	
		Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Implementation scenario, infrastructure of road transport			
Digital background © Capri, s.r.o., Bratislava Slovakia				February 2014





## **MAP SCHEME NO.5**

**SPRDI SR 2020, ER, july 2013, implementation scenario, localization of highways and motorways network due to the density distribution of the population of the Slovak Republic**

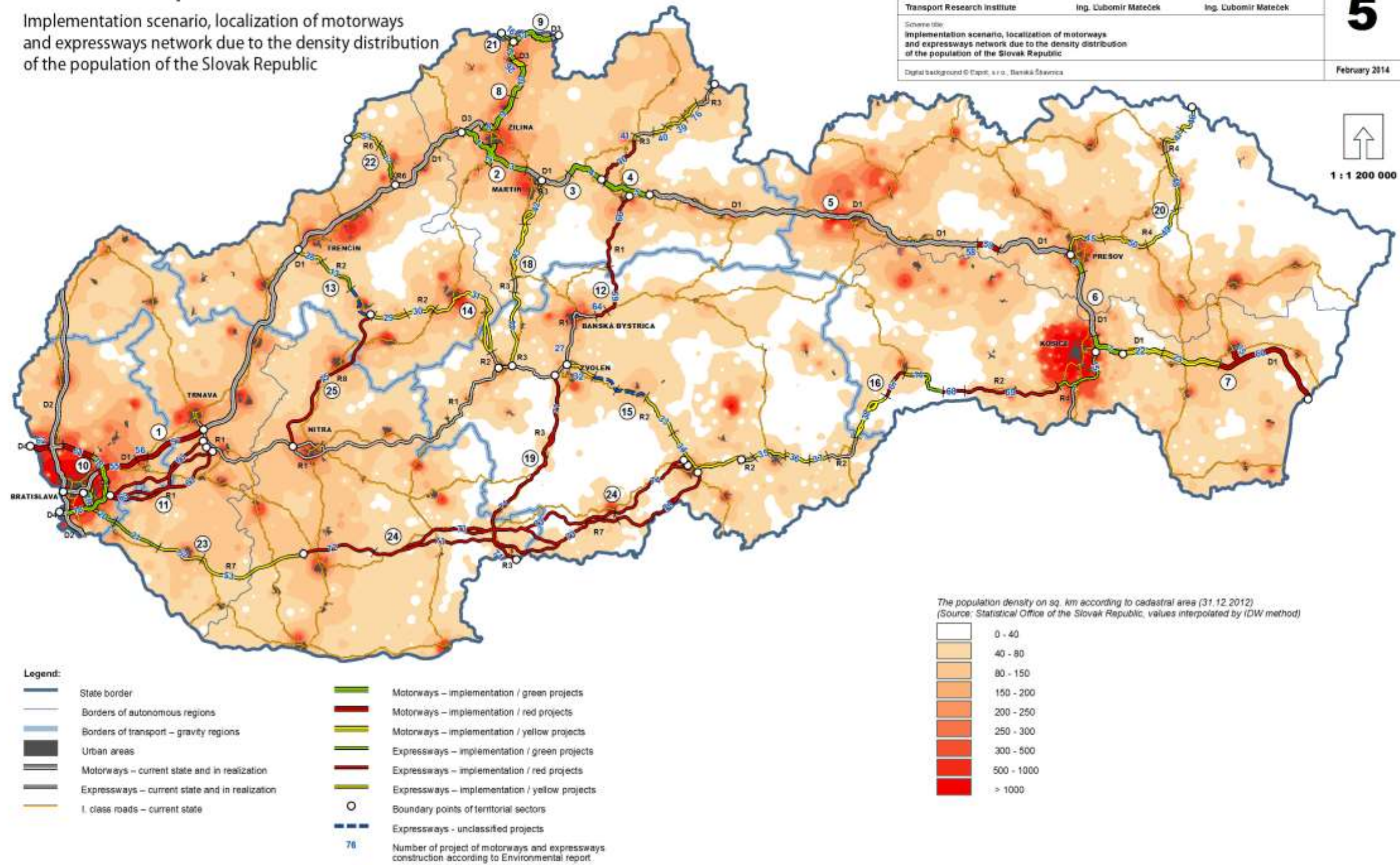




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, localization of motorways and expressways network due to the density distribution of the population of the Slovak Republic

Document title:	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer:	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>5</b>
Prepared by:	Transport Research Institute	Project coordinator:	
		Ing. Ľubomír Mateček	
Scene title:	Implementation scenario, localization of motorways and expressways network due to the density distribution of the population of the Slovak Republic		Scene author:
			Ing. Ľubomír Mateček
Digital background © Esprit, s.r.o., Bratislava Slovakia			February 2014





