

Response to questionnaire for:

**Assessment of strategic plans and policy
measures on Investment and Maintenance in
Transport Infrastructure**

Country:

Slovakia

1 INTRODUCTION

- In the area of **railway infrastructure**, on the basis of executed analytical works, the following key disparities were identified: unsatisfactory technical and qualitative condition of the railway infrastructure, as well as the non-fulfilment of conditions of the interoperability of railway tracks of the SR. On the other hand, as a strength of the railway network can be regarded the location of European railway corridors leading through the territory of the SR (corridor IV, Va and VI), which brings the opportunity for the development of this transport mode (increase of transport shares of the railway transport). However it is conditioned by the implementation of the modernisation of the respective corridors.
- In the area of **road infrastructure** the largest disparity is the uncompleted superior transport infrastructure (motorways and expressways), as well as the unsatisfactory condition of the remaining road network. For this reason in the programme period of years 2007 to 2013 was planned as a priority the construction of the motorway network in the lines of the carrier TEN-T network, expressways supplementing the motorway network, as well as the modernisation and construction of first-class roads important from the international and national view.
- In the area of **waterways** the transport is mainly operated at a water flow of the Danube River - E-80 by AGN Convention, belonging to the TEN-T network as well as to Pan-European transport Corridor VII (Danube – Main – Rhine). This waterway provides connection to North Sea and Black Sea ports and to West European waterways network. Water transport operation in smaller waterways (rivers Bodrog, Latorica, Laborec in Eastern Slovakia and Hron, Nitra, Ipel' in Central and Western Slovakia) depends on navigability level of rivers Danube, Tisa and Váh. These flows provide mainly transport of bulk materials for local industry.
- National **air transport** is carried out at airports Bratislava and Košice. International transport is carried out in airports Bratislava, Košice, Piešťany, Poprad-Tatry, Sliač and Žilina, from which scheduled service is performed in Bratislava, Košice and Poprad-Tatry. Charter flights are operated in all Slovak airports.

1.1 Infrastructure

- As per 2012, approximately 3 623 km of railway tracks were in operation, of which 3 474 km of railway tracks with standard gauge, 50 km of narrow-gauge tracks and 99 km of wide-gauge tracks, whereby 2 608 km were single tracks and 1 015 km were double track lines. In the year 2012, from the railway tracks mentioned above were electrified 1 577 km, which represents 43.5% of the total length of railway tracks. Basic view shown in Appendix 1.
- The scope of the motorway and expressway network of the SR is defined by the motorways D1, D2, D3 and D4 with total length of 659 km and the scope of the expressway network by the routes R1, R2, R3, R4, R5, R6 and by the planned R7 and R8 with total length of 1 236 km. In operation are 419 km of motorways, 229 km of expressways, 3 317 of 1st class roads, 3 639 of 2nd class roads and 10 411 km of 3rd

class roads. Length of roads and motorways is 18 040 km, which included 1 536 km of international roads "E", 931 km of international routes "TEM" and 925 km of TEN-T corridors. Density of the road network in the Slovak Republic is on the level of average of EU countries (368 km/th. km²). The problem however, is the low share of roads of higher categories. Slovakia belongs among countries with the lowest density of motorways. Despite the fact density of the higher categories roads (motorways and expressways) has exceeded 0.014 km/ km², it is still only app. 50 % of the value of the EU average.

Total length of motorways, expressways, slips and 1st - IIIrd class roads	18 040 km
Motorways and motorways slip roads	419 km
Expressways and expressways slip roads	229 km
1st class roads (national roads)	3317 km
IIInd class roads (regional roads)	3639 km
IIIrd class roads (regional roads)	10411 km
Local roads (urban roads)	25350 km

Selected Indicators of Operational Programme Transport				
Indicator	Target	Actual situation	Measure	%
Length of modernized tracks	190	41,20	km	21,68
Length of new motorways	60	20,43	km	34,05
Length of new expressways	109,8	18,05	km	22,60
Length of new 1st class roads		6,77	km	
Total (roads)	169,8	45,25	km	26,65
Saving time (railway)	55/300	2/n/a	min.	n/a
Saving time (motorways and expressways)	73,4	n/a	EUR	n/a
Improve of congestion (motorways and expressways)	2,5	0,78	km/th.km ²	31,39

