





Ministry of Transport, Posts and Telecommunications of the SR Managing Authority for the Operational Programme Transport 2007 - 2013

# Operational Programme Transport 2007-2013

9 August 2007 Bratislava

1	INTRODUCTION	1
2	PREPARATION OF THE OPERATIONAL PROGRAMME	3
2.1	Process of preparation of OP – application of the partnership principle	3
2.2	Ex ante evaluation	3
	<ul> <li>2.2.1 Expected results and impacts</li> <li>2.2.2 Lessons from previous period</li> <li>2.2.2 Approximate of the proposed implementation system</li> </ul>	5 5
2.3	2.2.3 Appraisal of the proposed implementation system Strategic environmental assessment	6 6
3	DESCRIPTION OF ACTUAL SITUATION	8
3.1	Macroeconomic indicators	9
	<ul><li>3.1.1 Gross domestic product in relation to transportation</li><li>3.1.2 Investments in the transport infrastructure</li></ul>	9 10
3.2	Analysis of selected transport operating indicators of traffic	12
	<ul> <li>3.2.1 Transport market of selected modes of goods transport</li> <li>3.2.2 Transport market of passenger transport</li> <li>3.2.3 Transport performances and intensities of road transport</li> </ul>	12 13 16
3.3	Analysis of transport infrastructure indicators	18
	<ul> <li>3.3.1 Analysis of railway infrastructure</li> <li>3.3.2 Analysis of road infrastructure</li> <li>3.3.3 Analysis of intermodal transport infrastructure</li> <li>3.3.4 Analysis of public railway passenger transport</li> </ul>	18 20 26 27
3.4	Environmental impacts of transport	32
	<ul> <li>3.4.1 Transport infrastructure and environment</li> <li>3.4.2 Negative impacts of transport from traffic operations</li> <li>3.4.3 Road safety and accident rate</li> </ul>	32 32 34
3.5	<b>Results of the implementation of the programming period 2004 – 2006</b>	36
	<ul><li>3.5.1 Pre-accession aid</li><li>3.5.2 Programming period 2004-2006</li></ul>	36 37
3.6	SWOT analysis	42
3.7	Main disparities and development factors	45
4	STRATEGY OF THE OPERATIONAL PROGRAMME	47
4.1	Basis of the OP strategy	47
	<ul> <li>4.1.1 Results of the analysis of actual situation</li> <li>4.1.2 Vision and strategy of NSRF</li> <li>4.1.3 Basic strategic documents</li> </ul>	47 47 48
4.2	Aims of OP	48
	<ul><li>4.2.1 Global aim</li><li>4.2.2 Specific aim of OP</li></ul>	48 51

4.3	Descri	iption of the strategy
	4.3.1	Railway infrastructure
	4.3.2	Road infrastructure
	4.3.3	Intermodal transport infrastructure
	4.3.4	Public passenger transport
	4.3.5	Priority concentration of support
	4.3.6	Territorial concentration of support
	1.5.0	
5	PRIO	RITY AXES
5.1	Priori	ty axes financed from the Cohesion Fund
	5.1.1	Priority axis 1 – Railway infrastructure
	5.1.2	Priority axis 2 – Road infrastructure (TEN-T)
	5.1.3	Priority axis 3 – Intermodal transport infrastructure
	5.1.4	Priority axis 4 – Infrastructure of integrated transport systems
5 2		
5.2		ty axes financed from the ERDF
	5.2.1	Priority axis 5 – Road infrastructure (expressways and first-class roads)
	5.2.2	Priority axis 6 – Public railway passenger transport
	5.2.3	Priority axis 7 – Technical assistance
6	HORI	ZONTAL PRIORITIES
6.1	Sustai	nable development
6.2	Equal	ity of opportunities
6.3	Inform	nation society
7	COM	PLIANCE OF THE STRATEGY WITH POLICIES, DOCUMENTS AND
	AIMS	
7.1	Comp	liance with EU strategic documents and policies
	7.1.1	EC strategic guidelines
	7.1.2	Lisbon and Göteborg Strategies
	7.1.2	European transport policy
	7.1.3	EC legislation in the area of cohesion policy
	7.1.5	EC legislation in the area of competition rules
	7.1.6	EC legislation in the area of public procurement
	7.1.7	EC legislation in the area of rules of the protection and amelioration of the
	/.1./	environment
	7.1.8	EC legislation in the area of rules of the equality of opportunities, gender equality
	7.1.0	and non-discrimination
7.2	Comp	
	7.2.1	liance with strategic documents and policies of the SR
		liance with strategic documents and policies of the SR NSRF and OP
		NSRF and OP
	7.2.2	NSRF and OP Strategy of competitiveness of Slovakia until the year 2010 / National Reform
		NSRF and OP Strategy of competitiveness of Slovakia until the year 2010 / National Reform Programme
	7.2.3	NSRF and OP Strategy of competitiveness of Slovakia until the year 2010 / National Reform Programme National strategy of sustainable development
	7.2.3 7.2.4	NSRF and OP Strategy of competitiveness of Slovakia until the year 2010 / National Reform Programme National strategy of sustainable development Conception of territorial development of the SR
	7.2.3	NSRF and OP Strategy of competitiveness of Slovakia until the year 2010 / National Reform Programme National strategy of sustainable development

8	FINANCIAL PLAN					
8.1	1 Financial plan of OP – annual commitments					
8.2		cial plan of OP for the whole programming period structured by priority nd financial resources	89			
8.3	Alloca	tion of support from the Funds to the support category at the level of OP	90			
9	IMPL	EMENTATION SYSTEM	_ 91			
9.1	Autho	rities involved in management and implementation of OPT	91			
	9.1.1 9.1.2 9.1.3 9.1.4	Central Co-ordinating Authority Managing Authority of the Programme Functions of the Managing Authority Monitoring Committees	91 91 92 93			
9.2	Monit	oring	94			
9.3	Evalu	ation	95			
9.4	IT mo	nitoring system for the SF and CF	96			
9.5	Electr	onic data exchange with the European Commission	97			
9.6	Inform	nation and Publicity	98			
9.7	<b>Finan</b> 9.7.1	cial management, control and audit System of cash flows	<b>99</b> 101			
10	ANNE	EXES	104			
	Abbrev Compo List of	Annexes viations and Acronyms sition of the Working Party for the Preparation of OPT Tables Figures	104 104 105 106 108			

## **1** Introduction

The Operational Programme Transport (hereinafter referred to as "OPT") represents a programme document of the Slovak Republic for drawing on the EU funds in the transport sector for the years 2007 to 2013. This document contains a set of aims and priority axes including multi-year measures for their achievement to be implemented with utilisation of financial support from the Cohesion Fund and the European Regional Development Fund ("ERDF").

The OPT was prepared on the basis or in accordance with:

- Council Regulation (EC) No 1083/2006, laying down general provisions on ERDF, ESF and CF and repealing the Regulation (EC) No 1260/1999 ("General Regulation");
- Regulation of the EP and the Council (EC) No 1080/2006 on the ERDF and repealing the Regulation (EC) No 1783/1999;
- Regulation of the Council (EC) No 1084/2006, establishing the Cohesion Fund, and repealing the Regulation (EC) No 1164/94.

From the Structural Funds within the aim "Convergence" may be supported regions corresponding to the level NUTS 2, i.e. regions whose gross domestic product ("GDP") per inhabitant measured by the purchasing power parity for the last three available years is less than 75% of the average of the Community. The territory of the SR falling within this aim comprises all regions with the exception of Bratislava. Member States whose GNP for the last three available years is lower than 90% of the average of the Community are eligible for the support from the Cohesion Fund. The SR meets this condition, and on this basis the whole Slovak territory is eligible for the support from CF, from the view of the development of transport infrastructure.

The OPT ties up with aims and priorities of the National Strategic Reference Framework 2007 – 2013 ("NSRF") as a basic reference instrument for the programming of the EU funds in the area of cohesion and regional policies. The OPT implements and works out the strategic priority of the NSRF "Infrastructure and Regional Accessibility" through priorities and plans for the development of transport infrastructure and public passenger transport.

The global aim of the Operational Programme is the support of the sustainable mobility through the development of transport infrastructure and public passenger transport. This aim will be fulfilled through a set of specific aims:

- Specific aim 1 Modernisation and development of railway infrastructure,
- Specific aim 2 Modernisation and development of road infrastructure,
- Specific aim 3 Modernisation and development of intermodal transport infrastructure,
- Specific aim 4 Development of public passenger transport.

The specific aims mentioned above will be achieved through the implementation of the strategy of defined priority axes:

- at the level of the Cohesion Fund:

- Priority axis 1 Railway infrastructure
- Priority axis 2 Road infrastructure (TEN-T)
- Priority axis 3 Intermodal transport infrastructure
- Priority axis 4 Integrated transport systems infrastructure

- at the level of the ERDF:

- Priority axis 5 Road infrastructure (expressways and first-class roads)
- Priority axis 6 Public railway passenger transport
- Priority axis 7 Technical assistance

In programming period 2007 - 2013, the transport sector of the Slovak republic will be supported from the EU funds resources allocated among three Operational programmes (see Table 49: Complementarity of Operational programmes in relation to the transport).

OPT has a character of sectoral operational programme, which resolves the requirements at the level of state competence (MTPT SR) firstly as a package of measures with transregional or even international significance. The attention will be paid especially to the building and modernisation of transport infrastructure on approved routes of Trans-European transport network passing through the Slovak territory, with clear cohesion with national economy. Provision of effective, flexible and safe transport infrastructure, in relation to economic activities, will lead to the recovery of development perspectives by simplification of free movement of labour and goods.

The measures of programme will be also focused on the support of transport infrastructure development in lesser developed regions of SR and their connection to the TEN-T network, modernisation of other selected railway and road network, support of the public passenger transport through integrated transport systems as well as on the quality improvement of services offered in transport.

OPT was prepared and will be implemented in accordance with principle of concentration of support on primary objectives of department with achievement of maximum possible benefit, so that there would be no atomisation of financial interventions.

# 2 Preparation of the Operational Programme

## 2.1 **Process of preparation of OP – application of the partnership principle**

The application of the partnership principle in the framework of the EU cohesion policy concerns activities related to the preparation, implementation, monitoring and evaluation of OPT.

In accordance with Article 11 of the General Regulation the partnership principle was applied during the preparation of OPT. The definition of the individual priority axes and their contents resulted from the work of working parties for the preparation of NSRF 2007 - 2013 and the Working Party for the Preparation of the Operational Programme Transport.

The Working Party for the Preparation of the Operational Programme Transport was composed of representatives of the relevant ministries, economic and social partners, upper territorial units, self-government and non-governmental organisations.

The Working Party has first met with the aim to familiarise itself with the timetable and the OPT strategy on 17 March 2006. In accordance with the timetable the OPT was subsequently compiled, taking into account comments submitted by members of the Working Party. The second meeting of the Working Party was held on 23 May 2006 when an adapted OPT was presented in accordance with the National Strategic Reference Framework approved by RG SR No 457/2006, with regard to priority axes and financial allocations. During the second meeting of the Working Party the progress in the preparation of the Programme was stated and no fundamental comments were made on the part of the partners.

The last third meeting of the Working Party took place on 8 November 2006, at which a version of OP adapted within the meaning of RG SR No 832/2006 relating to the amendment of the NSRF was discussed by the partners. At this meeting, no fundamental remarks were raised and submitted version of operational programme was adopted by consensus of work group members.

During the process of the preparation of NSRF 2007 – 2013 the aim of MTPT SR was to solve problems of the second and third-class roads within a single OPT aimed to the coordinated development of transport infrastructure from the EU funds. For this purpose a number of meetings of representatives of the MTPT SR with representatives of upper territorial units as well as MCRR SR took place. During these meetings the integration of problems of the second and third-class roads in OPT was presented on the part of MTPT SR and hence the synergy of the development of road infrastructure was achieved. By the decision of the Government of the SR relating to the NSRF this problem will be solved within the Regional Operating Programme (ROP), by which the demarcation line between OPT and ROP in the area of the development of road infrastructure was established.

The principle of partnership and cooperation between the Managing Authority for OPT (MTPT SR) and the self-governments is a permanent process progressing from the preparation phase up to the implementation of specific projects, mainly in relation to the Priority axis 4 - Integrated transport systems infrastructure, where a common action in solving of the issues of public passenger transport is necessary. The result of the cooperation is an agreement of specific agreements and memorandums (see Chapter 5.1.4).

## **2.2** Ex ante evaluation

Ex ante evaluation at the level of NSRF

The process of interim evaluation of priorities of the Ministry of Transport was implemented already in the framework of the interim evaluation of NSRF 2007-2013, i.e. during its preparation and compilation of the individual parts of this document. The interim evaluation of NSRF was executed by an external organisation – Institute of Slovak and World Economy at the Slovak Academy of Sciences.

In a summary evaluation opinion issued as per 31 August 2006 the evaluator stressed the gradual positive development in the preparation of the strategy, particularly the long-term vision of the gradual convergence of the SR, whereby it further recommended to base the selection of scenarios on the principle of concentration of financial resources and on its basis to consider where they will be directed.

#### Ex ante evaluation at the level of OPT

The MTPT SR as a managing authority executed an interim evaluation of OPT. The purpose of the interim evaluation of OP was to generally assess the justification, consistency and coherence of the strategy with strategic documents. In the process of selection of the evaluator MTPT SR prepared the General Conditions of Tender for the ex ante evaluation of OPT 2007–2013, including the aim-setting and relevant evaluation questions. The main objective of the ex ante evaluation of OPT for the period of the years 2007 - 2013 was:

- To evaluate analytic basic information, including SWOT analysis, identification of disparities and development factors,
- To evaluate the suitability, justification and consistency of the OPT strategy, i.e. assess its internal logic so as to create logic links between results of analyses, aims, priorities, financial resources and measurable indicators, including the evaluation of its expected impacts;
- To evaluate the coherence of the OPT strategy with policies and strategic documents of the SR and the European Union,
- To assess the quality of existing and proposed management systems in terms of their functionality and effectiveness for management, monitoring, evaluation and financial management processes.

The ex ante evaluation of OPT was executed by an external evaluator - Výskumný ústav Dopravný, a. s. selected through the public procurement in accordance with the Act No 25/2006 Coll. on Public Procurement. The ex ante evaluation (contract) was awarded to the external evaluator for the period of May, June and July 2006 and financed from technical assistance under the Operational Programme Basic Infrastructure 2004–2006 for Priority 1 – Transport Infrastructure. The ex-ante evaluation process of OPT was divided into three basic stages the outputs of which were: 1. interim report, 2. interim report and final report. The OPT was currently completed and modified within the meaning of the individual evaluation stages. On basis of external evaluator comments, presented in individual reports, the operational programme has been continuously amended, mainly with introductory chapter – summary content of the document; the analytical part, including SWOT analysis has been amended, extended and balanced; statistical indicators have been amended and revised; chapter with a description of environmental effect of transport has been amended; system of programme and priority axes indicators have been done, etc.

In the final report the evaluator among others stated that:

• OPT is prepared in accordance with the National Strategic Reference Framework for the period of years 2007–2013, ties up with its aims and priorities and works out the strategic priority "Infrastructure and Regional Accessibility" in the form of specific priority "Transport Infrastructure and public passenger transport", with priority axes being

focused on the development of railway, road and intermodal transport infrastructure and of the public passenger transport;

- the proposed strategy is adequate, relevant and feasible in terms of its connection to the SWOT analysis and the achievement of its aims;
- the structure of the strategy ensures its internal logic, so that there are internal links between results of analyses, aims, priorities, financial resources and measurable indicators, including the evaluation of its expected impacts;
- the proposed aims and priorities financed from the European Regional Development Fund are in synergy with aims and priorities financed from the Cohesion Fund;
- the proposed strategy of OPT fully exhausts requirements for the compliance with the relevant EU documents and materials. In the area of coherence of the fulfilment of aims of Slovak national policies and the EU cohesion policy, OPT ensures the compliance with relevant national and strategic documents of the SR;
- the expected impacts of OPT on the economic, social and environmental situation in the SR represent a positive change in relation to the sustainable development of the SR.

## 2.2.1 Expected results and impacts

In contrast to the immediate results and outputs of single interventions (projects), the qualified and exact appraisal of total impacts and effects of OPT traffic investments is a complex process. It results mainly from the fact, that the transport has a public character and the scope of assessed impacts is exceeding the sector framework, whereby the proposed 7-years period will contain a wide scope and heterogeneity of interventions through specific operational programmes. It could be stated that qualitative transport infrastructure enhances and accelerates the development ambitions towards the sustainable convergence of SR to the EU 15 average. The influence, or the impact respectively, of the interventions into the transport infrastructure on the economic development of regions will prove itself directly as well, (especially) by the effect of employment increase throughout the realisation of the projects and indirectly, by the consequential development of region conditioned by the improvement of transport accessibility.

Proposed objectives and priorities financed from the European Regional Development Fund are in synergy with the objectives and priorities financed from the Cohesion Fund, whereby they are properly complementing themselves from both thematic and territorial aspects. The OPT priorities were evaluated as consistent and balanced at the level of objectives relevant, their quantification as well as their achievement facticity.