## MAP SCHEME NO.6

**SPRDI SR 2020, ER, july 2013, implementation scenario, availability of residents  
to routes of motorways and expressways in the west - east and north - south to  
15 min**

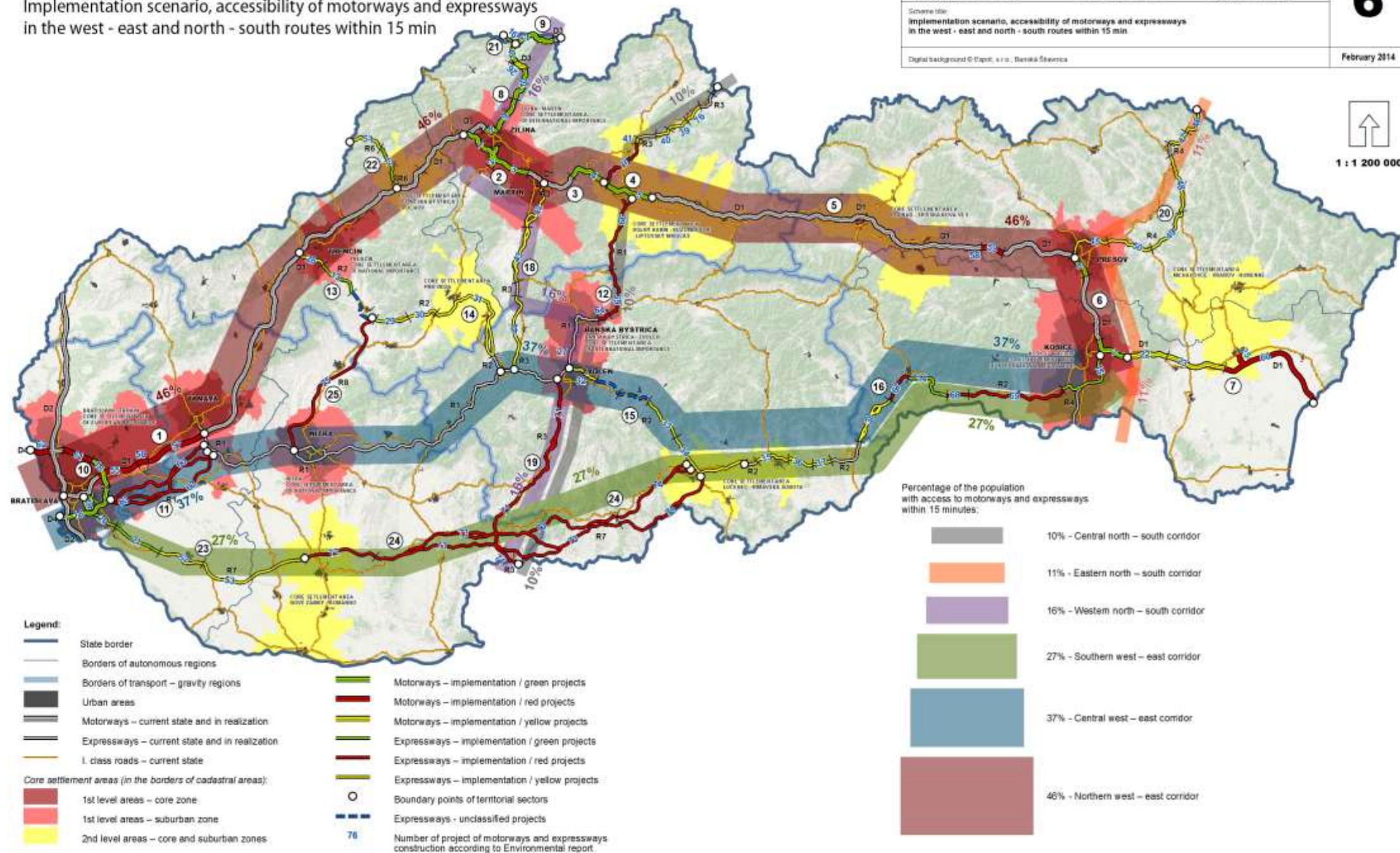




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, accessibility of motorways and expressways  
in the west - east and north - south routes within 15 min

Document title <b>Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report</b>			Scheme no.          <b>6</b>
Customer <b>Ministry of Transport, Construction and Regional Development of the Slovak Republic</b>			
Prepared by <b>Transport Research Institute</b>	Project coordinator <b>Ing. Ľubomír Mateček</b>	Scheme author <b>Ing. Ľubomír Mateček</b>	
Scheme title <b>Implementation scenario, accessibility of motorways and expressways in the west - east and north - south routes within 15 min</b>			
Digital background © Esprit, s.r.o., Bratislava Slovakia			
			<b>February 2014</b>