- Waterways in Slovak republic - List of monitored and prospectively monitored waterways

<i>Monitored waterways (WW)</i>			<i>Prospectively monitored WW</i>		
<i>WW</i>	<i>section [rkm]</i>	<i>class</i>	<i>WW</i>	<i>section [rkm]</i>	<i>class</i>
<i>Dunaj</i>	<i>1880,20-1867,00</i>	<i>VIb</i>	<i>Váh</i>	<i>70,00-240,00</i>	<i>Va, Vb</i>
	<i>1867,00-1708,20</i>	<i>VII</i>	<i>Morava</i>	<i>6,00-99,00</i>	<i>Vb</i>
<i>Váh</i>	<i>0,00-70,00</i>	<i>VIa</i>	<i>PrepojenieConnection Váh - Odra</i>		<i>Va, Vb</i>
<i>Morava</i>	<i>0,00-6,00</i>	<i>Vb</i>	<i>Váh</i>	<i>Žilina - Vrútky</i>	<i>I-III</i>
			<i>Hornád, Bodrog, Latorica, Laborec</i>	<i>Lower sections</i>	<i>IV, Va</i>
			<i>Hron, Ipel'</i>		<i>I-III</i>
			<i>Nitra</i>	<i>Mouth - Nitra</i>	<i>Va</i>

Comment: Monitored waterways – navigability is already monitored and maintained;
Prospectively monitored waterways – intended to navigation.

- List of airports and the map are shown in Appendix 3

1.2 Performance

- In railway transport delays occur due to obsolescence and depreciation of materials and equipment; bridges and culverts are usually at the end of technical lifetime. Despite the gradual modernization, presented lacks result distrust in reliability of railway transport.
- The road network has inadequate of the capacity in some sections and thus can occur congestion or delays in exposed times. These occur by major towns and on major routes in sections where the motorway is still completing there.
- Waterways require to eliminate missing sections in E20 E30 connection (Danube - Oder – Elbe) and Vah – Odra connection (E51). Moreover remedy of lacks is significant in technical and navigation parameters in strategic narrow sections of the rivers Danube and Vah.
- The financial and economic crisis as well as low purchasing power of Slovak citizens and small number of carriers serving the Slovak market resulted in continuous decline in domestic and international air transport.

2 MAJOR PROJECTS AND FUNDING

■ The system of so-called Cretan corridors in the territory of the SR includes the following railway sections: Corridor IV: state border ČR/SR – Kúty – Bratislava – Štúrovo – state border SR/MR, branch of the Corridor Va: Bratislava – Žilina – Košice – Čierna nad Tisou – state border SR/Ukraine, Corridor VI: Žilina – Čadca – Skalité – state border SR/PR. These corridors are belonging to TEN-T corridors.

By the performance of activities the modernisation of railway transport infrastructure (Appendix 2) the main projects ensures:

- ✓ The interoperability of modernised, planned and implemented new track sections of the Trans European network TEN-T,
- ✓ The achievement of at least standards defined in the AGC and AGTC agreements i.e. the increase of the speed limit on the route of conventional railway tracks up to 160 km/h (with potential operation with the speed up to 200 km/h for train sets with tilting bodies) and for selected goods train up to 120 km/h with electrified operation,
- ✓ The enhancement of operation quality, reliability, cost-effectiveness and safety,
- ✓ The mobility support of mobility and orientation handicapped passengers.

■ Three European transport corridors pass through the territory of the SR, namely the Corridors IV, Va and VI, that are formed within the road network of the SR by motorways D2, D1 and D3. In addition, the supplementary network to the TEN-T network in the Slovak territory consists of corridors copying the expressways R3 and R4.

By the performance of activities the modernisation of road transport infrastructure the main projects ensures:

- to improve the traffic flow - increasing of the traffic speed, safety, and quality environment,
- to decrease the number of accidents on the road,
- to ensure the driving comfort for road users,
- increasing in the region productivity and tourism,
- sustainable development of the EU and the Slovak Republic.

■ The main goal in the sphere of inland water-operation is the implementation of River Information Services Project in accordance with EU Directive 2005/44/EC of the TEN-T Project IRIS Europe.