Until 2015, OPT will significantly influence the condition of railway and road infrastructure as well as the transport possibilities offer and shares in passenger transport. Interventions into the transport infrastructure will show themselves mainly in more effective and quality infrastructure and services in transport with positive impact on the economic development of regions, employment and environment.

## 2.2.2 Lessons from previous period

The evaluator accentuated that in contrast to the 2004 - 2006 period, new qualitative situation occurred, when the MTPT, from Intermediary body, became the Managing authority for individual operational programme. Such system of implementation represents a simplification of the process of programming, realisation, monitoring and assessment of OP – ergo the improvement of the general OPT management effectiveness.

Programme for development and modernisation comes out from the projects pipeline, which takes a reserve into an account, so it contains greater number of projects by reason of possible

problems appearance within the preparation and realisation of constructions. One of the possible identified risks relates to the necessity of more precise preparing of specific projects for their realisation, i.e. especially the preparation quality increase during the permit process and public procurement.

## 2.2.3 Appraisal of the proposed implementation system

The partnership principle will be also applied in the process of OPT implementation. Relevant partners will be engaged into the monitoring system, namely through their representatives in the Monitoring Committee for OPT (see Chapter 9.1.4 – Monitoring Committees). By reasons of specific situation and proprietorship status of transport infrastructure (concerns railway lines, motorways, expressways and first-class roads), the MTPT will not delegate the powers, activities and tasks in management system on no intermediary body whether acting for the self-governments and/or implementing agency.

On basis of experiences from the implementation of previous support, the evaluator in his final report stated that the proposed implementation system offers good initial assumes for successful management and implementation of support and will be able to ensure effective and correct realisation of planned interventions in compliance with requirements of EU and SR.

## 2.3 Strategic environmental assessment

For the purpose of environmental protection and contribution to the integration of environmental aspects into the preparation and approbation of the strategic document with regard to the support of the sustainable development, OPT was assessed within the meaning of the Act 24/2006 Coll. on Environmental Impact Assessment and on the amendment of certain acts. During this process direct and indirect environmental impacts of the proposed strategy were identified and assessed.

OPT as a strategic document is focused on the construction and modernisation of transport infrastructure of SR and its integration into the European transport system, achievement of more qualitative parameters of transport services, improvement of safety, reliability and quality of transport along the simultaneous decrease of negative environmental effects of transport.

The strategic environmental assessment (SEA) was executed concurrently with the ex ante evaluation of the operational programme. The external evaluator selected by means of public procurement in accordance with the Act No 25/2006 Coll. on Public Procurement was Výskumný ústav dopravný, a. s..

In accordance with the Act No 24/2006 Coll. on Environmental Impact Assessment the external evaluator drawn up the *"Report on the Evaluation of a Strategic Document"*, stating among others that:

- OPT will have a positive influence on the environment of urbanised areas of Slovakia;
- OPT will not have a significant negative impact on the protected natural environment and landscape;
- the assessment of the impact of the TEN-T transport system as a whole through the indicator of environmental effectiveness of the transport is positive;
- from the view of the indicator of demand for transport, traffic intensity and division of transport work OPT is evaluated positively, with prevailing regional benefits, whereby the parallel implementation of the motorway, railway and intermodal programmes on the routes of the main TEN-T corridors can be evaluated positively as a whole;

- the alternative implementation of OPT through the location of main transport corridors in the urbanisation areas of transport regions is compliant with binding part of the Conception of the Territorial Development of Slovakia 2001 and principles of the effective transport serviceability in Slovakia. The effective and environmentally friendly transport service in the national territory is adjusted to the provision of transregional and regional public and private services, economic and transport facilities in the centres of settlement. The location of the transport infrastructure maintains and develops the natural cohesion of regions;
- the evaluation of the influence of transport infrastructure of the TEN-T network as a whole through indicators of interconnection of the transport and land planning and the transport accessibility is very positive, which in the long term means benefits for the whole national territory;
- potential negative impacts of OPT on the natural environment, protected territories, development of environmental systems ("DES"), natural resources (water, soil) in both the zero and implementation alternatives were evaluated using indicators. At the level of SEA all assessed impacts of OPT on the natural environment were evaluated as less significant. It is not reasonable to envisage the elimination of the potential negative influence of transport infrastructure or traffic; neither is it reasonable to envisage the redirection of defined transport corridors, because more ecological alternatives are not available in the SR. For this reason the identified negative impacts resulting from the territorial projection of OPT activities and protected areas of DES, WCA components, as well as measures for mitigation of these impacts should be solved at the level of EIA for the individual transport projects.
- from the appraisal of OPT strategic document it results that the expected effects of its realisation are mostly positive, especially on urbanised areas of SR. Negative environmental and landscape effects will not have serious character, whereby it is necessary to keep the measures for its minimisation or elimination.

By course of Act No. 24/2006 Coll. on Environmental Impact Assessment, on 5 February 2007 there was a public hearing of the *"Report on the Evaluation of a Strategic Document"* at the MTPT, with the aim to discuss the report on the assessment with public and thereby to provide the opportunity for the general public to make proposals and remarks. No remarks have emerged from the public hearing.

The "*Report on the Evaluation of a Strategic Document*", including the outcomes from the public hearing was submitted to the Ministry of Environment of the SR, which has subsequently designated a qualified evaluator to draw up an independent opponent assessment. The assessment evaluated mainly the completeness and exactness of information listed in the report on the evaluation, it respected potential remarks of public as well as the process of assessment en bloc.

On 28 February 2007, the Ministry of Environment of the SR published "*Final Opinion from the Evaluation of a Strategic Document*", where on basis of results of the environmental effects assessment process of the strategic document, as well as on basis of opponent assessment, it **recommends** the approval of strategic document "Operational Programme Transport 2007-2013".

# **3** Description of actual situation

This section contains a macroeconomic analysis in the area of transportation and is drawn up at the levels NUTS 1, NUTS 2 and NUTS 3 to allow the identification of key disparities and definition of the strategy of the development of the sector from EU funds for the years 2007-2013.

The transport system should enable the quantitative and qualitative satisfaction of demand for transport needs. The transport system for the provision of transport needs and mobility of population consists of railway, road, air and waterborne transport systems and their subsystems (intermodal transport). In the nineties within the transport system a substantial part of goods transport was transferred from the railway to road transport and outputs of public railway passenger transport and road transport were transferred to the individual automobile transport. Due to this development the traffic loading of roads increased considerably. The sudden increase of the level of motorization caused transport problems in road traffic.

Road and railway transport may be regarded, in terms of their importance and outputs, as decisive transport systems by which 98% of the volume of goods traffic and 99% of the passenger traffic are realized. The level of the transport infrastructure and the mobile basis is an objective determining factor of the action power of the transport industry in its individual sections within the ongoing process of globalisation of the world economy.

Therefore programmes of the development of the transport system should take into account the development in the transport sector and its economic importance.

Fig. 1: Territorial systematisation of the SR



Unit	Number of territorial units	Territorial unit/units	Abbreviation
NUTS 1	1	Slovakia	SR
		Region of Bratislava	BA
NUTS 2	4	West Slovakia	ZS
NU182	4	Central Slovakia	SS
		East Slovakia	VS
		Region of Bratislava	BA
		Region of Trnava	TT
		Region of Nitra	NR
NUTS 3	8	Region of Trenčín	TN
NU155	8	Region of Banská Bystrica	BB
		Region of Žilina	ZA
		Region of Košice	KE
		Region of Prešov	РО

## **3.1** Macroeconomic indicators

#### **3.1.1** Gross domestic product in relation to transportation

Transportation and its importance in the fast changing world permanently increases. It is perceived not only as a means of mobility, but also as a means for the enhancement of the attractiveness of a territory, its economic potential and quality of life of its population. The transport service in the territory means a service provided to the population and a means of the integration into a wider territorial and economic context. The function of transportation as an important factor of domestic economy was even more accentuated following the accession of Slovakia to the EU. Necessary condition of the utilisation of the geographic advantage of the SR within the Community is the quality transport infrastructure corresponding to the increasing traffic requirements, but also meeting the requirements of the sustainable development.

The transport sector influences the national economy not only indirectly, but also by the direct contribution to the formation of GDP and by the employment. The transport sector has a strategic significance for further development of Slovak economy and considerably contributes to the functioning of European economy as a whole and to the realisation of internal market. In the transport sector it is concerning approximately 6.52% of Slovak GDP and about 4% of jobs. The gross domestic product of the SR is a summary indicator of the performance of economy and of the economic level of Slovakia and its regions. In 2004 in Slovakia GDP per capita measured in the purchasing power parity achieved the level of 52.1% of the average of the EU 25, but it is necessary to add that with significant regional disparities at the level of NUTS 2. The region of Bratislava has a special position not only in comparison with other Slovak regions, but also in comparison with the European average where it exceeds GDP per capita measured in the purchasing power parity of the EU 25. Thanks to it the region of Bratislava ranks among the most developed regions in the Central European countries. The other Slovak regions achieve the level of GDP representing 35 to 50% of the average of the EU 25.

In the period of years 1999 to 2003 the real growth of GDP of the Slovak Republic increased between years on the average by 3.1%, whereby during the period of years 2004 to 2006 its growth is expected to accelerate on the average by 5%.

Selected EU Member States 25	GDP/inhabitant measured in the purchasing power parity of the EU average in 2004 (%) EU 25 = 100 %
Republic of Poland	49.1
Slovak Republic	52.1
Republic of Hungary	60.4
Czech Republic	70.6
Portugal	72.4
United Kingdom	116.8
Belgium	118.9
Austria	123.2

Tab. 1:Level of GDP in selected member countries in comparison with the average of the EU25 in the year 2004

Source: Eurostat

In the year 2004 the transport sector contributed to the formation of GDP by 6.52%, whereby the transport sector comprises organisations with predominant transport activity, providing services in railway, road, waterborne, air and pneumatic transport, as well as secondary supporting activities in transportation. From the macroeconomic view national economic influences of transport are created by the increase of the added value. The relation between the transport and

the economic growth is documented by the increase of GDP in case of an increase of transport, whereby the dependence of GDP on the increase of transport has weakened in the recent period. It is caused particularly by the decrease of transport exigency, which is desirable from the long-term view of the achievement of the sustainable mobility.

## **3.1.2** Investments in the transport infrastructure

The modernisation and development of the transport infrastructure are a very time-consuming and financially and technically demanding process. Due to the high financial requirements of the modernisation and development of transport infrastructure it is necessary to ensure the optimal generation of resources and their effective utilisation. One of ways how to raise the required funds for the development of the transport infrastructure are resources from the EU funds.

In the year 2004 investment expenditures on the transport infrastructure (with the exception of expenditures on local roads) accounted for 1.047 % of GDP of the SR. However, based on the EC recommendation and according to the level of expenditures on the transport infrastructure in the developed EU countries, it would be desirable to allocate annual funds corresponding to about 2 - 2.5% of GDP to the Member States with an uncompleted and neglected network comparable with the SR for the construction and modernisation of the transport infrastructure.

Fig. 2: Share of investments in the transport infrastructure of the SR in relation to GDP



In the period of years 2000 to 2004 investments in the transport infrastructure represented nearly SKK 78 bn., whereby investments in the railway transport, including investments in the intermodal transport equipment, represented SKK 27.3 bn.. In the same period approximately SKK 48.4 bn. Were invested in the development of the road network, which is by SKK 21.1 bn. More than investments in the railway infrastructure.

During the period of years 2000 to 2004, 34.9% of total financial resources allocated to the transport infrastructure were invested in the railway transport infrastructure and 62% in the road transport infrastructure. The process of the implementation of investments in the transport infrastructure is shown in the following tables:

		Railway transport	Road transport	Waterborne transport	Air transport	Intermodal transport	UMT
Year	Total	Conventional railway tracks	and $\int_{\infty}^{\infty} - \int_{\infty}^{\infty}$	Waterways and ports	Airports	Terminals	Transport routes of transport systems
				(SKK mil.)			
2000	<b>12 318</b> 2 270		9 680	49	152	0	167
2001	<b>16 525</b> 7 306 8 718		8 718	31	174	60	177
2002	<b>21 739</b> 10 269		11 120	29	131	0	191
2003	<b>13 486</b> 3 761 9 253		33	230	0	209	
2004	13 907	3 629	9 611	50	455	0	162

Tab. 2: Investments in the transport infrastructure of the SR

The table 2 above shows the uneven allocation of investments to the road and railway transport infrastructures, where in the period of years 2000 and 2004 the share of investments in the road transport infrastructure represented approximately 78.6% and 69.1%, respectively, of total investments. On the other hand, investments in the development of the railway infrastructure only accounted for 18.4% and 26.1%, respectively, of total investments in the transport infrastructure in the said years.

In the year 2001 investment funds in the amount of SKK 60 mil., i.e. 0.36% of total investment funds for the infrastructure in the year 2001, were allocated for the development of intermodal transport terminals.

		Railway transport	Road transport	Waterborne transport	Air transport	Intermodal transport	UMT
Year	Total	Conventional railway tracks	Motorways and 1 <sup>st</sup> to 3 <sup>rd</sup> class roads	Waterways and ports	Airports	Terminals	Transport routes of transport systems
				(%)			
2000	100	18,43	78,58	0,40	1,23	0,00	1,36
2001	100	44,21	52,76	0,19	1,05	0,36	1,07
2002	100	47,24	51,15	0,13	0,60	0,00	0,88
2003	100	27,89	68,61	0,24	1,71	0,00	1,55
2004	100	26,09	69,11	0,36	3,27	0,00	1,16

Tab. 3: Share of investments in the transport infrastructure of the SR

Source: VÚD, a. s.

The high financial costs of the modernisation and development of the transport infrastructure require the optimal generation of resources and their effective utilisation. The level of expenditures on transport infrastructure in the SR in the period under review represents on the average approximately 1.5% of GDP, whereby for comparison purposes we indicate that in the countries of the EU 15 these expenditures are approximately at the level of 2 % of GDP.

		Railway transport	Road transport	Waterborne transport	Air transport	Intermodal transport	UMT
Year	Total	Conventional railway tracks	I to the class	Waterways and ports	Airports	Terminals	Transport routes of transport systems
				(%)			
2000	1.309	0.241	1.028	0.005	0.016	0.000	0.018
2001	1.619	0.716	0.854	0.003	0.017	0.006	0.017
2002	1.956	0.924	1.000	0.003	0.012	0.000	0.017
2003	1.112	0.310	0.763	0.003	0.019	0.000	0.017
2004	1.026	0.268	0.709	0.004	0.034	0.000	0.012

Tab. 4: Share of investments in the transport infrastructure in relation to GDP of the SR (current prices)

## **3.2** Analysis of selected transport operating indicators of traffic

#### **3.2.1** Transport market of selected modes of goods transport

In the year 2004 transport of goods in the SR decreased by 5.7% in the road transport and by 5.9% in the railway transport in comparison with the year 2000. In the year 2004 the total volume of traffic of goods by the freight transport of the SR decreased by 5.24% against the year 2000 and achieved the level of 230 166 thousand tones.

	Total freight	Selected transport modes					
Year	transport	Railway public transport Road haulage		Intermodal transport			
2000	244 686	54 177	188 901	564			
2001	242 764	53 588	187 624	632			
2002	215 990	49 863	164 427	756			
2003	226 122	50 521	174 149	855			
2004	230 166	50 445	178 085	952			

Tab. 5: Transport of goods by the freight transport of the SR

Source: VÚD, a. s.

For the period of years 2000 to 2004 the increase of 6.85% was recorded on the transport market in transport performance (tkm), whereby in the year 2004 the road transport achieved the transport performance of 18 517 mil. tkm, which represents nearly the double of transport performance of the railway transport in given year. Particularly due to changes in the structure of transported goods – the increase of consignments with lower weight and the decrease of the transport of bulk commodities, the road transport dominated in the division of operations (modal split) in the years 2000 to 2004.

	Total freight	Se	lected transport modes	•				
Year	transport	Railway public transport	Road transport	Intermodal transport				
		(mil. Tkm)						
2000	26 957	11 234	14 340	-				
2001	25 743	10 929	13 799	-				
2002	25 907	10 383	14 929	-				
2003	27 461	10 113	16 859	-				
2004	28 941	9 702	18 517	114				

Tab. 6: Transport performance of the goods transport of the SR

The table shows that the largest decrease of outputs and volumes of traffic was recorded in the railway transport, but in comparison of the share of the individual transport modes in the SR with some EU countries the railway transport in the SR further maintains a strong share of transport performance.



Fig. 3: Transport performance in freight goods transport in the Slovak Republic

In regard to low shares on the transport market, givenness of territory of the Slovak republic – existence and navigability of waterborne routes as well as regarding to state position and importance for economy SR the waterborne transport will not be a subject of support within the operational programme. In 2005 waterborne transport shared on movement by freight transport of SR approximately 0,6 %, while railway transport 21,3 % and road transport 78,1 %. Based on Act No. 575/2001 on the organisation of government activities and organisation of central state administration as amended by later regulations; the responsibility for waterway care - construction and maintenance thereof, was entrusted to the Ministry of Environment of the SR.

## **3.2.2** Transport market of passenger transport

Public interest in public mass passenger transport, outgoing from the EU approach, is to be considered as provision of basic transport needs of population, mainly transport to schools, jobs, health care institutions, bureaus and for provision of cultural, social and sport needs of citizens. These needs of population are realised by the system of mass transport of passengers in scope of urbanised area (UMT), suburban bus transport and railway transport on suburban and regional lines.