## **MAP SCHEME NO.7**

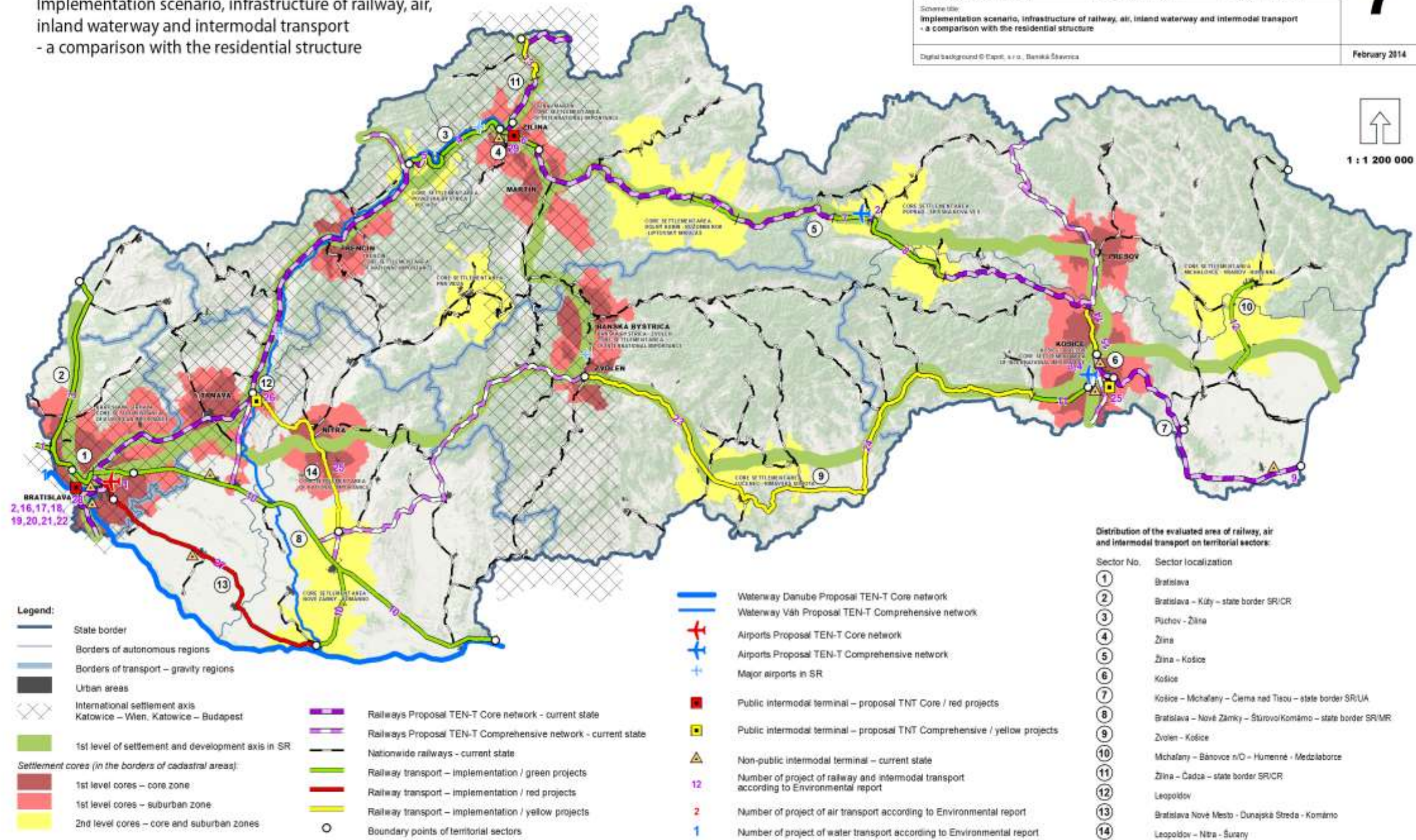
**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of  
rail, air, waterways and intermodal transport - a comparison with the  
residential structure**



## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport  
- a comparison with the residential structure

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>7</b>
Prepared by	Transport Research Institute	Scheme author	
Project coordinator	Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport - a comparison with the residential structure		February 2014
Digital background	© Esprit, s.r.o., Bratislava, Slovakia		





## **MAP SCHEME NO.8**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of  
rail, air, waterways and intermodal transport - a comparison with Natura  
2000**