For the time being State Budget, EU Funds and in limited scope PPP are the main finance sources:

- Instrument for Structural Policies for Pre-Accession (ISPA)

Instrument for Structural Policies for Pre-Accession (ISPA)	Allocation
	€
Railway infrastructure	308 551 250
Road infrastructure	54 149 200
Technical Assistance	3 800 000
Total	366 500 450

- Cohesion Fund (2004 – 2006) and European Regional Development Fund (2004 - 2006)

Cohesion Fund (2004 – 2006)

Cohesion Fund (2004 – 2006)	Allocation
	€
Railway infrastructure	89 316 000
Road infrastructure	190 246 000
Total Cohesion Fund	279 562 000

Operational Programme Basic Infrastructure (Transport Infrastructure 2004 – 2006)

European Regional Development Fund - Priority 1		Allocation of the OPBI
		€
Measure 1.1	Modernisation and development of the railway transport infrastructure	67 185 655
Measure 1.2	Modernisation and development of the road transport infrastructure	136 744 153
Measure 1.3	Modernisation and development of the air transport infrastructure	4 261 687
Total ERDF		208 191 495

- Cohesion Fund and European Regional Development Fund (ERDF) 2007 - 2013

Operational Programme Transport (2007 – 2013)

Priority Axis	EU Sources	National sources	Allocation of the OPT
	€	€	€
Modernisation of the railway infrastructure	782 746 878,00	138 131 802,00	920 878 680,00
Road infrastructure (Motorways –TEN-T)	972 333 473,00	171 588 260,00	1 143 921 733,00
Intermodal transport infrastructure	102 620 947,00	18 109 579,00	120 730 526,00
Infrastructure of integrated transport systems	471 794 200,00	83 257 800,00	555 052 000,00
Total Cohesion fund	2 329 495 498,00	411 087 441,00	2 740 582 939,00
Expressways	354 220 000,00	62 509 412,00	416 729 412,00
First-class roads	386 574 961,00	68 219 111,00	454 794 072,00
Public railway passenger transport	88 510 567,00	88 510 567,00	177 021 134,00
Technical Assistance	48 103 569,00	8 488 865,00	56 592 434,00
Total ERDF	877 409 097,00	227 727 955,00	1 105 137 052,00
Total OPT	3 206 904 595,00	638 815 396,00	3 845 719 991,00

As for PPP Projects – one project expressway R1 Pribina is already finished and operated by private partner. The project is PPP DBFOM and consists of 4 sections:

1. **Nitra, západ - Selenec** length 12,6 km;
2. **Selenec - Beladice** length 19 km;
3. **Beladice - Tekovské Nemce** length 14,3 km;
4. **Banská Bystrica – northern bypass** length 5,7 km.

The Slovak Republic wants to continue with PPP projects particularly where it isn't possible to use EU funds and where it is economically advantageous. They will be used by construction of motorway D4 and adjacent sections of expressway R7.

The fees from electronic toll and vignettes are used for financing maintenance of motorways and expressways. Maintenance of I-st class roads is provided by the Slovak Road Administration and is funded from state budget. Regions finance maintenance of II-nd and 3-rd class roads and communities finance maintenance of local roads.

■ **Waterways:** So far, EU Funds have been spent for TEN-T River Information Services Project partly cofinanced from State Budget. It is likely that in the forthcoming Programme Period 2014 – 2020 priority axis for the inland waterways development will be available by which European Funds could be used in a greater extent. Maintenance of the Danube is financed entirely from the State Budget as (according to the Belgrade Convention) operation on this waterway may not be charged. In period 2007 – 2011 amount € 16.5 mill. was spent from the State Budget only to such maintenance as dredging the shallow water/sandbanks.

- In 2012 finished construction and put into operation Sliač Airport terminal and second part of Bratislava Airport terminal. Investments from State Budget in airport infrastructure are negligible in comparison with other transport modes. Moreover in this field PPP Projects are not tackled.

3 STRATEGIC PLANS

The location and construction of transport infrastructure based on traffic requirements of the society are conditioned by the local territorial division and by the character of the territory. The indicated aspects are fully taken into account by the Conception of Territorial Development of Slovakia 2001 (CTDS 2001) as well as by conceptions of development of the individual transport modes. The CTDS 2001 creates the long-term spatial reserve for the construction of transport infrastructure in the individual regions in the form of the Government resolution, as well as in the form of a binding regulation.