#### Urban mass transport

UMT in Slovakia is performed in two ways. In Bratislava, Košice, Prešov, Žilina and Banská Bystrica cities, it is provided by specialised transport enterprises owned by cities. In other towns it is provided by Slovak Bus Transport (SBT) enterprises, which are also performing the scheduled suburban bus transport. In the urban mass transport, the public service obligations are commissioned and financed by respective towns (communities).

#### Scheduled bus transport

The bus transport has a dominant position in satisfying the transport needs of population in SR, where within the framework of transport service of region it is achieving almost 90% share in performances of all transport systems in passenger transport. These needs of populations are performed mostly in radius of 100 km.

According to Act No. 168/1996 Coll. on road transport as amended by later regulations, the operator can perform scheduled bus transport only on basis of transport license. The license for performance of scheduled bus transport is presently owned by 16 enterprises of Slovak bus transport, Inc. (SBT), Slovak Lines, Inc., BUS KARPATY, Ltd., SKAND Skalica, Ltd., and so far negligible share is owned by small transport companies. The SBT enterprises also perform urban mass transport (UMT) except Bratislava, Banská Bystrica, Košice, Prešov and Žilina cities, where it is performed by relevant city transport enterprises.

Since 2000, the SBT enterprises underwent different forms of transformations up to the privatisation and sale of stocks to private investors. State stocks share in individual SBT enterprises ranges currently from 38% to 41,5%.

Since 1 January 2005, for the coverage of revenues regress by reason of providing the fare discounts and by reason of providing the service of the territory by scheduled bus transport, are the public service obligations in suburban bus transport (up to 100 km) financed from the budgets of self-governing regions.

The self-governing regions are deciding the amount of assigned resources into the scheduled suburban bus transport and are making contracts on public service obligations with operators, whereby the evincible loss is covered from their budgets.

The approach of EU countries and SR as well is leading to that, that the public service obligations would become a normal segment of business. The operator (carrier) and submitter should have a common interest on services offer increase and costs reduction along simultaneous making of the carrier's fair profit. Result of such approach should positively effect the quality of provided transport services and their price in the future.

#### Public railway passenger transport

On the behalf of provision of necessary transport services related to public transport of passengers and goods, there is an contract made every year between the state – MTPT SR and the operator – Železničná spoločnosť Slovensko a.s. (ZSSK) – (Slovak railway transport operator). The contract sets the quantification of scale of the public service obligations for a current year and coverage quantifications of loss caused by their realisation.

ZSSK is currently the only operator in conditions of SR, which provides passenger railway transport focused on provision of suburban, regional and transregional passenger railway transport. In term of proprietary relations, the founder and absolute shareholder of ZSSK is the Slovak Republic, whereby the shareholder's rights are by law executed by MTPT.

#### Development of passenger transport market

In the development of passenger traffic of the SR (number of transported persons) and traffic performance (passenger-km) in the years 2000 to 2004 substantial decreases such as those in the freight transport did not occur. However substantial changes occurred in the division of operations (modal split) to the detriment of public passenger traffic.

In the development of passenger traffic in the period of years 2000 to 2004 decreases are recorded in all modes of public passenger traffic, accompanied by the continuous increase of individual automobile transport that increased approximately by 5% since the year 2000.

				in it		_	iı	n it
Year	Total	Public railway transport	Public road transport	UMT – DP	Non- public road transport	Individual automobile transport	Public passenger traffic	Non-public passenger traffic
			*1	*2	*3		*4	*5
				[in thousan	d passenger	s]		
2000	2 745 019	66 806	604 249	404 539	5 083	1 664 342	1 075 594	1 669 425
2001	2 680 421	63 473	566 445	373 269	4 215	1 673 019	1 003 187	1 677 234
2002	2 705 640	59 430	536 613	370 018	4 019	1 735 560	966 061	1 739 579
2003	2 687 408	51 274	493 706	394 465	5 048	1 742 915	939 445	1 747 963
2004	2 649 402	50 325	461 772	383 118	4 016	1 750 171	895 215	1 754 187
				[	[%]			
2004	100	1.9	17.4	14.5	0.2	66.1	33.8	66.2

Tab. 7: Number of transported persons in the SR in the period of years 2000 to 2004 by selected transport modes

Source: VÚD, a. s.

\*1 – transport of persons by companies having road transport as predominant activity

\*2 - transport of persons only by UMT companies in the cities Bratislava, Košice, Žilina, Prešov

\*3 – transport of persons for own and foreign purposes by companies that are, based on their principal activity, classified to sectors of economy other than the transport sector

\*4 – transport of persons by companies providing transport services in the transport sector (OKEC 60 and 63)

\*5 – transport of persons for own and foreign purposes by companies that are, based on their principal activity, classified to sectors of economy other than the transport sector, including individual automobile transport.

In the period of years 2000 to 2004 a development similar to the development in the number of transported persons occurred in the development of transport performance in passenger traffic (passenger-km), where decreases of public passenger traffic are recorded, with the exception of the revival of UMT, while the trend of the growth of the individual transport continues.

In the period of the last ten years the public passenger traffic is characterised by the gradual decrease of transport performance. For the period of years 2000 to 2004 the performance of public passenger traffic decreased nearly by 9%, whereby in the railway passenger traffic the transport performance in the year 2004 decreased to 77.6% of the performance in the year 2000.

This development in the SR is largely conditioned by the increase of the living standard of population and by the insufficient support of the public transport, which is manifested by the increase of the individual automobile transport that in this period recorded the absolute increase of 5.9% and its share in the year 2004 represented 68.4%, although in the year 2000 the level of individual motoring was at the level of 64.4%. This trend proves that in the last years in Slovakia the efforts at creating favourable conditions for the integration of public passenger traffic, comprising the railway passenger traffic, suburban bus service and urban mass transport, failed.

YearTotalrailway transportroad transportUMT- DP umsportpublic road transportautomobile passenger trafficpassenger passenger trafficYearTotalrailway transportroad transportuMT- DP road transportautomobile road transportpassenger trafficpassenger traffic1*1*2*3*4*51100passenger-kilometres117372823 92912 47824 657					in it			iı	n it
[mil. Of passenger-kilometres]           2000         37 135         2 870         8 435         1 173         728         23 929         12 478         24 657	Year	Total	railway	road	UMT- DP	public road	automobile	passenger	Non-public passenger traffic
2000         37 135         2 870         8 435         1 173         728         23 929         12 478         24 657				*1	*2	*3		*4	*5
		[mil. Of passenger-kilometres]							
2001 36.856 2.805 8.253 1.350 302 24.056 12.408 24.449	2000	37 135	2 870	8 435	1 173	728	23 929	12 478	24 657
2001 30 830 2 803 8 235 1 330 392 24 030 12 408 24 446	2001	36 856	2 805	8 253	1 350	392	24 056	12 408	24 448
2002         37 456         2 682         8 236         1 371         189         24 978         12 289         25 167	2002	37 456	2 682	8 2 3 6	1 371	189	24 978	12 289	25 167
2003         36 951         2 316         7 757         1 384         270         25 224         11 457         25 494	2003	36 951	2 316	7 757	1 384	270	25 224	11 457	25 494
2004         37 013         2 228         7 882         1 330         241         25 332         11 440         25 573	2004	37 013	2 228	7 882	1 330	241	25 332	11 440	25 573

Tab. 8: Traffic performance for passenger transport of the SR in the years 2000 to 2004 by selected transport modes

The started trend of the transfer of transport outputs from public passenger traffic is manifested among others by the increase of the share of the individual automobile transport in the provision of mobility in passenger-km, calculated per inhabitant, where this indicator increased from the year 2000 to the year 2004 by 6.2%, with a significant decrease in the railway of approximately 22%. (The total in the Table 9 is excluding outputs realized by waterborne and air transport).

Tab. 9: Division of operations (modal split) in selected modes for passenger traffic in the SR

			Divisio	n of opera	tions in pass	enger traffic				
				in it			in it			
Year	Total	PublicPublicrailwayroadtransporttransport		UMT	Non- public road transport	Individual automobile transport	Public passenger traffic	Non- public passenger traffic		
			*1	*2	*3		*4	*5		
			]							
2000	6873,6	531,2	1561,3	217,1	134,8	4429,2	2309,7	4564,0		
2001	6851,9	522,3	1534,3	251,0	72,9	4472,2	2306,8	4545,1		
2002	6963,2	498,6	1531,1	254,9	35,1	4643,5	2284,6	4678,6		
2003	6868,1	430,5	1441,8	257,2	50,2	4688,4	2129,5	4738,6		
2004	6 873,6	413,8	1463,7	247,0	44,8	4704,3	2 124,5	4 749,1		

Source: VÚD a. s.

## **3.2.3** Transport performances and intensities of road transport

The basis criterion and indicator of the need of development of the road network is the growing traffic demand in the area of road transport, resulting from the requirements of the whole society for the transport of passengers and goods, expressed by the growth of transport performances or profile intensities.

Although currently the attention is paid particularly to the construction of the superior road infrastructure (motorways and expressways), in the present and in the near future the most important part of the road network in terms of transport performances is and will be the first-

class roads. In fact all international "E" roads (with the exception of those sections where a motorway is in operation) run over first-class roads (1 535 km).

Approximately 51% of performances of the whole road network are realised on first-class roads. In the years 2010 to 2015, the gradual change of proportions of realised transport performances with desired shift on high quality road infrastructure will be affected by the motorways network completion and also by gradual construction of planned expressways network sections.

The comparison of transport performances and transport intensities shows that the continuity, quality and safety of road transport are limited by technical parameters of the road network.

Year	Motorways	First-class roads	Total
1995	2 178	15 667	17 845
2000	3 688	20 051	23 739
2005	6 699	24 224	30 923

Tab. 10: Development of transport performances (in thousand vehicle-km per average day of year)	Tab.	10: Develop	pment of transp	ort performan	ces (in thousa	nd vehicle-km	per average day of ye	ear)
---	------	-------------	-----------------	---------------	----------------	---------------	-----------------------	------

Source: SRA

The national traffic census executed in the year 2005 was implemented in the territory of the SR as a part of the European road traffic census executed in the said year. It was organised by the United Nations Economic Commission for Europe in Geneva. By this census the SR joined the implementation of the Resolution No 254 declared by the UN-ECE Committee on Inland Transport on traffic census and inventory-taking of standards and parameters on main roads with international transport in Europe ("E" roads) in the year 2005. The national traffic census has been executed in the territory of the Slovak Republic since the year 1963, and from the year 1980 regularly every 5 years, using an uniform methodology. The purpose is to verify the development of motor traffic intensity, collect data for the census of traffic on roads belonging to the European network, obtain the range of road traffic intensities on the road network, collect basic information for the coordination of investment plans for transport planning, etc. The graphic representation of road traffic intensities based on the national traffic census in 2005 on motorways, expressways and first-class roads forms Annex 5 to this document.

The development of road traffic intensity in the SR in the period of years 1995 to 2005 shown in the Table 11 indicates that road traffic intensity still has an upward trend, whereby it grows most progressively on motorways, and to a large degree also on first-class roads.

Tab. 11: Development of road traffic intensity in the SR by selected road types (annual average	;
of daily intensities in actual vehicles/day)	

Year	Motorways	First-class roads	Total
1995	10 147	5 070	15 217
2000	12 501	6 227	18 728
2005	22 488	7 567	30 055

Source: SRA

Long-term high traffic loads in rural zone areas on the roads leading on routes of future motorways are in Považie corridor in between Považská Bystrica, Žilina and Ružomberok, as well as on the sections alongside High Tatra and in the surroundings of Prešov (see Annex 6b). The capacity of existing first-class roads in these sections is being markedly exceeded since 2000 and necessarily requires the completion of planned motorways network.

A specific case in term of exceeded capacity is already constructed motorway D1 in section Bratislava – Trnava. This section of motorway was constructed almost 30 years ago and currently it is reaching the limit of its traffic capacity.

Long-term high traffic loads in rural zones are also on roads leading on routes of future expressways (see Annex 6a). On the whole network of prepared expressways, the most loaded expressway is R1 en route Nitra – Selenec – Beladice – Tekovské Nemce; Žarnovica – Šášovské Podhradie.

Non-solving these problems would lead to worsening of the smoothness and safety of road traffic, increase of accident rate and negative environmental and health effects of road transport.

# **3.3** Analysis of transport infrastructure indicators

## 3.3.1 Analysis of railway infrastructure

The existing network of railway tracks in Slovakia is the result of approximately 150-year development of different national, political and economic conditions and for different economic and strategic aims and priorities. The geographic position of Slovakia in the Europe clearly confirms the actual importance of the position of railway tracks of the SR in the European transport infrastructure. Main international railway tracks are directly connected to railway tracks of Slovakia.

The railway transport infrastructure is characterised by a rather high density of the network with obsolete technology, whereby the technical basis of the railway infrastructure is not sufficiently prepared for the changing conditions and structure of the transport market. This situation is caused particularly by the low technical level and quality of the technical basis of the railway transport and by its neglected maintenance and insufficient reconstruction.

The frame of the railway infrastructure network of the SR consists of a so-called "triangle", the arms of which are formed by the following tracks: Košice – Žilina, Žilina – Bratislava and Bratislava – Zvolen – Košice. The other tracks are supplementing or connecting basic corridors, local and regional tracks (see Annex 2).

As per 31.12.2004, approximately 3 660 km of railway tracks were in operation, of which 3 510 km of railway tracks with standard gauge, 50 km of narrow-gauge tracks and 100 km of widegauge tracks, whereby 2 640 km were single tracks and 1 020 km were double track lines. In the year 2004, from the railway tracks mentioned above were electrified 1 566 km, which represents 42.5% of the total length of railway tracks.

Context		JTS				V	alue c	of indica	tor			
indicator	region		2000		20	2001		2002		2003		004
	2	3	3	2	3	2	3	2	3	2	3	2
Length of	BA	BA	233	233	233	233	233	233	233	233	233	233
railway network		TT	347		347		347		347		347	
-	ZS	TN	327	1 242	327	1 242	327	1 242	327	1 242	327	1 242
Measuring unit:		NR	568		568		586		568		568	
Km	SS	ZA	379	1 080	379	1 080	379	1 080	379	1 080	379	1 080
	66	BB	701	1 000	701	1 080	701	1 000	701	1 000	701	1 080
	VS	РО	424	1 1 1 0	424	1 1 1 0	424	1 102	424	1 102	424	1 102
	40	KE	686	1 1 1 0	686	1 1 1 0	678	1 102	678	1 102	678	1 102
	S	R	3	665	3	665	3	657	3	657	3	657

Tab. 12: Length of the railway network of the SR in the period of years 2000 to 2004

Source: VÚD, a. s.

From the view of the international importance the development of the railway infrastructure of the SR results from the obligation of a EU (TEN-T) Member State and other international agreements such as the Agreements AGC (Accord europeen sur les grandes lignes internationales de Chemin de fer) and AGTC (Accord europeen sur les grandes lignes de transport international Combine et les installations connexes), whereby the European railway network in Slovakia comprises: 863.9 km of railway tracks according to the Agreement AGC, 1033 km of railway tracks according to the AGTC and 916.4 km of railway tracks included in the network of Trans European multimodal corridors.

International transport corridors system according to the Agreements AGC and AGTC on the network of ŽSR (Railways of the SR) includes:

- C 30/1 Muszyna state border Poland/SR Plaveč Prešov Kysak Košice Čaňa state border SR/Hungary Hidasnémeti.
- **C E 40** Ostrava state border CR/SR Čadca Žilina Poprad Tatry Košice Čierna nad Tisou state border SR/Ukraine Čop,
  - Horní Lideč state border SR/CR Lúky pod Makytou Púchov Žilina,
- **C E 52** state border Austria/SR Devínska Nová Ves Bratislava Nové Zámky Štúrovo state border SR/Hungary,
- **C E 61** Prague state border CR/SR Kúty Bratislava N. Zámky Komárno state border SR/Hungary Komárom,
  - Bratislava Rusovce state border SR/Hungary,
- **C E 63** Czechowice state border Poland/ SR Skalité Žilina Leopoldov Bratislava state border SR/Austria,
  - Leopoldov Galanta.

Review about integration of ZSR network to the international corridors as well as mutual correlation among TEN-T net, Pan European Corridors and corridors defined by EHK OSN (AGC, AGTC, TER) provides the Annex 2. The Priority for SR is mainly to perform obligations in the connection to TEN-T net development and to defined priority projects of Community.

The former uneven investment of funds in the modernisation and development of the railway and road infrastructure causes a significant underdevelopment of railway tracks in the European corridors in comparison with the neighbouring EU Member States. A positive factor of the railway infrastructure in the SR is the high density of the network, which together with the high density of stations and stops (although the layout of stations does not fully meets the requirements) ensures the good accessibility of both the passenger and goods transport. In most cases the existing capacity of the lines is also sufficient.

Present bad condition of railway infrastructure is characterised from the technical view by parameters as: limited track speed (max. speed limit 140 km/h); inconvenient condition of railway superstructure and subtraction of the track, which modify the axial thrust; inconvenient altitudinal and longitudinal leading of the tracks; small axial distance between double tracks; technically obsolete safety installations and technically obsolete condition of railway superstructure in stations (rail switches).