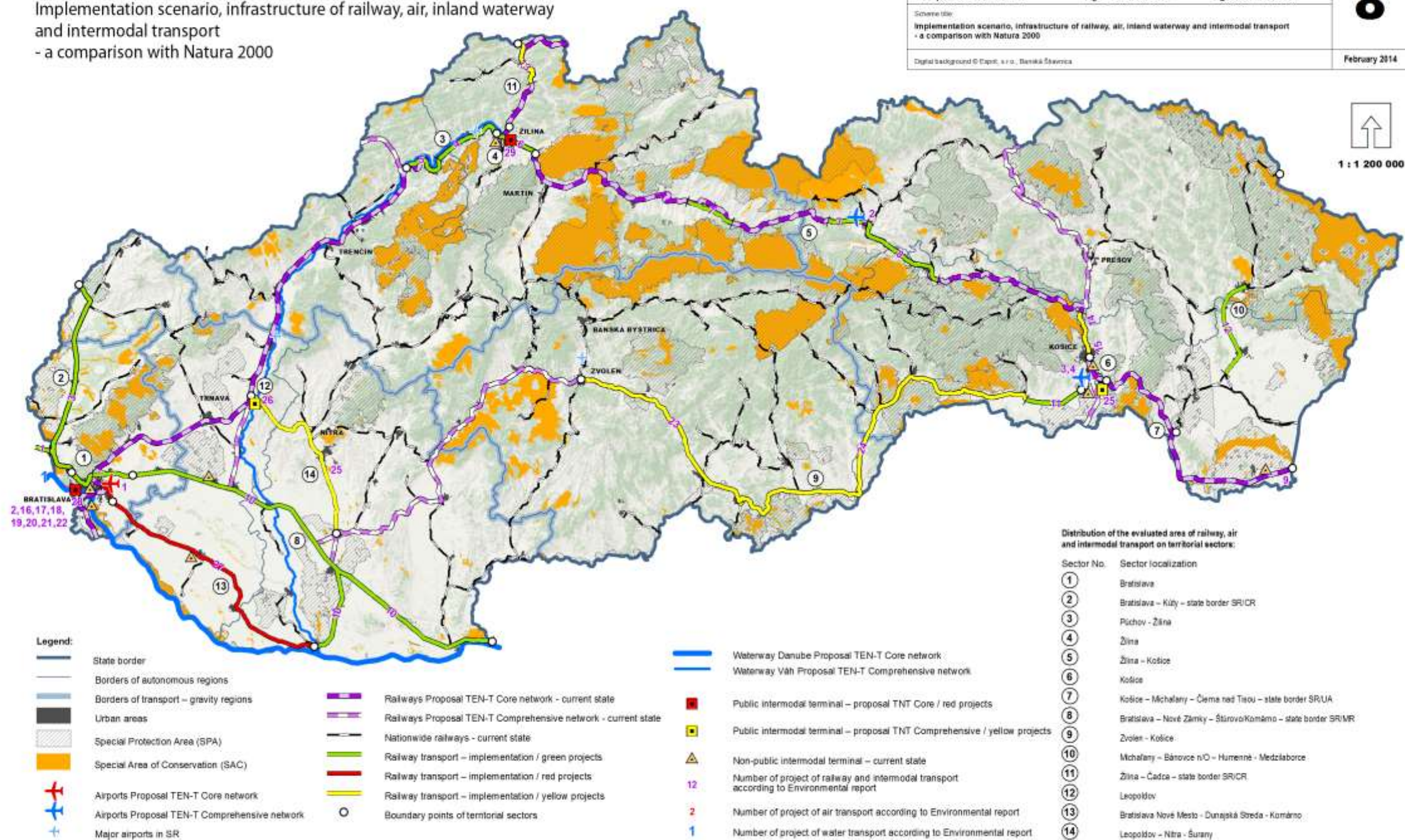




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport  
- a comparison with Natura 2000

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>8</b>
Prepared by	Transport Research Institute	Scheme author	
Project coordinator	Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport - a comparison with Natura 2000		February 2014
Digital background	© Emap, s.r.o., Bratislava, Slovakia		