In the effort to eliminate negative impacts of the transport infrastructure on the ambient environment, the implementation of each transport project is preceded by the process of environment impact assessment (EIA) within the meaning of the Act of the National Council of SR No 24/2006 Coll. on environmental impact assessment and on amendments to certain Acts.

Vision is to achieve adequately high and stable growth of the Slovak economy, on the assumption of the convergence of the socio-economic development to the most developed countries. The improvement of the competitiveness performance of the regions is directly dependent on the execution of structural changes in the regions, comprising the development and the modernisation of transport infrastructure. Development of transport infrastructure will become a key instrument for the removal of disparities between the individual regions. The aim of transport policy is to improve the access of regions to the superior transport infrastructure of multimodal corridors (TEN-T network), international and national corridors, and the interconnection of regions. These will have a positive impact in the strengthening of the internal market, territorial cohesion and the creation of conditions for the generation of resources and finally for the enhancement of the attractiveness of the SR for investors and the tourism.

Transport Policy of the EU promotes equal rights for cleaner waterways transport to other modes of transport in terms of competitiveness. This goal can be achieved only by providing the waterways with guaranteed parameters corresponding to capacitive and safety requirements. Slovakia participates in this endeavor through various European initiatives such as the Dnube Declaration, the Danube Strategy, Action Program promoting Inland Waterway Transport in the EU - Naiades, etc.

The crucial strategic plan in air service is entrance of strategic partners in the form of concession to the Bratislava Airport.

3.1 Long Term

- Modernisation of the railway track Púchov – Považská Teplá (700 mil. €);
- D1 Višňové – Dubná Skala (1 000 mil. €);
- Complex solution of the Danube navigability in section above Bratislava and under section Gabčíkovo – Nagymaros, entire Vah-waterway reconstruction and modernization (financial scope not available);
- Construction of Cargo terminal in Bratislava airport.

3.2 Mid Term

Projects which will be realized within the OPT (EU funds):

Expected investments in motorways are 1 298 mil. €:

- D1 Jánovce – Jablonov,
- D1 Fričovce – Svinia,
- D1 Dubná Skala – Turany,
- D1 Turany – Hubová,
- D1 Hubová – Ivachnová,
- D3 Svrčinovec – Skalité.

Expected investments in expressways are 619 mil. €:

- R2 Žiar nad Hronom, bypass,
- R4 Košice – Milhošť,
- R2 Zvolen east – Pstruša,
- R2 Pstruša – Kriváň,
- R2 Ruskovce – Pravotice,
- R3 Tvrdošín – Nižná.

Expected investments in 1st class roads are 327 mil. €:

- I/67 Prešov – škultétyho ZVL,
- I/75 Veľký Krtíš - Pôtor, reconstruction,
- Horný Zemplín - reconstruction, deal with safety road I/15 Sedliská – Holčíkovce,
- I/73 Šarišský Štiavnik - Hunkovce; decrease of accident,
- I/75 Galanta - bypass; 3rd phase,
- I/50 Ružová osada - reconstruction, accident place,
- I/66 Polomka – critical point,
- I/72 Zbojská, sedlo - Tisovec, Čertova dolina,
- I/66 Brezno – bypass,
- I/68 Plavnica diversion road,
- I/68 Sabinov diversion road,
- I/77 Bardejov south-east bypass,

Expected investments in railway infrastructure are 1 947 mil. €:

- Modernisation of the railway track Nové Mesto nad Váhom – Púchov; section Trenčianska Teplá – Beluša,
- Modernisation of the railway track Nové Mesto nad Váhom – Púchov; section Beluša – Púchov,
- Modernisation of the railway track Nové Mesto nad Váhom – Púchov, section Zlatovce – Trenčianska Teplá,
- Modernization of corridor, state border Czech republic – Slovak republic – Čadca – Krásno nad Kysucou,
- Intermodal transport infrastructure in Bratislava, Žilina, Košice and Leopoldov,
- Infrastructure of integrated transport systems in Bratislava and Košice.

Mid Term projects financed entirely from the State Budget:

- Reconstructin and completion of port edges in Public Ports of Bratislava and Komárno
- Project anad construction of the Kolárovo-Dam
- Reconstruction of Poprad-Tatry airport and Bratislava airport runways
- Construction of the airport terminal in Poprad-Tatry

4 ASSESSMENT METHODOLOGY

Concerning to the past, particular projects were assessed in the sense of Operational Transport. All investment projects have to be assessed in the sense of Environmental Impact Assessment (EIA) and NATURA 2000. The major element for assessment is traffic intensity.