The table below shows that although the region of Bratislava has the lowest value of the length of railway tracks from all regions at the level NUTS 2, it disposes of the largest density of the

railway network. The region of Central Slovakia with 66.4 km/thousand km<sup>2</sup> has the lowest density of the railway network which is caused particularly by the broken topography.

Context	NU	JTS				V	alue of i	indicat	or			
indicator	region		2000		200	2001		2002		2003		)4
	2	3	3	2	3	2	3	2	3	2	3	2
Density of	BA	BA	113,5	113	113,5	113	113,5	114	113,5	114	113,5	114
railway		TT	83,66		83,66		83,68		83,68		83,68	
network	ZS	TN	72,63	82,8	72,63	82,8	72,63	82,8	72,63	82,8	72,63	82,8
. ·		NR	89,55		89,55		89,53		89,53		89,53	
Measuring unit:	SS	ZA	55,83	66,5	55,83	66,5	55,73	66,4	55,73	66,4	55,73	66,4
Km/thousand	33	BB	74,14	00,5	74,14	00,5	74,14	00,4	74,14	00,4	74,14	00,4
km <sup>2</sup>	VS	РО	47,15	70,5	47,15	70,5	47,21	70	47,21	70	47,21	70
	vs	KE	101,6	70,5	101,6	70,5	100,4	70	100,4	70	100,4	70
	S	SR	74,6	583	74,6	683	74,5	581	74,5	81	74,5	581

Tab. 13: Density of the railway network of the SR in the period of years 2000 to 2004

Source: VÚD, a. s.

The Figure 4 shows that in the comparison of the density of the railway infrastructure network the Slovak Republic lags behind Hungary and the Czech Republic only, whereby it significantly exceeds the average of the EU 15. Although the Czech Republic has much higher density of the railway infrastructure network than the SR, its share from the view of electrified sections is only a little more than 30%.

Fig. 4: Density of the railway network in the year 2003 (km/thousand km<sup>2</sup>) – International comparison



Source: Eurostat

## 3.3.2 Analysis of road infrastructure

The road infrastructure has a large importance for the economic growth, the mobility of labour force as well as the competitiveness in the framework of the international distribution of transport work. It is one of the key factors that significantly influence the economic development and the territorial organisation of the State.

The actual condition of the road infrastructure is characterised by a quite dense road network, but with a rather low share of roads belonging to higher classes (motorways and expressways), where the existing road capacity is often exceeded, particularly on the main international roads.

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 with total length of 1 181 km.

#### International road network "E" and "TEM"

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 (see Annex 3).

Eleven Slovak roads: E50, E58, E65, E71, E75, E77, E371, E442, E571, E572, E575 with total length of 1 535 km are included in the network of European ("E") roads, in accordance with the European Agreement on Main International Roads. The total length of "E" roads represents 47 % of total length of first-class roads and 8.8 % of total length of the road network.

The network of Trans European roads "TEM" includes 60.7% of international "E"-class roads, which represents 932 km of roads. The roads E50, E58, E65, E71, E75 and E77 in the section of the state border SR/MR – Ružomberok are included in the TEM network. The most important connection from the TEM network, that passes through the Slovak territory, is the north-south road on the route E75 Gdansk – Katowice – Žilina – Bratislava with branches to Vienna and Budapest.

#### Trans European transport (road) corridor - "TEN-T"

In generally Trans European transport corridors TEN-T include road, railway, air and water transport corridors and they are planned and designed the way, that covered the whole Europe with a view to connect national networks, to connect marginal regions with centre, to improve quality and efficiency of networks. TEN-T network comes from the Pan European corridors.

The SR area is passed over by three European transport corridors TEN-T and namely corridor no. IV, V and VI, which are consist of highway D2, D1 and D3 within Slovak road network. Additionally TEN-T network is created besides the highways also by corridors copying expressways R3 and R4 (see Annex 3).

Corridor	Route on the SR area	Planned length (km)	Into service to 1.3.2007 (km)
IV (D2)	State border CR/SR, Kúty – Malacky – Bratislava – state border SR/Hungary, Rusovce	80	76,7
V (D1)	Bratislava – Trnava – Žilina – Košice – state border SR/Ukraine, Vyšné Nemecké	517	259 (21 in ½ profile)
VI (D3)	State border Poland/SR, Skalité – Čadca – Žilina	59	10,3 (10,3 in ½ profile)

Tab. 14: Highways integration to TEN-T

Corridor	Route on the SR area	Planned length (km)	Into service to 1.3.2007 (km)
R3	Martin – Žiar n. Hronom – Zvolen – Levice – state border SR/Hungary, Šahy	152,99	0
R4	State border Poland/SR, Vyšný Komárnik – Prešov	73,22	0
R4	Košice – state border SR/Hungary, Milhosť	22,64	0

Tab. 15: Expressways integration to TEN-T

On the basis of the aforesaid it is necessary to envisage the priority construction of the network of motorways on the routes of the carrying TEN-T network, expressways supplementing the motorway network, as well as the modernisation of first-class roads important from both the international and national view.

Tab. 16: Length of motorways and feeder roads of the SR in the period of years 2000 to 2004 at the levels NUTS 1 to NUTS 3

Context		JTS				V	alue of	indicat	or			
indicator	region		2000		2001		2002		2003		2004	
	2	3	3	2	3	2	3	2	3	2	3	2
Length of	BA	BA	94,8	94,8	97,8	97,8	103,1	103,1	102,5	102,5	103,1	103,1
motorways and		TT	67,4		67,4		67,4		67,4		67,4	
feeder roads	ZS	TN	63,7	131,1	63,7	131,1	66,1	133,5	66,1	133,5	69,5	136,9
N · ·		NR	0,0		0,0		0,0		0,0		0,0	
Measuring unit Km	SS	ZA	45,8	45,8	45,8	45,8	45,8	45,8	45,8	45,8	46,6	46,6
ixiii	20	BB	0,0	45,8	0,0	45,8	0,0	45,8	0,0	45,0	0,0	40,0
	VS	РО	18,8	24,1	18,8	24,1	18,8	24,1	30,5	35,8	30,5	35,8
	C V	KE	5,3	24,1	5,3	24,1	5,3	24,1	5,3	55,8	5,3	55,8
	S	R	29	5,7	29	8,7	30	6,5	31	7,7	32	2,4

Source: VÚD, a. s. and SRA

As per 31.12.2004, 316.2 km of motorways and 6.2 km of feeder roads were in operation, which represents less than 2% of the road network with length of 17 786 km. However, from total transport outputs on the entire road network, the current share of transport performances on motorways represents approximately 11%, whereby it is expected that following its completion it will account for 20%. From the total length of nearly 690 km of motorways it is necessary to complete approximately 55%, which represents about 374 km.

Context		JTS Value of indicator											
indicator	region		2000		2001		2002		2003		200	04	
	2	3	3	2	3	2	3	2	3	2	3	2	
Length of	BA	BA	-	-	-	-	-	-	-	-	0	0	
expressways		TT	-		-		-		-		22,9		
	ZS	TN	-	-	-	-	-	-	-	-	6,6	48,3	
Measuring		NR	-		-		-		-		18,8		
unit: km	SS	ZA	-		-		-		-		0	29,6	
	55	BB	-	-	-	-	-	-	-	-	29,6	29,0	
	VS	РО	-		-		-		-		0	0	
	v 5	KE	-	-	-	-	-	-	-	_	0	0	
	S	SR		-		-		-		-	77	,9	

Tab. 17: Length of expressways of the SR in the period of years 2000 to 2004 at the levels NUTS 1 to NUTS 3

Source: VÚD, a. s. and SRA

As for expressways, 78 km were in operation as per 31.12.2004, which represents nearly 7% of the total planned length 1 181 km of expressways. The following sections are referred to: section of the road R1 Budča – Banská Bystrica with the length of 16.6 km, section of the road R1 from D1 (Trnava) – Nitra with the length of 41.8 km, section of the road R1 Hronský Beňadik – Rudno nad Hronom with the length of 12.9 km and section of the road R6 Púchov – intersection of roads R6 and D1, I/61 of the section of road R6, that is constructed in the half profile. All these road sections were constructed or prepared before the Resolution of the Government No 162/2001 to the new project of the construction of motorways and expressways as first-class roads, not as expressways as currently understood. In the year 2004 the statistical observation and evaluation of the length of expressway networks for the entire road network of the SR were changed and some sections of first-class roads were reclassified to expressways. For this reason, following the year 2003 the decrease of the total length of first-class roads can be observed.

Tab. 18: Length of first-class roads of the SR in the period of years 2000 to 2004 at the levels NUTS 1 to NUTS 3

Context		JTS				V	alue of	indicato	r			
indicator	region		2000		2001		2002		2003		2004	
	2	3	3	2	3	2	3	2	3	2	3	2
Length of	BA	BA	138,1	138,1	136,8	136,8	130,9	130,9	130,9	130,9	130,8	130,8
first-class		ΤT	279,3		279,3		279,3		290,8		268,3	
roads	ZS	TN	300,8	1094,4	300,8	1094,4	305,7	1099,4	307,4	1112,7	301,5	1065,5
. ·		NR	514,2		514,2		514,5		514,5		495,7	
Measuring unit: km	SS	ZA	469,8	1047.1	469,8	1047.1	472,7	1 046,9	500,7	1099,0	508,1	1076.9
unit. Kin	22	BB	577,3	1047,1	577,3	1047,1	574,2	1 040,9	598,2	1099,0	568,7	1076,8
	VS	РО	573,9	942,2	573,9	942,2	573,9	047.1	625,4	992,0	623,5	990,2
	v 5	KE	368,3	942,2	368,3	942,2	373,2	947,1	366,7	992,0	366,7	990,2
	S	R	3 2	21,7	3 2	20,4	3 2	224,3	33	34,7	3 2	63,3

Source: VÚD, a. s. and SRA

Beside of motorways and expressways, first-class roads play an important role in the international and national road transport. The scope of the network of these roads is 3 263.3 km, which represents approximately 18.34 % of the entire road network.

Context		TS		Value of indicator								
indicator	reg	ion	2	000	2	001	2	002	2	003	20	004
	2	3	3	2	3	2	3	2	3	2	3	2
Density of	BA	BA	389,5	389,51	387,9	387,94	388,3	388,34	388,1	388,08	388	388
road network		TT	469		469		469,7		469,7		470	
Measuring	ZS	TN	412,4	423,84	412,5	423,84	413,3	424,47	413,7	424,58	414	424,77
unit:		NR	402,4		402,4		402,8		402,9		403	
km/thousand	SS	ZA	289,6	315,57	290	315,69	290,1	315,62	290,2	316,36	292	316,88
km <sup>2</sup>	22	BB	334,2	515,57	334,1	515,09	334	515,02	335,2	510,50	335	510,00
	VS	РО	342,4	346,59	342,5	346,6	343	347,25	344,5	347,82	344	347,64
	v S	KE	352,1	540,59	352,1	540,0	352,9	547,25	352,2	547,62	352	547,04
	S	R	36	61,74	36	51,76	36	52,10	36	2,55	3	63

Tab. 19: Density of the road infrastructure network of the SR in the period of years 2000–2004 at the levels NUTS 1-NUTS 3

Source: VÚD, a. s. and SRA

In terms of the density of road infrastructure the Slovak Republic belongs to the average within the EU countries. As far as the density of motorways is concerned, SR ranks within the EU among countries with the lowest density. In 2003 the density of motorways in the SR represented 6.4 km/thousand km<sup>2</sup>, which is caused particularly by the incompletion of the superior road network (of motorways and expressways).

Fig. 5: Density of the motorway network in the year 2003 (km/thousand km<sup>2</sup>) – International comparison



Source: Eurostat

#### Accessibility of the Slovak territory from motorways and expressways

The accessibility of the territory from the network of motorways and expressways is defined as accessibility of the individual communities to the closest intersection on a highway or expressway. In this way the access of inhabitants and territory to the superior transport network and international transport corridors is ensured. Based on the graphic representation of the accessibility of the individual Slovak regions (see Annex 4) it can be stated that in the year 2005 approximately one third of the Slovak territory (about 18% of the population) reached a highway or an expressway within a period longer than 45 minutes. On the contrary, nearly 46% of the population reaches a motorway or an expressway within 15 minutes, which proves that the location of the superior road infrastructure and its overlapping with main urban areas of Slovakia are justified.

Tab. 20: Number of inhabitants in relation to the accessibility from motorways and ex	pressways
in the year 2005	

Accessibility	Number of inhabitants				
Accessionity	Number	%			
within 15 min	2 473 752	45,98			
15 – 30 min	1 173 751	21,82			
30 – 45 min	760 592	14,14			
above 45 min	971 360	18,06			
Total	5 379 455	100,00			

Source: SRA

#### **Technical condition of roads**

The basic condition of the operability of the road network is the execution of regular maintenance and repairs of the roads. The evaluation of the transport, technical and building condition of first-class roads, that results from main inspections and diagnostic of roads executed in the year 2004, shows that approximately 782 km of first-class roads are in a bad condition, which represents more than 22% of total administered length of roads, of which 101 km of first-class roads, i.e. nearly 3%, are in the state of disrepair. From the view of building condition these roads are degraded on the ground of the low pavement strength or disintegration of the surface and the structure. Their putting into operable condition requires the full reconstruction of the road. This situation is clearly caused by the delay in the cyclic reconstruction of roads. The measurement of pavement strength on first-class roads showed that 8 to 10% of first-class roads requires the reinforcement.

The main task of maintenance staff is to conserve the parameters laid down by the design and by the removal of failures to return to the roads their original functional properties. The underfinancing of maintenance for a long period means a lower standard of the maintenance of roads and their accessories at the level of 60%.

The high deficit in the maintenance of roads is closely related to the underfinancing of repairs of first-class roads in the previous period. This situation is caused by the clear delay in the cyclic reconstruction of roads. The level of financing of road repairs is insufficient from the view of further development of their condition. The basis for the planning of repairs is the pavement diagnostic in the road management system. When the individual road sections are included in the plan of repairs, the priority is given to sections with cross deformations, for the reasons of road safety.

For the purpose of getting information about the overall condition of the road network, in the year 2004 the measurements of longitudinal and transverse unevenness of pavement were executed, within the scope of 614.2 km of measured traffic lanes on motorways and 3 506.5 km of first-class roads.

From the view of pavements of motorways, nearly 3% of them are in unsatisfactory condition, where the pavement no more fulfils conditions for safe, continuous, fast and economic utilisation of motor vehicles and the pavement has to be repaired. From the view of pavements of first-class roads, more than 22% of them are in unsatisfactory condition and nearly 3% in the state of disrepair (more than 100 km). The state of disrepair requires the immediate designation of the pavement by traffic signs (warning and regulatory signs) and subsequent repair. The summary overview of the condition of pavements of motorways and first-class roads in the year 2004 from the view of transverse unevenness (beaten tracks) and longitudinal tracks is presented in the following tables:

Tab. 21: Technical condition of the pavement of motorways in the SR in the year 2004

Unit/Condition	Excellent	Good	Satisfactory	Unsatisfactory	State of disrepair
Km	297,5	234,9	64,3	16,5	1,0
%	48,4	38,3	10,5	2,7	0,2
					r

Source: SRA

Tab. 22: Technical condition of the pavement of first-class roads in the year 2004

Unit/Condition	Excellent	Good	Satisfactory	Unsatisfactory	State of disrepair
Km	350,5	1 099,1	1 173,8	782,3	101,0
%	10,0	31,3	33,5	22,3	2,9

Source: SRA

## 3.3.3 Analysis of intermodal transport infrastructure

One of basic conditions of the effective exchange of goods is the establishment of transport junctions in which goods are concentrated and redistributed for the purpose of their more effective transport between manufacturers, traders and consumers within a logistic transport chain. These junctions (logistic centres) according to the EU transport policy constitute basic points of the intermodal transport network and the communication frame of goods and information flows in Europe.

The increase of international goods transport by heavy goods vehicles, together with the uncompleted network of superior transport infrastructure, shows in the SR by the enormous load of roads in densely populated areas, in natural preserves as well as in the area of border crossings.

The combined transport system, so-called container transport system based on the transport o goods in large 20 feet (6 m long) ISO containers, was based on container terminals also in the SR. The said system was built in the fifties of the past century and functioned successfully among the COMECON countries thanks to the directive management. Following the change of the political and economic system in the year 1989, the dilapidation of the COMECON market and subsequent privatisation the system has crumbled. In the SR, unlike the EU countries, the trend of the development of intermodal transport was not caught, due to which the existing container transport system has become obsolete from the technical, technological, commercial

and organisation views and, with the exception of a limited number of private terminals, it is currently not suitable for freight forwarders. The table 23 shows the development of the number of terminals in the SR in the period under review (2000 - 2004).