## **MAP SCHEME NO.9**

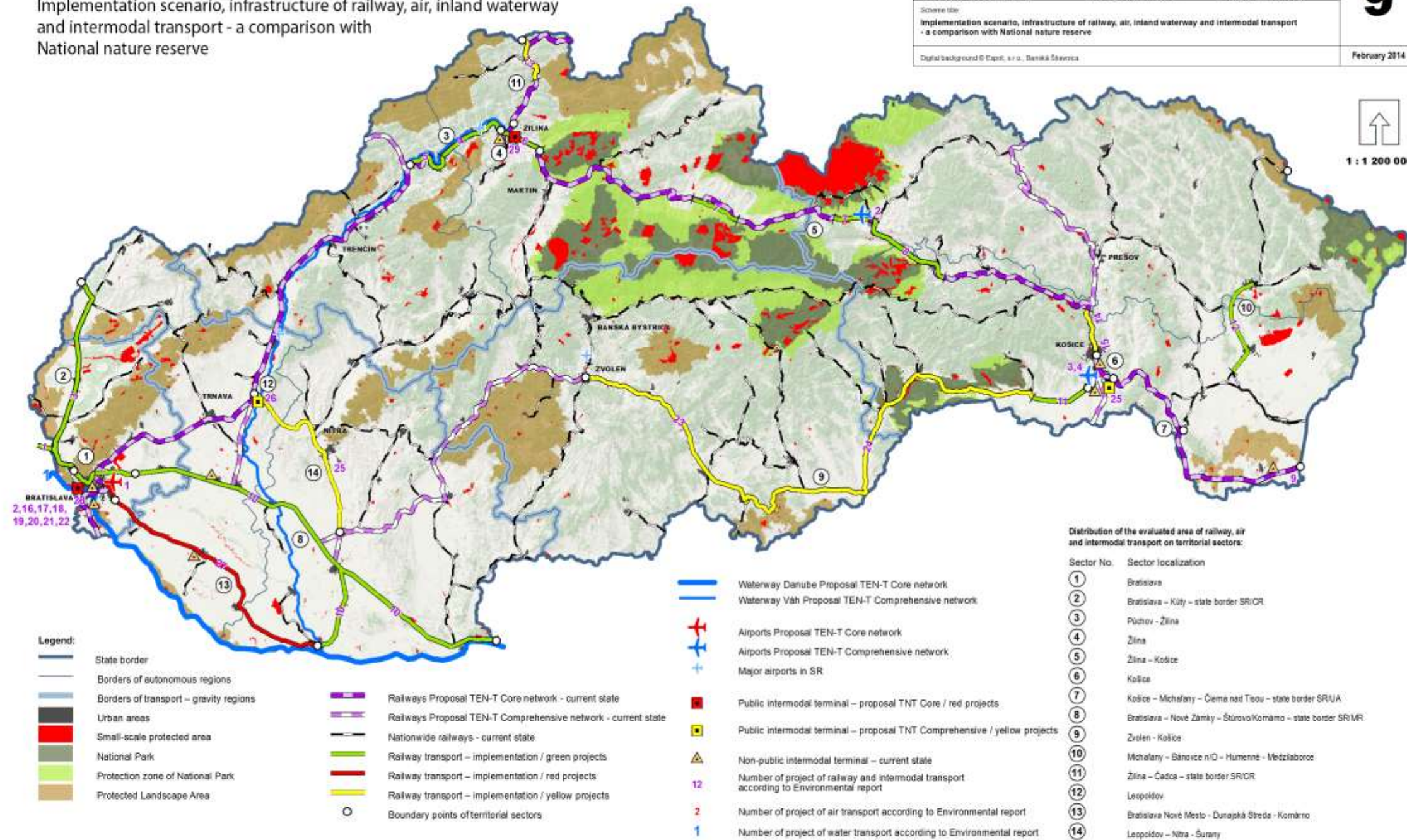
**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of rail, air, waterways and intermodal transport - a comparison with National nature reserv**



## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport - a comparison with National nature reserve

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>9</b>
Prepared by	Transport Research Institute	Scheme author	
Project coordinator	Ing. Ľubomír Mateček	Ing. Ľubomír Mateček	
Scheme title	Implementation scenario, infrastructure of railway, air, inland waterway and intermodal transport - a comparison with National nature reserve		February 2014
Digital background © Emap, s.r.o., Bratislava			