For the purposes of prioritization of transport infrastructure projects in Slovakia in an objective and transparent manner we can implement the four defined phases of the UNECE methodology in its final form, which highlights projects have the highest added value and thus should be implemented in the first phase. In the first step the methodology deals with definition and selection of relevant projects that can be analyzed and assessed. In the second step it is necessary to prepare the socio-economic forecast of the country and an alternative estimate of the development of transport and transport network at the macro-level as the basis for achievement of an objective attitude of the assessment commission in the implementation of analytical activities. The third step represents the assessment of selected investment projects based on defined criteria that are set out in the following chapters of this report. The final phase deals with analysis of results of the multi-criteria assessment with the aim to draw up the Plan of Development of Infrastructure in Slovakia (MASTER PLAN). This phase includes the technical prioritization, its updating and resulting draft of financial feasibility and rough estimate of time required for the implementation of investment projects.

Weight values for individual criteria

WA		
WA1	- Degree of urgency (C_{A1})	12
WA2	- Cost effectiveness (C_{A2})	6%
WA3	- Relative investment costs (C_{A3})	8%
WA4	- Level of transport demand (C_{A4})	12%
WA5	- Financial feasibility (C_{A5})	6%
WB		
WB1	- Relative importance of international demand for passenger transport (C_{B1})	10%
WB2	- Relative importance of international demand for freight transport (C_{B2})	10%
WB3	- Elimination of black spots (C_{B3})	13%
WB4	- Interconnection of existing networks (C_{B4})	10%
WC		
WC1	- Settlement-planning development of regions (C_{C1})	3%
WC2	- Environmental impact (C_{C2})	5%
WC3	- Influence on economic development of regions (C_{C3})	5%
TOTAL		100%

Ministry has developed draft of multi-criterial analysis (MCA) of project assessment in April 2012. MCA will be used for project prioritisation in the following programming period 2014 – 2020.

Cost-benefit analysis is one of the complex models for assessment of the investment projects. CBA as part of assessment of the investment project application for the co-financing from the EU funds should provide evidence that the project is:

- desirable from a socio-economic point of view. This is demonstrated by the result of the economic analysis and particularly by a positive economic net present value;
- consistent with the operational programme and other Community policies. This is achieved by checking that the output produced by the project contributes to the attainment of the programme and policy goals; and
- in need for co-financing. More specifically, the financial analysis should demonstrate the existence of a funding gap (negative financial net present value) and the need for Community assistance in order to make the project financially viable. Alternatively any possible involvement of State-aid rules should be declared.

Following all the above mentioned aspects, the cost benefits analysis serves as the support tool for decision making of the European Commission regarding the co-

financing of the investment projects from the Cohesion fund and ERDF. Again, further information about purpose of the CBA analysis may be found in the Guide: Article 40(e) of Regulation 1083/2006 states that the managing authorities are required to provide a CBA for major projects to be financed under their Operational Programmes for cohesion policy. This makes CBA an input, amongst others, for decision making on major project co-financing by the EU. CBA, i.e. financial and economic project appraisal, including risk assessment, may be complemented by other studies, for example cost-effectiveness and multi-criteria analyses, if the project is likely to have important non-monetary effects, or economic impact analysis, in the case of significant macroeconomic effects.