Tab. 23: Number of combined tr	ransport terminals	and container	terminals	of the	SR in the
period of years $2000 - 20$	004				

Context	Context NUTS region				Value of indicator								
indicator	110101	0,51011	2	000	20	001	20	002	20	)03	20	004	
	2	3	3	2	3	2	3	2	3	2	3	2	
Number of	BA	BA	2	2	2	2	2	2	2	2	2	2	
intermodal		TT	1		1		1		1		2		
transport terminals and	ZS	TN	0	2	0	2	0	1	0	1	0	2	
		NR	1		1		0		0		0		
container terminals	SS	ZA	1	1	1	1	1	1	1	1	1	1	
terminals	55	BB	0	1	0	1	0	1	0	1	0	1	
Measuring unit:	VS	РО	0	3	0	3	0	3	0	3	0	2	
number of units	v 5	KE	3	5	3	3	3	3	3	3	2	2	
	SR	-		8		8		7		7		7	

Source: VÚD, a. s.

As per 31.12.2004 7 container terminals were registered in the territory of the SR that are, with the exception of the terminal in Dobrá, technically and technologically obsolete, do not meet the basic parameters laid down by the AGTC. The terminals are privately owned and located in built-up urban areas which does not allow their further spatial development (expansion). Therefore they don't allow to provide services required by the existing transport market, nor they can develop effectively and guarantee the provision of services based on a non-discriminatory principle required by the EU Treaty and derived legal regulations.

Tab. 24: Performances in container terminals of the SR in the period of years 2004 and 2005

Container terminal	Number of loaded and unloaded intermodal loading units			
	2004	2005		
Bratislava ÚNS	917	1 250		
Košice	253	303		
Žilina	925	910		
Dobrá	-	2 000		
Bratislava – port	-	5 500		
Dunajská Streda	64 310	92 022		
Sládkovičovo	6 143	8 872		
Total	72 548	109 957		

In comparison with the member countries of the initial EU 15 the SR has not modern public intermodal transport terminals with provision of services based on a non-discriminatory principle in the close relation to the logistics, which is a prerequisite of the participation of the SR in the open transport market within Europe and in the world.

## 3.3.4 Analysis of public railway passenger transport

Public railway passenger transport in Slovakia has more than 150 year history and in the past it was a basal system, which provided mobility. In the late 20<sup>th</sup> century, a fast reversion in passenger transport orientation occurred in Slovakia as well, where along the growth of bus

transport the share of individual motorism grows dynamically. These tendencies approve that the technical level of public railway passenger transport significantly lags behind.

The technical basis of the only operator, which provides public railway passenger suburban, regional and interregional transport in Slovakia - Železničná spoločnosť Slovensko, a. s. ("ZSSK") lags behind the existing needs and international trends, that put the stress on the economy, quality and reduction of negative environmental impacts (consumption of energy, air pollution, noise, vibrations, etc.). Mentioned condition has largely negative effect on the quality of services provision by public railway suburban, regional and interregional transport, what consequently causes the shift of travelling public to other transport systems, especially – public bus transport and individual motorism, which have dealt better with requirements of travelling public on the services quality (in a broad sense).

This trend is influenced also by other factors, whether technical, organisational, or commercial character, which in the long-term significantly influence the decision-making of passengers to use, or not to use the public railway transport, mainly for transportation to work, schools, medical care, authorities etc. As the biggest barriers of public railway passenger transport utilisation following are mentioned - e.g. necessity of multiple transfers, low knotting on supplementary transport system in transfer points and missing co-ordination and integration, punctuality and keeping of the train timetable, complicated handling of passengers, cleanness etc..

Actual experiences from the responses of travelling public on the railway passenger transport show that the barrier to its utilisation in suburban, regional and interregional transport is often the technically obsolete vehicles fleet, which in comparison with public bus transport lags behind markedly in last years.

From the view of age structure of railway mobile means, 302 driving vehicles older than 20 years were registered in the year 2005, which represents the share of nearly 64%. Most represented are driving vehicles within the interval from 21 to 30 years, that represent nearly 30%. A similar situation exists in the area of railway wagons, that within the interval from 16 to 35 years account for nearly 71% of the railway rolling stock of the ZSSK (see the table 25, Figures 6 to 8).

Years	Driving vehicles *	Wagons	Compact units
up to 5 years	50	102	14
6 – 10 years	29	41	0
11 – 15 years	56	230	0
16 – 20 years	37	304	0
21 – 25 years	104	274	0
26 – 30 years	80	237	16
31 – 35 years	52	231	11
36 – 40 years	53	48	4
above 40 years	13	7	0
Total	474	1474	45

Tab. 25: Age structure of railway mobile means in the year 2005

\* The indicated number of driving railway vehicles is excluding inserted and towed cars



Fig. 6: Age structure of railway mobile means in the year 2005 – driving vehicles

Fig. 7: Age structure of railway mobile means in the year 2005 – wagons



Fig. 8: Age structure of railway mobile means in the year 2005 – compact units



From the evaluation of the territorial division of mobile means by the individual Slovak regions at the level NUTS 2 it is clear that mobile means ensuring the regional and interregional transport in the SR show certain regional unbalance. In home depots in Bratislava and in West

Slovakia driving railway vehicles and towed and inserted cars account for 30% and 70% are allocated in home depots in Central and East Slovakia.

Wagons are divided more evenly; 39% of them are allocated in home depots in Bratislava and West Slovakia and 61% are allocated in home terminals of Central and East Slovakia.

Tab. 26: Driving railway vehicles, towed, inserted cars and wagons in the year 2005 according to NUTS 2

NUTS 2	Driving railway vehicles and towed and inserted cars	Wagons
BA	89	367
ZS	137	132
SS	244	365
VS	296	411
Total	766	1 275

Fig. 9: Territorial division of mobile means by individual regions of the SR at the level NUTS 2 – driving railway vehicles and towed and inserted cars



Fig. 10: Territorial division of mobile means by individual regions of the SR at the level NUTS 2-wagons



NUTS 2	Number of tariff points	Number of tariff points meeting the ITS criteria
BA	43	35
ZS	296	64
SS	304	64
VS	293	62
Total	936	225

Tab. 27: Number of tariff points on the railway network of the SR in 2005 according to NUTS 2

The insufficient conditions for the development of public railway passenger urban, suburban, regional and interregional railway passenger transport are also presented by the unpreparedness of the railway infrastructure for the support of the integration of transport, where less than 24) of tariff points (railway stations) meet the criteria of integrated transport systems. When we evaluate the regional reach, in the region of Bratislava the preparedness of tariff points is 81%, while in the other Slovak regions it fluctuates only about the level of 21%.

The development of public railway passenger transport is hindered besides the obsolete technical basis also by the negatives in area of services offer (in scope of range and quality), of inflexible and obsolete systems of passengers handling, allocation of passengers services points, which also don't enable the necessary integration of public railway passenger urban, suburban and regional transport into the integrated transport systems in bigger agglomeration areas (e.g. Bratislava, Košice, Žilina, Banská Bystrica).

To increase the share of public passenger railway transport in urban, suburban and regional transport it is needed to implement the integration of transport systems and gradual renewal of mobile means of railway transport. The greatest potential in this line have mainly big agglomerations, especially in areas of Bratislava, Trnava, Žilina, Košice and Prešov. Their localisation at the major transport corridors with developed infrastructure and residential-urbanisation layout with the need to satisfy the greatest transport streams, represent the initial presumption for the development of public railway passenger transport, which provides daily transport from the habitations to the work, to school, or because of personal purposes (medical care, authorities, culture), from the gravity field of large cities. The biggest increase of transported persons number is awaited in the suburban railway transport.

## **3.4** Environmental impacts of transport

The transportation is a sector with significant environmental impacts. Basic assessed factors of transportation that negatively affect the environment are particularly the air pollution by the production of emissions and pollutants by combustion engines, occupancy of soil, waste production, contamination of soil and waters, noise and vibrations from traffic, as well as the road accidents.

#### **3.4.1** Transport infrastructure and environment

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 the SR No 24/2006 Coll. On environmental impact assessment and on amendments to certain Acts.

The improvement of the quality of road and railway infrastructure, represented by the development of the motorway and expressway networks, the modernisation of railway tracks, the construction of by-pass roads and elevated crossings, etc. also contributes to the reduction of negative environmental impacts of the transport.

#### **3.4.2** Negative impacts of transport from traffic operations

The air pollution represents one of the most serious environmental risks, particularly because it occurs especially in urban, densely populated areas. The most important substances causing air pollution are oxides of sulphur and nitrogen, carbon monoxide, solid pollutants and heavy metals.

Total emissions of the greenhouse gas of carbon dioxide  $CO_2$  from traffic have the upward trend. The environmentally-hostile individual passenger transport (43.71%) and road freight transport (42.33%) contribute to their generation to a large degree. The other transport modes (railway, waterborne, air and road public traffic, including UMT) have a low share on the total volume of pollutants – together approximately 14%.

The negative impact of the fast growing environmentally-hostile road transport, particularly the most unfavourable individual automobile transport, is positively attenuated by a more intensive application of a new generation of environmentally friendly and energy-saving vehicles, as well as by the gradual application of new technologies in the fleet of road motor vehicles (adaptation to LPG drive) and in the fleet of buses and freight vehicles (conversion to CNG drive).

Beside of the decrease of fuel consumption, the ongoing completion of the fleet by new generation vehicles has contributed to the decrease of CO and VOC emissions, as well as to the slower increase of  $NO_x$  and other pollutants in the year 2004.
Year	ar $CO$ $CO_2$ $NO_x$ $VOC$ $SO_2$		$O_x$ VOC SO <sub>2</sub>		CH <sub>4</sub>	TF	ΡM	
i cai	0	$CO_2$	NO <sub>x</sub>	voc	$\mathbf{SO}_2$	$C\Pi_4$	PM <sub>10</sub>	PM <sub>2,5</sub>
2000	121,9	4 319,3	38,3	26,1	0,9	1,1	3,0	2,7
2001	133,6	4 896,0	40,6	27,9	0,9	1,3	3,3	2,9
2002	121,3	5 035,7	40,9	25,0	0,8	1,2	3,4	3,0
2003	117,5	5 143,0	39,1	27,2	0,8	1,2	3,3	2.9
2004	113,1	5 440,3	40,9	26,0	0,1	1,3	3,5	3,2

Tab. 28: Overview of the production of total emissions of selected pollutants f	from the traffic
operations (thousand tones)	

Source: VÚD, a. s.; Ministry of Environment of the SR

Tab. 29: Share of the individual transport modes on emissions of carbon dioxide CO<sub>2</sub> (thousand tones)

Indivi	dual transport modes	2000	2001	2002	2003	2004
Road transport		4 019	4 592	4 738	4 869	5 156
	Individual automobile transport	2 172	2 549	2 394	2 472	2 378
	Public road passenger traffic		148	181	181	236
in it	Road haulage	1 466	1 638	1 912	1 973	2 303
	UMT – buses	236	243	239	231	227
	Motorcycles	11	14	12	12	12
Railway transport		156	154	143	114	109
Waterborne transport		114	119	123	123	137
Air transport		32	27	32	37	39
Total	transport	4 320	4 893	5 036	5 143	5 440

Source: VÚD, a. s.

The road transport, especially the individual automobile transport, decides on the scope of production of pollutant emissions from traffic operations in the SR. The table 30 shows that total share of production of  $CO_2$  emissions in the railway, waterborne and air transport is negligible in comparison with road transport.

The quantity of pollutant emissions in road transport is in direct relation to the fuel consumption in the road transport during the realization of driving performances, to the operated fleet (its scope, structure, age, technical condition), but also to the condition of roads from which driving properties, speed and consumption of fuels are reflected, as well as to many other factors.

Other transport factors negatively affecting the environment are noise and vibrations from traffic operations. The environment noise is an accompanying phenomenon of many human activities and is produced particularly by industrial operations, energy and mining industries, and last but not least by the transport. From the regional view the transport is the most important source of noise. The highest share on noise has the road transport (76%), followed by railway transport (14%) and air transport (10%).

	Solids		$SO_2$		No <sub>x</sub>		CO	
	[t/year]	%	[t/year]	%	[t/year]	%	[t/year]	%
Emissions from mobile resources	9 823	19	890	0,9	40 949	42	113 111	37

Tab. 30: Total annual emissions of selected pollutants from transport and operation of other mobile resources and their percentage share on total emissions for the year 2004

Source: SHMI

The table 30 shows the summary of selected data from SHMI (Slovak Hydrometeorologic Institute). From the summary of SHMI it is clear that the share of emissions from mobile resources on total emissions is significant in case of nitrogen oxide (42 %) and carbon monoxide (37 %) emissions.

## 3.4.3 Road safety and accident rate

Beside of undisputed positive influences of the road transport, the development of automobilism is accompanied by many negative phenomena, the most serious from which are traffic accidents, and particularly their consequences. The issues of accident rate in road traffic and consequences of traffic accidents are a serious social problem affecting all spheres of the human activity.

On 1 December 2004 the Government of the SR by its Resolution No 1162 approved the constitution of the Road Safety Council of the Government of the SR. The measures in the area of road safety and accident rate are implemented in accordance with the National Road Safety Plan for the Second Half-Year 2005, with Outlook until the Year 2010, adopted by the Resolution of the Government of the SR No 391/2005 as a basic document on the improvement of road safety in the SR.

The black spots on the road network indicate the increased accumulation of traffic accidents and dangerous traffic situation on the road network. For the improvement of road safety it is necessary to perfectly harmonise technical parameters of roads with the traffic process as a basic condition of the prevention of road accidents. From this view the improvement of road network safety with a special regard to the black spots has an extraordinary importance.

Based on the analysis of accident rate in the year 2004 on first and second-class roads there were 18 recurrent black spots, i.e. locations where an increased number of road accidents ("RA") reoccurs for at least 5 successive years. This number represents 13% of the total number of black spots. In most cases they are represented by roads that are also a part of international routes. In the last years their number doubled which proves that insufficient attention is paid to their removal. For these reasons the solution of recurrent black spots should be given a high priority in the preparation of the annual plan of repairs and reconstruction of the road network.

During the implementation of the measures relating to the reduction of the accident rate it is necessary to concentrate to first-class roads that have the highest share on the accident rate (51%), whereby the share of persons killed on first-class roads amounts up to 52.4%.

From the overview of total number of road accidents per km of road for the year 2003 on the Trans European road network in the SR it can be stated that the highest accident rate is on the road I/61 in the section Visolaje – Považská Bystrica – Predmier (16.04 RA/km/year). Other black spots are on the road I/18 in the section Bytča – Žilina – Martin (11.50 – 12.78 RA/km/year), in the section Mengusovce – Poprad – Spišský Štvrtok (12.08 RA/km/year), and on the road I/68 in the section from the intersection of roads I/18 and I/68 (area of Prešov) to the intersection of the roads I/68 and III/06810 (10.07 RA/km/year). The high accident rate also exists in other sections of the road I/18, where the motorway is not completed. (see Annex 6 – accident rate, black spots).

As for corridors in the lines of planned expressways, the highest accident rate is on the road I/65 in the section Nitra – Hronský Beňadik – Žiar nad Hronom (corridor R1) 4.02 – 9.19 RA/km/year, further in the section Žarnovica – Šášovské Podhradie (7.83 – 9.02 RA/km/year), the road I/50 in the section Prievidza – Žiar nad Hronom – Zvolen – Kriváň (corridor R2) 5.5 – 8.93 RA/km/year, as well as on the roads I/59, I/70 and I/65 in the section Trstená – Dolný Kubín – Kraľovany – Martin – Príbovce (corridor R3) 4.99 – 12.58 RA/km/year.

For the other planned sections of expressways the accident rate lower than 5 accidents per km of road per year is reported. The lowest accident rate in the corridors of planned expressways is reported on the road I/68 in the section Košice – Milhosť, i. e. in the south section of the planned expressway R4 - 2,75 RA/km/year and on the road I/63 in the section Šamorín – Dunajská Streda (planned expressway R7).

From the data mentioned above it is possible to draw conclusions on the procedure and priorities in connection with the completion of the superior transport infrastructure, where an accelerated completion of the integrated network of motorways and expressways is one of main priorities, also from the view of the improvement of road safety.

For the purpose of the improvement of road safety and the subsequent fulfilment of the commitment of the SR to decrease the number of persons killed in road accidents (RA) 50% (National Road Safety Plan for the Second Half-Year 2005, with Outlook until the Year 2010), all new roads and their technical and technological solution will be assessed at the stage of project preparation, also from the view of the fulfilment of modern parameters and road safety requirements.

The number of road accidents depends among others from the capacity and the quality of the road infrastructure, whereby a superior network of road transport infrastructure significantly contributes to the decrease of the number of road accidents. Another factor contributing to the decrease of the number of fatal accidents is the automotive industry, through the development and introduction of new technologies increasing the vehicle safety.



Fig. 11: The number of black spots (BS) and the number of road accidents (NRA) per BS in the individual regions of the SR for the year 2004

From the view of the development of the number of road accidents the upward trend can be observed for the period of the years 2000 - 2004. The statistics for the last five years shows a significant increase of the number of road accidents both at the level of NUTS1 and at the level of NUTS 2. The exception is the year 2002, when a slight decrease of the number of road accidents in comparison with the year 2001 was observed in the regions of Bratislava and East Slovakia. The actual state of road safety, development of accident rate and its consequences in Slovakia are rather alarming. During the previous five years the number of road accidents in the SR increased by 20.2% which is caused among others by the considerable increase of the traffic intensity.

In the development of the number of road accidents in the year 2004 a partial increase against the previous year can be observed.