## **MAP SCHEME NO.10**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of road transport – actions**



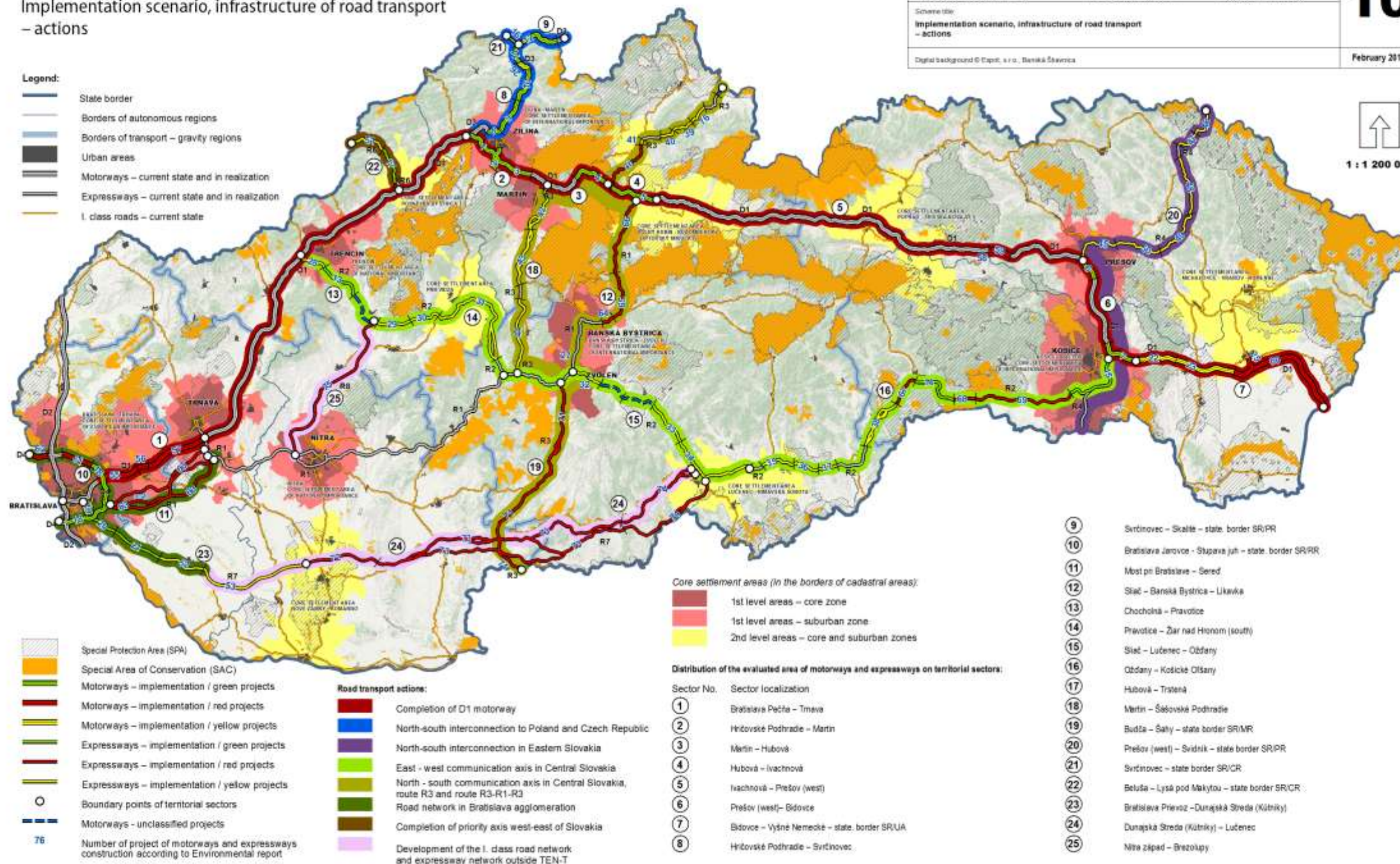


## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

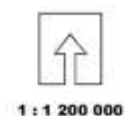
Implementation scenario, infrastructure of road transport  
– actions

### Legend:

- State border
- Borders of autonomous regions
- Borders of transport – gravity regions
- Urban areas
- Motorways – current state and in realization
- Expressways – current state and in realization
- I. class roads – current state



Document title: <b>Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report</b>	Scheme no.			
Customer: <b>Ministry of Transport, Construction and Regional Development of the Slovak Republic</b>	<b>10</b>			
Prepared by: <b>Transport Research Institute</b>			Project coordinator: <b>Ing. Ľubomír Mateček</b>	Scheme author: <b>Ing. Ľubomír Mateček</b>
Scheme title: <b>Implementation scenario, infrastructure of road transport – actions</b>				
Digital background © Esprit, s.r.o., Banská Števnica			February 2014	





## **MAP SCHEME NO.11**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of road transport - a comparison with the residential structure**