Annex

AD 1.3 ZOZNAM LETÍSK A HELIPORTOV

AD 1.3 INDEX TO AERODROMES AND HELIPORTS

1.3.1 Letiská

1.3.1 Aerodromes

Názov letiska Smerovacia značka Aerodrome name Location indicator	Typ letiska Type of aerodrome	Povolený druh prevádzky na použitie letiska Type of traffic permitted to use the aerodrome				Referencia na sekciu AD a poznámky Reference to AD Section and remarks
		Medzinárodná - vnútroštátna International - National (INTL - NTL)	Verejná - neverejná Public - Non-public	IFR - VFR	S - Pravidelná NS - Nepravidelná MIL - Vojenská AW - Letecké práce S - Scheduled NS - Non-scheduled MIL - Military AW - Aerial works	
1	2	3	4	5	6	7
BOLEŘAZ/ŠTEFAN BANIČ LZTR	civilné civil	NTL	neverejná non-public	VFR	NS	*
BRATISLAVA/M. R. Štefánik LZIB	civilné civil	INTL - NTL	verejná public	IFR - VFR	S - NS	AD 2-LZIB
DUBNICA LZDB	civilné civil	NTL	verejná public	VFR	NS	AD 4-LZDB
DUBOVÁ LZDV	civilné civil	NTL	neverejná non-public	VFR	NS	*
HOLIČ LZHL	civilné civil	NTL	neverejná non-public	VFR	NS	*
JASNA LZJS	civilné civil	NTL	neverejná non-public	VFR	AW	*
KAMENICA NAD CIROCHOU LZKC	civilné civil	NTL	neverejná non-public	VFR	NS	*
KOŠICE LZKZ	civilné civil	INTL - NTL	verejná public	IFR - VFR	S - NS	AD 2-LZKZ
KRÁĽOVÁ LZKS	civilné civil	NTL	neverejná non-public	VFR	NS	*
LUČENEC LZLU	civilné civil	NTL	neverejná non-public	VFR	NS	*
MALACKY LZMC	vojenské military	NTL	-	-	MIL	MIL AIP
MALÉ BIELICE LZPT	civilné civil	NTL	verejná public	VFR	NS	AD 4-LZPT
MARTIN LZMA	civilné civil	NTL	verejná public	VFR	NS	AD 4-LZMA
NITRA LZNI	civilné civil	INTL - NTL	verejná public	VFR	NS	AD 4-LZNI
NOVÉ ZÁMKY LZNZ	civilné civil	NTL	verejná public	VFR	NS	AD 4-LZNZ
OČOVÁ LZOC	civilné civil	NTL	neverejná non-public	VFR	NS	*

Názov letiska Smerovacia značka Aerodrome name Location indicator	Typ letiska Type of aerodrome	Povolený druh prevádzky na použitie letiska Type of traffic permitted to use the aerodrome				Referencia na sekciu AD a poznámky Reference to AD Section and remarks
		Medzinárodná - vnútroštátna International - National (INTL - NTL)	Verejná - neverejná Public - Non-public	IFR - VFR	S - Pravidelná NS - Nepravidelná MIL - Vojenská AW - Letecké práce S - Scheduled NS - Non-scheduled MIL - Military AW - Aerial works	
1	2	3	4	5	6	7
PIEŠŤANY LZPP	civilné civil	INTL - NTL	verejné public	IFR - VFR	S - NS	AD 2-LZPP
POPRAD-Tatry LZTT	civilné civil	INTL - NTL	verejné public	IFR - VFR	S - NS	AD 2-LZTT
PREŠOV LZPW	vojenské military	NTL	-	-	MIL	MIL AIP
PRIEVIDZA LZPE	civilné civil	INTL - NTL	verejné public	VFR	NS	AD 4-LZPE
RAŽŇANY LZRY	civilné civil	NTL	neverejné non-public	VFR	NS	*
RUŽOMBEROK LZRU	civilné civil	NTL	neverejné non-public	VFR	NS	*
SENICA LZSE	civilné civil	NTL	neverejné non-public	VFR	NS	*
SLIAČ LZSL	vojenské s civilnou prevádzkou military with civil traffic	INTL - NTL	verejné public	IFR - VFR	S - NS - MIL	AD 2-LZSL
SPIŠSKÁ NOVÁ VES LZSV	civilné civil	NTL	verejné public	VFR	NS	AD 4-LZSV
SVIDNÍK LZSK	civilné civil	NTL	verejné public	VFR	NS	AD 4-LZSK
ŠURANY LZSY	civilné civil	NTL	neverejné non-public	VFR	NS	*
TRENČÍN LZTN	civilné civil	NTL	neverejné non-public	VFR	NS	AD 4-LZTN
ŽILINA LZZI	civilné civil	INTL - NTL	verejné public	IFR - VFR	NS	AD 2-LZZI

Poznámka:

* - informácie o leteckej prevádzke a o type AD poskytujú prevádzkovatelia príslušných letísk

Note:

* - Information about air traffic and type of AD is provided by aerodrome operators

AERODROME - INDEX CHART

SLOVAK REPUBLIC