In 2004 on roads in the SR 61 233 accidents were registered, which represents an increase of 20% against the year 2000. From total number of road accidents, in the year 2004, road users were killed on the average in each 102<sup>nd</sup> accident, which represents a considerable improvement against the year 2000, when a road user was killed in each 81<sup>st</sup> accident. In 2004 among others a decrease of the number of road accidents connected with fatal, serious and slight injuries of persons involved in an accident was registered.

Tab. 31: The number of road accidents by regions – NUTS 2 and total number of road accidents
- NUTS 1 in the period of years $2000 - 2004$

		Region – NUTS 2						
Year	Region of Bratislava	West Slovakia	Central Slovakia	East Slovakia	NUTS 1			
			(number)					
2000	12 675	14 316	11 376	12 565	50 932			
2001	13 943	15 938	13 311	14 066	57 258			
2002	13 683	16 304	13 552	13 521	57 060			
2003	13 832	16 974	14 690	14 808	60 304			
2004	13 914	17 297	15 304	14 718	61 233			

Source: VÚD, a. s.

Tab. 32: Development of the accident rate in the SR in the period of years 2000 – 2004

Indicator	2000	2001	2002	2003	2004
Number of accidents	50 932	57 258	57 060	60 304	61 233
Persons killed within 14 h following RA	628	614	610	645	603
Seriously injured	2 204	2 367	2 213	2 163	2 157
Slightly injured	7 890	8 472	8 050	9 158	9 033

Source: VÚD, a. s.

# **3.5** Results of the implementation of the programming period 2004 – 2006

Grants from EU funds for the transport sector in SR were provided by shortened programming period in years 2004 - 2006 as well as before her enter to EU through pre-accession aid.

## 3.5.1 Pre-accession aid

The main part of support in the pre-accession period was provided to SR by ISPA and partly also within Phare program.

The Government of SR approved, on 10 January 2002, the material "Update on National ISPA strategy, Transport sector" by Resolution No. 22/2002. The Update consisted of ISPA projects list in transport infrastructure, situated mostly in the area of international transport corridors No. V and VI. Selection of transport projects into ISPA program was expression of SR and EU priorities in transport infrastructure area just how was it defined by government approved actualised rules of SR state transport policy and EU Regulation no. 1267/99, by which was established instrument of structural policy ISPA. According to financial charges were the projects oriented not only on program ISPA, but also on Cohesion fund after joining the EU.

From the ISPA fund SR gained for the projects of transport infrastructure in the years 2000 – 2006 highest possible grant 170 889 mil. EUR.

ISPA National Strategy, Transport sector	Name of the Project	km
	Modernisation of the railway track Bratislava Rača – Trnava, in sector Bratislava Rača - Šenkvice	13,4
Railway infrastructure	Modernisation of the railway track Šenkvice – Cífer and stations in sector Rača - Trnava	21,6
	Modernisation of the railway track Trnava – Nové mesto nad Váhom, sector Trnava - Piešťany	33,0
Road Infrastructure	D1 Bratislava Viedenská cesta – Prístavný most	3,9

Tab.	33:	List	of pr	oiects	realized	within	the	ISPA	instrument
I uU.	JJ.	LISU	or pr	ojeets	realized	<b>vv</b> 1 <b>t</b> 11111	uno	10171	monument

Mentioned 4 projects covered 100% of ISPA possible resources for the area of transport projects. This fact confirm, that transport department prepared high-grade projects, which were able to absorb all EU resources within ISPA without the rest. The Projects approved within aid from ISPA instrument were from the date of enter SR to EU implemented in accordance with the rules of Cohesion fund.

## 3.5.2 Programming period 2004-2006

In the framework of the programme period 2004 – 2006 the Ministry of Transport, Posts and Telecommunications of the Slovak Republic (MTPT SR) performed the function of an Intermediary Authority reporting to the Managing Authority for the Operational Programme Basic Infrastructure (IAMA OPBI) for the Priority 1 – Transport Infrastructure and the function of an Intermediary Authority reporting to the Managing Authority for the Cohesion Fund, section Transport.

On the basis of the Mandate for the Delegation of Powers between the Ministry of Construction and Regional Development of the SR (MCRD SR) and MTPT SR a substantial part of powers of the Managing Authority – MCRD SR, particularly in the area o management and control of the utilisation of resources from ERDF and CF, was delegated to MTPT SR.

For the reduced programme period of years 2004 - 2006 the volume of financial resources from the Structural Funds and the Cohesion Fund in the amount of EUR 1 560 mil. Was allocated to the SR. It represents 6.9% of the total commitment of the European Union to the candidate countries of the respective period. From the total amount EUR 1 050.3 mil. Were allocated for the Structural Funds and EUR 509.7 mil. For the Cohesion Fund (the values are indicated in constant prices of the year 1999).

## **Cohesion Fund**

In the reduced programme period of years 2004 - 2006, the amount of EUR 254.85 mil. Was allocated to the Slovak Republic in the framework of the Cohesion Fund for the transport sector.

For the purpose of the drawing of funds from the CF for projects supporting the transport and environmental infrastructure, a separate programme – *Strategy for the Cohesion Fund of the Slovak Republic 2004 – 2006 –* was prepared.

In the previous period the building of transport infrastructure in the framework of the cofinancing from the Cohesion Fund was aimed to the construction and modernisation of railway and road infrastructure in the lines of multimodal corridors. In comparison with the strategy for the Structural Funds in the area of transport, that was aimed to the interconnection of regions at the national level, the basic aim of the Strategy for the CF in relation to transport projects was the improvement of the integration of the SR, and hence its regions, into the European transport network.

In the area of transport infrastructure the resources from the Cohesion Fund were allocated by the decision of the European Commission for the construction of the motorway "*D1 Mengusovce – Jánovce*" in the volume of EUR 140 782 040 and for the project "*Modernisation of the railway track in the section Piešťany – Nové Mesto nad Váhom*" in the amount of EUR 66 093 840. The remaining funds were used for the initial ISPA projects that have become projects of the Cohesion Fund following the accession of the SR into the EU.

Tab. 34: List of projects implemented in the framework of the Strategy for the CF of SR 2004 – 2006

Strategic development aims	Name of project	km
Modernisation and development of railway transport infrastructure	ŽSR (Railways of the SR), Modernisation of the railway track Piešťany – Nové Mesto nad Váhom	20.0
Modernisation and development of road transport infrastructure	D1 Mengusovce – Jánovce	25.9

## **European Regional Development Fund**

On 29 June 2004 by the decision of the European Commission the Operational Programme Basic Infrastructure as a part of the Framework of the EC Support was approved, by which conditions for drawing of financial resources from the Structural Funds were fulfilled.

The Operational Programme Basic Infrastructure (OP BI) tied up with objectives and priorities of the National Development Plan 2004 – 2006 and was aimed at the solution of problems related to the regional development, falling within Objective 1, in the Slovak Republic and to the removal of existing regional disparities that were identified and described in the National Development Plan for the areas of transport, environmental and local infrastructure.

In the framework of OP BI three basic priorities were defined. The Priority 1 - Transport Infrastructure fell within the direct competence of MTPT SR as IAMA. For the period of years 2004 - 2006 the Priority 1 - Transport Infrastructure comprised three measures aimed at the modernisation and the development of railway, road and air transport infrastructure. The focus of the individual measures was concentrated in the area of railway infrastructure to the modernisation measures in the form of the electrification of railways and the adaptation of railway stations, in the area of road infrastructure particularly to the development of the expressways network, and in the area of the air transport infrastructure the measures were implemented for the purpose of the improvement of airport security.

For the Priority 1 - Transport Infrastructure in the framework of the OP BI the amount of EUR 182.42 mil. Was allocated. It represents 48.82% of the total amount of EUR 373.62 mil. Allocated in the framework of the OP BI.

Measure	Name of project	km
1. Modernisation and	ŽSR, Zvolen – Banská Bystrica electrification of the line, including pre-electrification adaptations	21
development of railway transport	ŽSR, Railway station in Prešov – construction of railway platforms	1,0
infrastructure	ŽSR, Railway station in Poprad – Tatra, construction of underpasses and platforms	2,0
2. Modernisation and	R1, Rudno nad Hronom – Žarnovica	10,0
development of road	R2, Ožďany, by-pass road	6,1
transport infrastructure	R2, Figa, by-pass road	3,3
3. Modernisation and development of air transport infrastructure	Modernisation of the security system of airports – Airport Piešťany, Inc., Airport Žilina, Inc., Airport Sliač, Inc., Airport Poprad, a. s.	-

Tab. 35: List of selected projects implemented in the framework of OPBI 2004 – 2006

## Evaluation of the experiences with the EU support 2000-2006

During the year 2002 the Slovak Republic enclosed the negotiations on Chapter 21: Regional policy and coordination of structural instruments and started the intensive work on the preparation of Slovakia for the implementation of structural funds. Important decisions and measures were taken: delimitation of regions at the NUTS II level, launch of the programming process, establishment of the Managing, Paying and Monitoring authorities for the EU funds, establishment of the system of financial management, control and internal audit for structural funds, decision in financial tables issue, creation of projects preparation procedure etc..

Throughout the process of programming, preparation and implementation MTPT had to deal with several problems and that mainly in the area of the: necessity of legislation approximation between SR and Community, establishment of personal framework, establishment of institutional framework with chosen model of single Managing Authority, formation of implementation mechanisms as well as of objective seriousness of investment preparation of transport infrastructure projects (property settlement, building permit, public procurement etc.).

In period 2000-2006, MTPT SR elaborated several strategic documents for use of support from the EU funds – mainly the National ISPA Strategy (transport sector), National Development plan of SR (transport sector), Slovakia Cohesion Fund Strategy for the 2004 – 2006, Operational Programme Basic Infrastructure (OPBI) and the OPBI Programme Complement. Elaboration of these documents was not fully in the competence of MTPT, in some cases it was in progress with the involvement of several departments, what prolonged the whole programming system because of prolegomenous communication. Programming period 2007-2013 presumes a simplification of the framework process of programming, as well as consecutive unification of procedures within the implementation of projects co-financed from Cohesion Fund and ERDF on period 2007-2013, what will result in qualitative change and in the introduction of more effective work process.

In contrast to the pre-accession support, in 2004-2006 it was needed to elaborate the internal manuals of procedures at the level of management of the Cohesion fund and structural funds, including the audit trials with detailed description of management and implementation of support at all the levels which include the flow of information, documents, financial resources, evaluation and control. The system also required the elaboration and conclusion of agreements and contracts with the end beneficiaries on the implementation of the projects with consequential procedures of financial resources drawing, its monitoring and assessment. The positive for

programming period 2007-2013 is the fact, that it could build on existing architecture of elaborated documents and procedures as well as on personal relations within the communication in the cross-sectional areas.

Concerning the formation of management and implementation procedures and the realisation of activities related to the preparation, management, implementation, monitoring and control of projects co-financed from the EU funds, as well as with the provision of their compliance with EC policies and with state transport policy, the MTPT SR progressively created organisational units/bodies and provided their personal constitution. The positive assignment is that for relatively short period the SR afforded to cope with the administrative seriousness of EU funds implementation process. MTPT SR is currently considering the increase of expert administrative capacities from 82 (as per 1.1.2007) to 148 employees. Number 148 is a target status, which is going to be fulfilled throughout the planning period proportionally with the increase of work related to the preparation and implementation of 2007-2013 programming period.

For the selection of transport infrastructure projects, MTPT SR doesn't apply the system of calls, as it is in case of other departments (operational programmes), but it compiles the pipeline of transport constructions, which reflect the purposes and priorities of the sector. One of the criteria for the classification of the projects into the pipeline is also the project preparedness. MTPT SR had to deal with relatively high allocation from the EU funds on the one hand and with low preparedness of transport constructions on the other hand. In parallel with the need of implementation of the projects in a short time horizon the approximation of the law of SR and Community was in the progress, what mainly in the area of public procurement caused the suspension of implementation of the projects and the need to put up new tenders.

To the suspension of the implementation of projects financed from the CF and ERDF 2004 - 2006 resources, whether in consequence of repeating of public procurement, other objective reasons or additional environmental objections after the issue of territorial decision from the side of non-governmental organisations and civil associations, it occurred in many projects (e.g. R1 Žarnovica – Šášovské Podhradie - I. stage, R3 Trstená by-pass, D1 Mengusovce – Jánovce, railway line modernisation Piešťany – N.M. nad Váhom). MTPT SR defined new alternative projects within the Measure 1.2 Modernisation and development of road infrastructure . The problem of public procurement and putting up the public offers is currently provided by approximated legislation by the Act No 25/2006 Coll. on public procurement and amendment of some acts. Also by this reason, higher number of projects than it is able to implement from the operational programme allocation, is listed in the Annex 1.

Within the process of programming in period 2004-2006, end beneficiaries of EU funds support were explicitly defined in the OPBI Programme Complement. In case of any change in the list of these beneficiaries such change was approved in the Monitoring Committee for OPBI, whereby the approval itself was precluded by the administrative fulfilment of the procedure of changes proposals submission, or the modification of the OPBI Programme Complement.

Such case occurred in connection with the transformation of Slovak road administration and Slovak airport administration, where a change of character of end beneficiaries of the support within the Operational Programme Basic Infrastructure, Priority 1 – Transport infrastructure, occurred. MTPT SR prepared a proposal of modification in compliance with the Curriculum for the submission of the proposals on adjustment of the OPBI Programme Complement, prepared by the OPBI Managing Authority. MTPT SR was also obliged to justify the relevance of end beneficiaries towards the European Commission and single directorates. The whole process of end beneficiaries exchange eventually lasted for almost 6 months. Also because of this reason the potential beneficiaries will not be mentioned in the operational programme.

Above mentioned factors (objective and subjective as well) affected (mainly in the programming period 2004-2006) the slower start of the EU support drawing and thereby also the slower fulfilment of set physical and financial indicators. The slower start of implementation of the

project is closely associated with the necessity of finances transfer into following years in terms of the rule n+2, what subsequently raised the demands on the administration in given years. Because of this, in 2007 and 2008 a big part of projects from 2004-2006 programming period will still be in the process of the implementation, which are needed to be administratively processed, especially in terms of financial management (control of invoices, requests for a payment, "on-the-spot" controls etc.). Caused time delay is solvable and will be removed according to the eligibility for the resources utilisation.

As the implementation of the infrastructure projects is capital- and time-intensive process, where the preparation and construction alone last normally for several years, it is presently too soon to evaluate the total impacts and attained effect within the framework of modernisation and development of transport infrastructure, especially in period 2004-2006.

# **3.6 SWOT** analysis

The SWOT analysis is based on the description of the actual situation and covers the identified key disparities of the transport sector.

The analysis of the transport sector in Slovakia represents a summary evaluation of strengths and weaknesses, opportunities and threats, and provides the basis for the formulation of aims of OPT 2007 - 2013. The analysis is shown in the table 37, structured by the character of supported area.