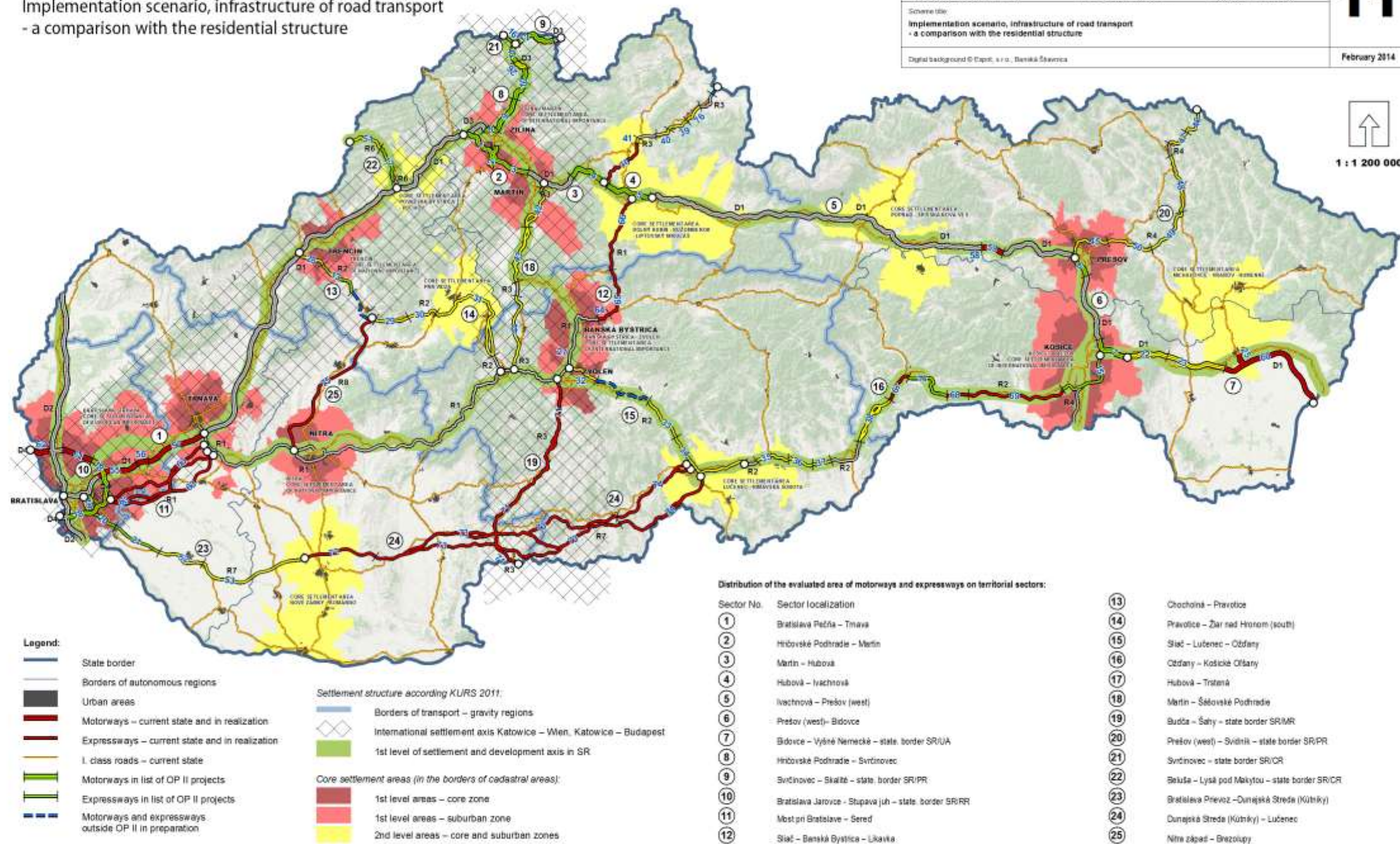




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of road transport  
- a comparison with the residential structure

Document title:	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer:	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>11</b>
Prepared by:	Transport Research Institute	Project coordinator:	
		Ing. Ľubomír Mateček	
Scheme title:	Implementation scenario, infrastructure of road transport - a comparison with the residential structure		February 2014
Digital background ©	Capit, s.r.o., Bratislava		





## **MAP SCHEME NO.12**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of road transport - a comparison with Natura 2000**