Tab. 36: Scheme of a part of the	SWOT analysis with regional	projection at the level of NUTS 3

Strengths	<b>Regional projection</b>							
Railway infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
High coverage of the territory by railway transport infrastructure						Х		Х
Location of multimodal corridor Va – main railway track	Х	v		v		v	v	v
Bratislava – Žilina – Košice		Х		Х		Х	Х	Х
Location of supplementary TEN-T corridor – railway track Bratislava – Zvolen – Košice			Х		Х	Х		Х
Integration of railway track Bratislava – Zvolen – Košice into the Trans European railway network (TEN-T)		Х	х		х	Х		X
Road infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Degree of completion of superior transport infrastructure as a part								v
of the European transport infrastructure								Х
Density of existing road transport infrastructure								Х
Completed multimodal corridor Va (motorway D1)	Х	Х						Х
Highest density of road network within the SR		Х						
Completed expressway R1 in the section Trnava – Nitra		Х	Х					
Location of expressway R2 within international routes E, TEM	Х							
Location of expressway R1 within international routes E, TEM		Х	Х		Х			
Crossing of multimodal European corridors in the west-east and								
north-south direction, that connect main residential and economic				x				x
centres of the SR and integrate them into the European transport				л				л
system								
Location of multimodal corridor Va (motorway D1), corridor VI (motorway D3) as well as supplementary TEN-T corridor in the section R3				х				
Location of the corridor of the supplementary TEN-T network in the section R3 as well as location of international routes E, TEM in the sections R1, R2					x			
Location of multimodal corridor Va (motorway D1) as well as			1					
supplementary TEN-T corridor in the section R4						Х	Х	
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Advantageous geographic position for the location of the intermodal transport terminal on railway tracks included in the AGTC				Х	х	X		X
Dynamic development of the economy encouraging the necessary development of modern transport systems	Х	X	Х	х	Х	Х	Х	Х
Railway public passenger transport		ТТ	NR	ZA	BB	KE	РО	BA
Overall developed system of public railway passenger transport and accessibility of public passenger transport		Х	Х	х	х	Х	Х	Х
Utilisation of railway passenger transport for the provision of basic transport serviceability	Х	Х	Х	Х	Х	Х	Х	Х

Weaknesses	<b>Regional projection</b>							
Railway infrastructure	TN TT NR ZA BB						РО	BA
Unsatisfactory technical and qualitative condition of railway infrastructure	Х	х	Х	Х	х	х	х	Х
Low percentage share of modernised railway tracks on total volume of the existing system of railway tracks (%)	Х		Х	Х	Х	Х	х	
Underdeveloped integrated transport system (ITS)						Х		Х
Road infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Exceeded transport performance on the motorway D1		Х						Х
Uncompleted TEN-T corridor (motorway D1)				Х		Х	Х	
Low share of superior-class roads on the total length of roads				Х	Х		Х	
Unsatisfactory technical condition of first-class roads				Х	Х	Х	Х	Х
Uncompleted network of expressways	Х		Х	Х	Х	Х	Х	
Lowest density of road network within the SR				Х				
Exceeded permissible intensity on the first-class road I/18				Х			Х	
Low level of Intelligent transport systems entry	Х	Х	Х	Х	Х	Х	Х	
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Low level of the utilisation of the capacity potential of the existing system of intermodal transport terminals	Х	Х	Х	Х	Х	Х	х	х
Low technical and qualitative level of the infrastructure of intermodal transport terminals	Х	Х	Х	Х	Х		х	х
Absence of the network of public intermodal transport terminals	Х	Х	Х	Х	Х	Х	Х	Х
Railway public passenger transport		ТТ	NR	ZA	BB	KE	РО	BA
Sharp increase of individual automobile transport		Х	Х	Х	Х	Х	Х	Х
Obsolete railway stock used in public passenger traffic	Х	Х	Х	Х	Х	Х	Х	Х
Unsuitable division of transport work in public passenger traffic	X X X X X X			Х				
Absence of integrated transport systems	Х	Х	Х	Х	Х		Х	

Opportunities	<b>Regional projection</b>							
Railway infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Support of integrated transport systems in mass passengers transport						Х		х
Opportunity for the completion of the carrier transport system meeting the regional needs with connection to the international transport corridors with utilisation of EU funds (construction of a decisive railway junction)								х
Interconnection of international airports in Bratislava and Vienna								Х
Modernisation of railway tracks within multimodal corridors no. V and VI.	Х			Х		х		
Improvement of transport accessibility by railway transport	Х	Х		Х	Х	Х	Х	Х
Travel time saving, increase of track speeds and increase of modernized tracks efficiency.	Х	Х		Х		х	Х	х
Increase of safety and reliability of railway performance on modernised tracks by improvement of total technical status of railway infrastructure.	Х	х		х		х		х
Increase of railway transport share on performances in freight and passengers transport (i.e. preservation of current transportation shares of railway transport)		х		х		x	X	х
Achievement of tracks interoperability by TSI	Х	Х		Х		Х		Х
Improvement of environment status, i.e. decrease of harmful effects (decrease of emissions, noise and vibrations)	Х			Х		Х	Х	Х

Road infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Modernisation of road network – first-class roads	Х	Х	Х	Х	Х	Х	Х	
Perspective of completion of the motorway transport system	Х							
Improvement of region transport availability by construction of highways and expressways in TEN-T network corridors and international routes E (in direction west – east and north – south)	X	X	X	Х	х	Х	Х	X
Decrease of time and energy wastes by constructing highways and expressways	Х	Х	Х	Х	Х	Х	Х	Х
Decrease of transport harmful effects on environment and population health by construction highways, expressways and town by-passes for exclusion of transit transport from town residential area.	Х	Х	Х	Х	х	Х	Х	Х
Increase of safety and smoothness of road traffic by removal of critical accident locations, crash points and narrow spots on road network.	X	X	X	X	x	X	X	X
Increase of employment in the connection with region development subject to improved transport availability.	Х		Х	Х	Х	Х	Х	
Reducing of accidents, energetic efficiency congestions and better use of exist roads by application of IDS on road network	Х	Х	Х	Х	Х	Х	Х	
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Construction of interconnecting points between transport modes – public terminals of public intermodal transport terminals				Х	Х	Х		Х
Improvement of the quality of transport service by the improvement of logistic services	Х	Х	Х	х	Х	Х	Х	Х
Support of intermodal transport position (growth of transport performances)	Х	Х	Х	Х	Х	Х	Х	Х
Conditions creation for division change of transport work in behalf of more ecological transport modes.	Х	Х	Х	Х	Х	Х	Х	Х
Public railway passenger transport	TN	ТТ	NR	ZA	BB	KE	РО	BA
Higher level of utilisation of the railway passenger transport capacity and faster return of investments in the railway infrastructure and in the modernisation of transport means	Х	Х	Х	Х	Х	Х	Х	Х
Support of the transfer of transport performances from individual automobile transport to more ecological public railway passenger transport		X	Х	Х	Х	Х	Х	X
Support of integrated transport systems						Х		Х
Demand after mass passenger transport increase in the connection with increase of travel quality and comfort.	Х	Х	Х	Х	Х	Х	Х	Х

Threats	<b>Regional projection</b>							
Railway infrastructure	TN	TT	NR	ZA	BB	KE	РО	BA
Decrease of competitiveness of the railway transport	Х	Х	Х	Х	Х	Х	Х	Х
Decrease of the volume of transport by rail and increase of negative environmental impacts of the transport			Х	Х	Х	Х	Х	х
Increasing costs of repairs and maintenance of the railway transport infrastructure	х	Х	Х	Х	Х	Х	Х	х
Road infrastructure	TN	TT	NR	ZA	BB	KE	РО	BA
Increasing accident rate on the motorway D1 in the section Bratislava – Trnava caused by the exceeding of permissible intensity		х						х
Increasing costs of maintenance and repairs of the road infrastructure	х	х	Х	Х	Х	Х	Х	Х
Delays in the construction and modernisation of road network	Х	Х	Х	Х	Х	Х	Х	

Decrease of transport accessibility and resulting decrease of the attractiveness of the territory of the SR for investors			Х	Х	Х	Х	Х	
Increasing accident rate on the first-class road I/18 caused by the exceeded permissible intensity				Х			Х	
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
Deterioration of transport service	Х	Х	Х	Х	Х	Х	Х	Х
Slowdown of economic growth	Х	Х	Х	Х	Х	Х	Х	Х
Increase of environmental stress	Х	Х	Х	Х	Х	Х	Х	Х
Public railway passenger transport	TN	ТТ	NR	ZA	BB	KE	РО	BA
Permanent transfer of passengers from the public passenger		x	x	х	x	x	x	x
transport to the individual transport	Х	Х	л		21	л	~	Λ
	X X	X X	X	X	X	X	X	X
transport to the individual transport Ineffective utilisation of public resources for the provision of				X X				

# 3.7 Main disparities and development factors

Tab. 37: Scheme of key disparities in process with regional projection at the level of NUTS 3

Key disparities	<b>Regional projection</b>							
Railway infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
1. Unsatisfactory technical and qualitative condition of railway transport infrastructure	Х	х	Х	Х	Х	Х	Х	Х
2. Non-fulfilment of conditions of the interoperability of Slovak railways	Х	Х	Х	Х	Х	Х	Х	Х
Road infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
1. Unsatisfactory technical and qualitative condition of road transport infrastructure		Х		Х	Х	Х	Х	Х
2. Incompletion of motorway corridor within the international TEN-T network	Х			Х		Х	Х	
3. Low share of superior-class roads (motorways and expressways)			Х	Х	Х	Х	Х	
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
1. Unsatisfactory technical and qualitative condition of intermodal transport infrastructure – terminals	х	х	Х	Х	Х		Х	Х
2. Absence of a network of public intermodal transport terminals and their connection to the logistics	Х	Х	Х	Х	Х	Х	Х	Х
Public railway passenger transport	TN	ТТ	NR	ZA	BB	KE	РО	BA
1.Unsatisfactory technical condition of mobile means of public railway passenger transport	Х	Х	Х	Х	Х	Х	Х	Х
2. Increasing difference between technical parameters of modernised railway infrastructure and technical condition of mobile means	Х	х		Х		Х	Х	x
3. Low quality of services of regional railway passenger transport, particularly from the view of the utilisation of communication and information technologies and integrated transport systems	Х	x	x	х	х	х	х	x

Tab. 38: Scheme of	development	factors	in process	with	regional	projection	at the	level (	of
NUTS 3									

Development factors	<b>Regional projection</b>							
Railway infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
a. Modernisation and development of infrastructure of the European railway network in the territory of the SR (1), (2)	Х	Х	Х	Х	х	Х	Х	Х
b. Implementation of the ERTMS (European Railway Transport Management System) (1), (2)	Х	Х	Х	Х	Х	Х	Х	Х
Road infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
a. Development of superior road corridors as a part of the European transport infrastructure (1)	Х	Х	Х	Х	Х	Х	Х	х
b. Road infrastructure as a part of the European transport infrastructure (1)	Х	Х	Х	Х	Х	Х	Х	х
c. Improvement of technical and qualitative parameters of road infrastructure (1)	Х	Х	Х	Х	Х	Х	Х	х
Intermodal transport infrastructure	TN	ТТ	NR	ZA	BB	KE	РО	BA
a. Building of a public intermodal transport terminal (1)				Х	Х	Х		Х
b. Connection of terminals to logistic centres				Х	Х	Х		Х
Public passenger transport		ТТ	NR	ZA	BB	KE	РО	BA
a. Reconstruction of mobile stock of public railway passenger transport (1), (2)	Х	Х	Х	Х	Х	Х	Х	Х
b. Integration of transport systems at the level of selected regional conglomerations (3)						Х		х

# 4 Strategy of the Operational Programme

# 4.1 Basis of the OP strategy

The strategy of OPT is based on analyses for the individual areas of transport, the SWOT analyses, identifying the key disparities and development factors. The priority axes correspond to the needs identified in the analysis and are aimed to the support of development factors. The strategy including priority axes is coherent with the strategy, strategic aim and priorities of the NSRF.

# 4.1.1 Results of the analysis of actual situation

The abovementioned SWOT analysis of the transport sector points out to existing differences in the level of development of transport infrastructure and indicates areas through which it will be possible to achieve the improvement of the unsatisfactory actual situation at the international, national and regional level. For selected transport modes their main strengths and weaknesses, opportunities and threats that provide a well-founded description of their actual state, were chosen for the SWOT analysis.

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 we plan as a priority the construction of the motorway network in the lines of the carrier TENT-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 connection with the effective exchange of goods it is necessary to build not only a suitable transport infrastructure of the individual transport modes, but also basic interconnecting points of the intermodal transport network for the purpose of the development of more ecological transport systems. The existing network of container terminals in the SR is technically and technologically obsolete, does not meet basic parameters defined by the AGTC and, with the exception of one terminal, the other container terminals are non-public (privately owned), therefore they are unable to provide services required by the actual transport market. For this reason it is necessary to ensure the development of public intermodal transport terminals that will provide services on a non-discriminatory principle.

For the support of the public passenger transport, realisation of integrated transport systems is needed in the biggest city agglomerations (Bratislava, Košice) and progressive modernisation of mobile means operating mainly in the suburban and regional passenger railway transport.

# 4.1.2 Vision and strategy of NSRF

The vision of the NSRF SR 2007 - 2013 is the achievement of 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 and

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. The development of transport infrastructure will become a key instrument for the removal of disparities between the individual regions. The access of regions to the superior transport infrastructure on the routes of multimodal corridors (TEN-T network), on the routes with international and national character, and the interconnection of regions will also improve, which will result 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.

The factors mentioned above considerably influence economic indicators such as employment, growth of GDP, the increase of investments in the region and the development of services. These parameters have the direct impact on the socio-economic development of the SR, affect the economic growth and contribute to the convergence to the most developed countries, under the condition of the sustainability.

## 4.1.3 Basic strategic documents

The basic document of the SR for the implementation of the individual priority axes of the transport sector is "Transport Policy of the SR until the Year 2015" adopted by the Resolution of the Government of the SR No 445/2005, that forms the basis for the elaboration and the implementation of conceptions of the development of the individual transport modes until the year 2015.

In the context of the iteration programming process in the individual programme periods of drawing of financial resources from the EU funds, the following basic documents and their strategies were taken into account in the preparation of OPT:

- Conception of Territorial Development of Slovakia 2001 (approved by UV No 1033/2001),
- National Development Plan 2004 2006 (approved by RG SR No 166/2003),
- Sectoral Operational Programme Transport 2004-2006,
- Operational Programme Basic Infrastructure 2004 2006 (approved by RG SR No 175/2004),
- Strategy for the Cohesion Fund of the Slovak Republic 2004 2006 (approved by RG SR No 1136/2003),
- Analysis and focus of the strategy of support from the EU funds in transport (approved by the 9<sup>th</sup> PVM of 17 May 2005, Conclusion No 69),
- Amendment of the National Strategic Reference Framework of the SR 2007 2013 (approved by RG SR No 832/2006).
- Action plan of transport policy (approved by the 6<sup>th</sup> PVM of 16 April 2007, Conclusion No 42)

# 4.2 Aims of OP

## 4.2.1 Global aim

# The global aim of OPT is the support of the sustainable mobility through the development of transport infrastructure and the development of public passenger transport.

The implementation of this aim will contribute to the improvement of the accessibility of the SR, its individual regions and their interconnection, and in synergy with aims of the other operational programmes also to the reduction of regional disparities and to the support of the development of economic activities and to the improvement of the competitiveness of the SR.

The OPT is primarily aimed to the construction and the modernisation of transport infrastructure of the SR and its integration into the European transport system. At the same time it represents a means for the successive elimination of unsatisfactory parameters of the transport infrastructure in regions and urgent issues in the area of safety, reliability and quality of the transport. The OPT is aimed particularly to:

- The construction of transport infrastructure for the purpose of the improvement of the effectiveness and quality of the transport system at the international and national/regional level;
- The improvement of transport infrastructure parameters and the approximation to the EU standards;
- The improvement of the access of the individual regions to the transport infrastructure;
- The support of public railway passenger transport;
- The support of integrated transport systems in passenger transport;
- The proportional development of the individual transport modes;
- The reduction of negative environmental impacts of the transport;
- The increase of transport safety.

## **Programme indicators**

A system of measurable indicators enabling to monitor the implementation at the level of both the priority axes and the Programme (as a whole) was designed for OPT. The purpose of the designed system is the measurement of the fulfilment of overall aims using indicators that allow to monitor the implementation of the Programme and evaluate its efficiency in relation to the defined aims. At the level of the Programme and priority axes the core indicators, indicators of output and indicators of result will be monitored.

In view of the content of measures of the individual priority areas "core indicators" will be monitored at the level of the Programme. This category of indicators is characterised by the possibility to compare (or aggregate) using these indicators data across the operational programmes, which will enable the measurement of the improvement through both the NSRF and OPT. The core indicators of OPT are in compliance with the list of basic indicators at the programme level, elaborated by the European Commission.

The initial and target values of core indicators at the level of both the programme and the priority areas are preliminary and their final value will depend on projects selected for the implementation. The selection of the individual projects will depend on the state of their project and investment preparedness.

The initial and target values of indicators are related to the beginning of the programme period, i.e. 1 January 2007, and to the end of the programme period, i.e. 31 December 2015.

# Tab. 39: Programme indicators

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICATO	ORS OF OUTPUT				
Core 19	Length of modernised railway tracks	Length of modernised railway tracks (km)	92	282	MTPT SR
Core 14	Length of new roads	Length of new motorways, expressways and first- class roads (km)	24,2	194	MTPT SR
INDICATO	ORS OF RESULT				
Core 21	Time saving (railway transport)	Time saving in passenger/goods transport (min)	0	55 / 300	MTPT SR
Core 20	Time saving (road transport)	Time saving in passenger/goods transport (mil. EURO)	0	72,4	MTPT SR
INDICATO	ORS OF CONTEXT				
	Density of higher class roads (motorways and expressways)	Represents the proportion of length of higher class roads (motorways and expressways) in operation to the area of SR (km/thous. sq. km)	9	11,5	MTPT SR
	Density of higher class roads (motorways and expressways)	Represents the proportion of length of higher class roads (motorways and expressways) to thous. inhabitants of SR (km/thous. inhabitants)	0,08	0,11	MTPT SR
	Share of railway transport on freight transport performance	Represents the share of railway transport on total performance of freight transport of SR in %	28,7	30	MTPT SR
	Share of railway transport on passenger transport performance	Represents the share of railway transport on total performance of passenger transport of SR in %	5,5	5,9	MTPT SR
	Number of fatalities in consequence of traffic accident in road transport	Number of fatalities in consequence of traffic accident in road transport (fatalities/100 thous. inhabitants)	10,7	9,4	MTPT SR

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

## 4.2.2 Specific aim of OP

The global aim of OPT defined above will be fulfilled through a set of specific objectives. These result from identified areas that require the intervention and are oriented to the support of development factors.

While respecting results of the analysis, taking into account the existing development plans in the sector based on the strategic documents, and in order to ensure the continuity with the previous period of years 2004 to 2006, the following specific aims were proposed for the fulfilment of the global aim:

#### **<u>1.</u>** Specific aim 1 – Modernisation and development of railway infrastructure

Through the progressive improvement of technical and technological parameters level of railway traffic routes, to create conditions for growth and competitiveness of railway transport, increase of its safety and achievement of interoperability.

## 2. <u>Specific aim 2 – Modernisation and development of road infrastructure</u>

Increasing the density of higher class road network, improvement of smoothness and safety of road traffic, accessibility improvement of SR, individual regions and their interconnection.