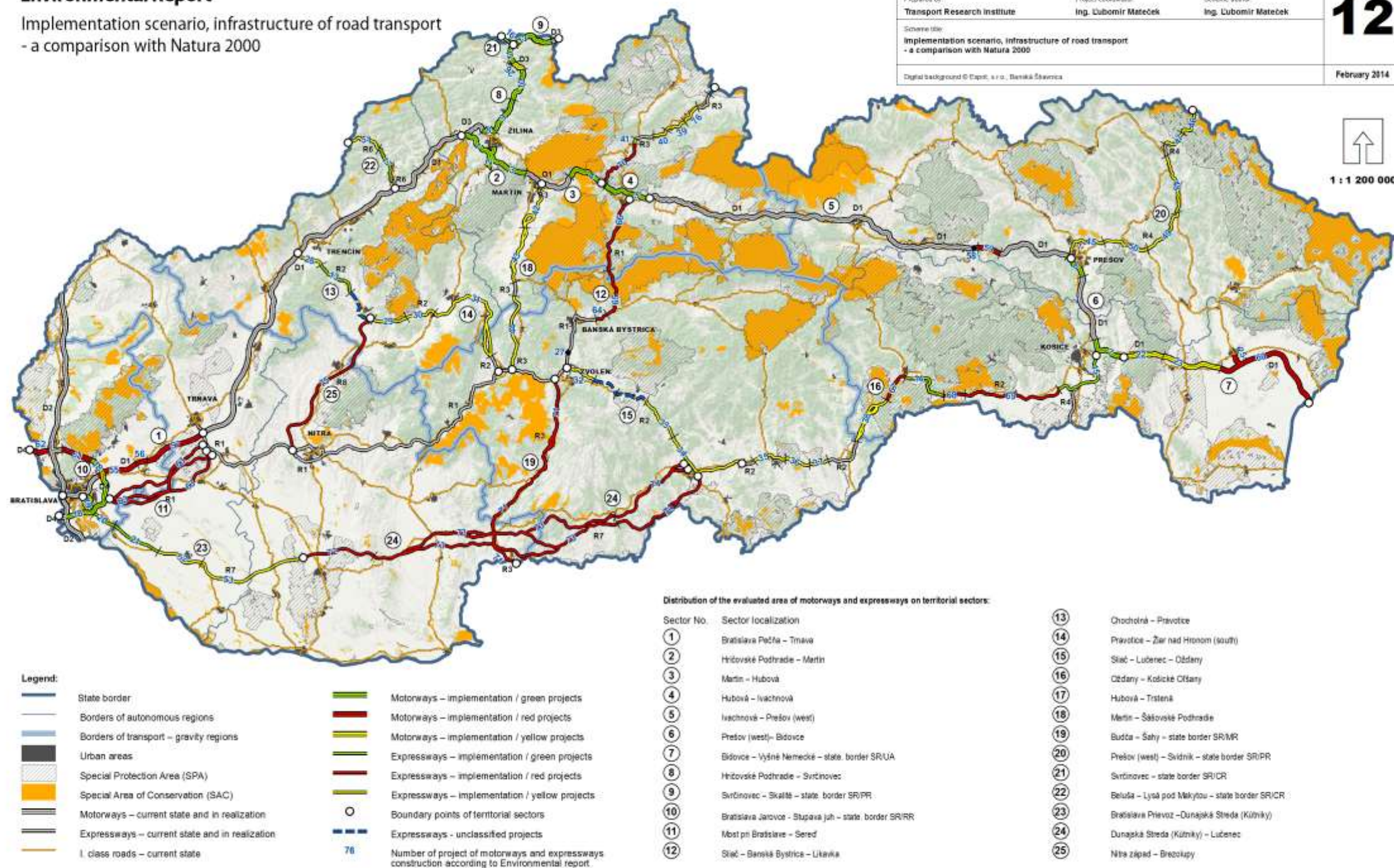




## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of road transport  
- a comparison with Natura 2000

Document title: Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report	Scheme no.
Customer: Ministry of Transport, Construction and Regional Development of the Slovak Republic	<b>12</b>
Prepared by: Transport Research Institute	
Project coordinator: Ing. Ľubomír Mateček	
Scheme author: Ing. Ľubomír Mateček	February 2014
Scheme title: Implementation scenario, infrastructure of road transport - a comparison with Natura 2000	
Digital background © Esprit, s.r.o., Baník Škvrtnica	





## **MAP SCHEME NO.13**

**SPRDI SR 2020, ER, july 2013, implementation scenario, infrastructure of  
road transport - a comparison with National nature reserve**





## Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report

Implementation scenario, infrastructure of road transport  
- a comparison with National System of Protected Areas

Document title	Strategic Plan for Development of Transport Infrastructure in Slovak Republic by 2020, July 2013, Environmental Report		Scheme no.
Customer	Ministry of Transport, Construction and Regional Development of the Slovak Republic		<b>13</b>
Prepared by	Transport Research Institute	Scheme author	
Project coordinator	Ing. Ľubomír Mateček		
Scheme title			February 2014
Implementation scenario, infrastructure of road transport - a comparison with National System of Protected Areas			
Digital background © Esprit, s.r.o., Bratislava, Slovakia			