## <u>3.</u> <u>Specific aim 3 – Modernisation and development of intermodal transport</u> <u>infrastructure</u>

Improvement of intermodal transport position and thereby the creation of conditions for the change of transport work division in behalf of more ecological transport modes.

## 4. <u>Specific aim 4 – Development of public railway passenger transport</u>

Creation of conditions for public passenger transport performance growth, especially in urban, suburban and regional transport.

The indicated specific aims will be achieved through the implementation of activities of the proposed priority axes of the Operational Programme. In the process of the preparation of the strategy 7 priority axes were defined:

## **COHESION FUND:**

Priority axis 1 – Railway infrastructure Priority axis 2 – Road infrastructure (TEN-T) Priority axis 3 – Intermodal transport infrastructure Priority axis 4 – Integrated transport systems infrastructure

## ERDF:

Priority axis 5 – Road infrastructure (expressways and first-class roads)

Priority axis 6 – Public railway passenger transport

Priority axis 7 - Technical assistance

As the strategy of OPT will be implemented through financial instruments CF and ERDF, the system of priority axes is divided into two basic groups. The first group of priority axes will be implemented through financial support from CF, while the second, no less important group will be implemented through the financial support from ERDF.

The product of the proposed priority axes is the pursued synergy and cohesion of these financial instruments for the purpose of the fulfilment of the set aims.



# 4.3 **Description of the strategy**

An inseparable part of the NSRF is the strategy of the development of transport infrastructure and the accessibility of regions in Slovakia, that is directly followed and specified by OPT. The OPT for the period of years 2007 – 2013 is formulated so as to contribute to the fulfilment of the strategic aim defined in the NSRF, which is "*By the year 2013 to considerably increase the competitiveness and performance of regions and economy of the SR while observing the sustainable development*".

The strategy of OPT has a hierarchic structure consisting of the global aim, four specific aims and 7 priority axes. The strategy of OPT is based on main disparities and development factors identified at the level of the NSRF. These were modified into key disparities and main development factors and specific aims for the transport sector.

The strategy of OPT is based on and compliant with:

- the strategic aim of the NSRF 2007 2013,
- outputs of the SWOT analysis and conclusions of the SWOT analysis of the transport sector,
- development plans defined in the Transport Policy of the SR until the year 2015,
- existence of the conceptual and development programmes for the individual transport modes, approved by the Government,
- availability of the financial support from the Cohesion Fund and the ERDF, the scope of their application and competences for the transport sector, as well as recommendations of the European Commission,
- PDG for the period of years 2006 2010.

The transport infrastructure is an important factor in the improvement of the competitiveness of the SR, establishes connection between regions of the SR and central EU markets, is a condition of the development of the tourism and inflow of foreign investments, and forms an integral part of the everyday life of the inhabitants. Without an efficient transport system enabling the full use of the internal market and globalised trade it is difficult to plan a strong economic growth that is able to create new jobs and improve the living standard of the population.

The aim of the development and modernisation of the Slovak transport infrastructure is to react to problems caused by the current state of the transport network of the SR. The focus of the development of transport infrastructure in the SR in the programme period of years 2007 - 2013 is based particularly on requirements for the improvement of quality, especially of the infrastructure of railway and road transport, with regard to the improvement of transport safety and reliability.

Within the network for interstate transport relations, the condition of the achievement of spatial compatibility and mutual equality of the transport system of the SR with the EU transport system is the preference of the completion of main European corridors and interconnecting points of the individual transport modes, identified in the territory of the SR. Therefore a priority of OPT is the construction and modernisation of transport infrastructure in the approved routes of multimodal corridors (TEN-T network) and to the support of the completion of the superior transport infrastructure with international importance, for the purpose of the connection of the Slovak infrastructure to the European transport network, as well as for the purpose of the improvement of the accessibility of Slovak regions.

The OPT is aimed to the development of railway, road and intermodal transport infrastructure and to the support of the development of public passenger transport.

#### 4.3.1 Railway infrastructure

In view of the environmental advantages and relatively high safety of passenger and goods transport, the EU plans more frequently mention the need of the increase of the share of railway transport on the transport market. The developed and technically satisfactory railway infrastructure meeting the necessary speed parameters for competitiveness achievement of the railway infrastructure counter to the motorway network and matching the EU requirements concerning the interoperability of railway infrastructure represents the establishment of basal presumptions for the increase of railway transport competitiveness counter to the road transport and one of the key possibilities for support of the railway transport share increase at the expense of less ecological road transport.

A positive factor of the railway transport infrastructure of the SR is the relatively high network density, which together with the high density of railway stations ensures the good accessibility of both the passenger and goods transport. The development of railway transport infrastructure can be therefore achieved mainly by means of the modernisation of this infrastructure, and particularly of international corridors.

The development of railway infrastructure of the SR is based on the basic international agreements AGC (Accord europeen sur les grandes lignes internationale de Chemin de fer) and AGTC (Accord europeen sur les grandes lignes de transport international combine et les installations connexes). With the integration of the railway network of the SR into the system of European transport routes certain obligations were accepted such as to comply with international agreements and technical requirements (interoperability) that warrant the potential further development and the compatibility with neighbouring Railway Administrations.

The "*Programme of the Development of Railway tracks until the Year 2010 and Proposed Financing of Investment Projects*" approved by the Government is aimed to the implementation of investment construction projects in the framework of the modernisation of the railways of the SR, particularly to the improvement of the international corridors mentioned above. The programme is focused on the implementation of the modernisation of railway transit corridors, modernisation of railway border crossing stations, completion of decisive railway junction, stops and stations, ERTMS implementation etc.. For 2007 the update of this material is planned, with outlook till 2013, which will mainly evaluate and reflect the issue in fact, define the schedule of next progress of modernisation and development of railway traffic route as well as globally react on new needs and requirements of railways.

The projects of modernisation of railway infrastructure of OPT will be implemented on those lines included in the TEN-T network, which have decisive significance for the economy and mobility of SR and Community. By the course of EC Decision No 884/2004/EC list of 30 projects was specified, which have crucial significance for Community as a whole, whereby the SR is directly engaged in two priority projects for railway infrastructure area. That are namely projects No. 17 and 23, which will be primarily supported by OPT. By the modernisation of TEN-T network railway lines, parameters will be achieved, which are corresponding with the requirements of the provision of competitive quality rail services and with the fulfilment of the EU norms and international agreements (AGC and AGTC).

The strategy of corridor Va (priority project No. 23) modernisation in actual programming period (CF) links up with pre-accession aid (ISPA) and programming period 2004-2006 (CF) and it is planned so that it will come to modernisation of compact section Bratislava – Žilina in length of approximately 200 km. In this regard are the interventions in the project pipeline concentrated in the western and central Slovakia as a flowline and therefore a necessary condition of connection of lesser developed regions with developed areas, neighbour EU member states and TEN-T network. The operation of this section with speed up to 160 pm/h will markedly reduce the travelling time in passenger and driving time in the freight transport, what

in term of time will also improve the interconnection of regions in direction north – south and west – east.

In synergy with the modernisation of VI corridor (priority project No. 23) and by the interconnection of corridors on the territory of Bratislava city (priority project No. 17) a significant proposition for development and position improvement of international as well as nationwide railway transport will be achieved.

Priority project No. 23 will markedly contribute in Pan-European measure to general strategy for attraction of the economic activities and effectiveness of transport system along the axes and will support the shift of goods flows on the railway transport.

## 4.3.2 Road infrastructure

The road infrastructure is one of limiting factors of the territorial development. The conception of the development of road network of each country, including the SR, has to be based preferably on requirements for transport service in its own territory, that is determined by the demography, urbanisation, economic potential, attractiveness for the tourism, but also by limitations imposed by the protection of the environment. This approach leads to the priorities of the construction of roads from the view of national transport needs as well as needs of transit transport in relation to the international road network.

The scope and location of the motorway network and expressway network of the SR were first defined in the document *"New Project of the Construction of Motorways and Expressways",* approved by RG SR No 162 of the year 2001. Consequently the motorway network consists of the motorways D1, D2, D3, D4 and the expressway network of the expressways R1, R2, R3, R4, R5, R6 and the planned R7 (its construction depends on the approbation of the Programme of the Construction of Motorways and Expressways until the Year 2014).

In the area of road transport infrastructure the Ministry currently fulfils the development tasks in accordance with the programme and timetable of the *"Updating of a New Project of the Construction of Motorways and Expressways"* (in the wording of later reports and amendments), that the Government of the SR approved by the Resolution No 523 of 26 June 2003. For the year 2007, updates of schedules of preparation and construction of motorways, expressways and first-class roads are planned, with outlook till 2013.

As three European transport corridors, i.e. corridors No IV, Va and VI formed in the Slovak territory by the motorways D2, D1 and D3, pass through the SR, it is reasonable to regard as a priority the construction of the motorway network in the routes of the carrier TEN-T network. Beside of the construction of motorways it is necessary to envisage the proportional development of expressways in the context of the planned international routes. This fact is reflected in the priorities of this Programme in the form of the construction of the expressway network.

It is necessary to accentuate that SR still has not completely constructed none of motorway/expressway route, which would continually connect the most important residential areas (whether in direction east – west or north – south), or it would allow a smooth transit through the country. The exception is only the motorway route D2, which after finishing of the section Bratislava, Lamačská road – Staré Grunty in 2007 will complete the last missing section of motorway route D2 from Czech republic via Bratislava to Hungary as a part of European corridor IV. Total length of motorway D2 will be 80 km.

In the area of motorways network development the investments will aim primarily into the construction of new section of motorways D1 and D3, i.e. sections leading to further enlarging of motorways network in direction to east and north of the country. In area of expressways, in following programming period will be preferred the construction of sections of roads R1, R2 and

R4. The priority is especially to put the complete route R1 Trnava – Banská Bystrica into service and removing of spot negatives in route of expressway R2. Within the expressway R4, conditions for construction of section Košice – state border SR/Hungary are created. Construction of this section will improve the connection with Hungary and it will also contribute to the generation of development incentives in relevant regions.

The benefit from construction of new motorways and expressways sections, especially in segments with greatest congestions is indisputable also in term of time and energy losses reduction, what is positively reflected also in the economic and environmental area.

Beside of the proportional development of motorways and expressways, the development and modernisation of first-class roads will play an important role in the following period. Based on executed analyses on the road network of the SR, it is necessary to solve these problems, particularly on the ground of the exceeded permissible intensities, by the modernisation of the existing and by the partial completion of new first-class roads. Further it is necessary to exclude the transit transport from the communities by means of the construction of by-pass roads, the improvement of the vertical and horizontal alignment of the route and of low technical parameters, for the purpose of the removal of collision points and black spots. This set of activities will lead to the increase of the safety and smoothness of road traffic.

The highest concentration of load currents (traffic flows) on the road network of the SR arises in the territory with highest density of population in urban units, in zones of economic activities of the individual regions and in areas with increased concentration of employment. The development of the road network therefore results from social requirements for passenger and goods transport, where the indicator of the need of its implementation is the increase of traffic flows or profile intensities, as well as the growth in the degree of automobilisation and motorization.

An important aspect for the development of the road network is the intensity of road traffic and the closely related accident rate. From all transport modes the road transport is the most dangerous and most expensive, as regards human lives. At present the situation in the area of road safety in the SR, expressed by the number and consequences of accidents, is very negative. The number of road accidents has the upward trend, but the number of killed and seriously injured persons is decreasing. The ambition of the transport policy of the SR for the years 2005 – 2015 is to decrease by the year 2010, in compliance with the EU aim, the number of casualties by 50%, to the initial level of the year 2002, so as to dramatically improve the unfavourable situation. The fulfilment of this ambitious aim will be achieved through a coordinated action putting stress on human and technical factors and ensuring that the Trans European road network will become a network providing the highest possible level of safety.

The solution for encompassment of growing traffic volumes and increasing accident rate on existing road infrastructure (mainly first-class roads) is the deployment of intelligent transport systems. Implementation of modern technologies will create conditions for capacity intensification of existing road network, increase of safety and smoothness of road traffic and reduce of congestions, especially in most loaded sections and at the black spots, whether in rural zones segments or in towns and communities residential areas.

Limited financial resources are the factor affecting the rate of development and modernisation of transport infrastructure and therefore the attention is paid not only on effective and rational spending of available public resources, but also on the search for new ways of its financing. One of such ways is financing by means of public-private partnership (PPP).

The government of SR, by the Resolution No. 523/2003 on *Updated New Project of the Construction of Motorways and Expressways* approved the preparation of PPP form utilisation in financing of selected sections of motorway D1. Presently, NDS, inc. is ensuring the preparation of first pilot PPP project for construction and operation of approximately 30 km long section of

motorway D1 - Lietavská Lúčka – Turany. If the effectiveness of this model will be proved, the ministry will consider the realisation of PPP system on relevant section with subsequent possibility of enhancing by the construction of other missing sections up to the existing section D1 Ivachnová –Važec.

Only direct financial instruments will be used for the implementation of transport projects in the programme period of years 2007-2013 and the invitation or the combination of resources received from EU funds/resources from the public private partnership (PPP)/public finance is not envisaged.

## 4.3.3 Intermodal transport infrastructure

In the area of intermodal transport the MTPT SR fulfils development tasks in accordance with the Resolution of the Government of the SR No 37 of 17 January 2001 to the Draft Conception of the Development of Combined Transport until the Year 2010, as well as with the following conceptions *"Amendment of the Conception of the Development of Combined Transport until the Year 2010*" and *"Completion of Basic Intermodal Transport Infrastructure in the SR*".

Beside of conclusions and measures in the White Paper *"European Transport Policy until the Year 2010: Time to Decide"*, the need of the development of intermodal transport infrastructure results from the commitments of the SR to upgrade railway tracks and related structures, including intermodal terminals on main Pan-European transport corridors, arising from the AGTC on the most important routes of international combined transport and corresponding structures.

Number and localisation of basal network of public terminals of intermodal transport goes out:

- from the requirement to cover maximum territory of SR with terminal services;

- from the transport potential of intermodal transport terminals on basis of elaborated studies in 2004-2006;

- from the location of transport networks of major railway lines and road communications in SR, which are included in Pan-European transport corridors, are part of TEN-T network, and the locations of railway lines included into the AGTC Agreement;

- from the intention of locating the industrial parks in SR and provision of their service on basis of the *Study on the location of industrial parks in SR*.

## 4.3.4 Public passenger transport

The public passenger transport significantly influences the development of modern society and acts as a necessary factor ensuring the mobility of labour force and has a strong relation to the coverage of basic transport needs of the population, such as travel to work, school, health facilities, offices and public institutions, whereby it allows the fulfilment of fundamental rights of citizens related to the mobility (right to employment, education, health care, etc.), and in the upshot it forms the basis for the successful implementation of all development documents approved at the European, national and regional level.

In relation to the increasing transport requirements of population and growth of individual transport it is necessary to realize fundamental measures for support of ecological transport modes development. Therefore, activities related to the development of railway transport (whether infrastructure, or mobile means renewal) were defined into the strategy, in order to increase its quantitative and qualitative parameters, so that it would manage to compete the road transport and the individual automobile transport as well.

The scale of mobile assets renewal comes out from a marketing investigation, as well as from the upcoming conception *"Modernisation and development of the mobile assets of Železničná spoločnosť Slovensko, a.s."*. Renewed mobile assets will be utilised on the lines, which are economically viable in respect to the daily transport needs of community because of work, schools, medical care, etc..

The strategy aims mainly at the integration of public railway passenger urban, suburban, regional and interregional transport, its preference within integrated transport systems at the towns and regions level and its inter-coordination with transregional, nationwide and cross-border railway passenger transport.

Public bus passenger transport will not be a subject to the support from OPT resources. Basic principle of its further development coordination is based on a shift of part of responsibility for transport service from the state on individual regions, including issues of its financing.

## 4.3.5 **Priority concentration of support**

The subject of OPT including the defined set of activities is directly related to conclusions and results of the SWOT analysis or to the description of problems and means for their solution in the area of transport infrastructure and represents a subset of individual steps for the comprehensive development of transport infrastructure.

The strategy of the OPT in the area of railway infrastructure is aimed particularly to the construction and development of tracks that are included in the European transport corridors (international TEN-T corridors) and their implementation will be ensured through the modernisation in a way ensuring the fulfilment of requirements for the interoperability, operation and occupant safety. Such aimed development of railway infrastructure will ensure that the railway transport will be competitive, maintain or increase its share on the transport market and increasingly contribute to the achievement of sustainable mobility. Basic conditions for the building of an integrated transport system in the largest urban conglomerations will be created.

Another important aim of OPT is the modernisation and development of road infrastructure on main international transport corridors as well as on national and regional roads, whereby the individual activities are planned by theme so that their mutual intersection brings a comparable development at the level of the State, regions, towns and municipalities.

The focus of the development of road infrastructure in the SR in the programme period 2007 - 2013 will be based requirements for the improvement of its quality, with orientation to the completion of the superior transport network, also for the purpose of the removal of regional disparities in less developed Slovak regions and in the area of the connection to neighbouring countries and their connection within the SR. Further steps will be also aimed to the modernisation and maintenance of the existing road infrastructure and partially to the construction of new road infrastructure of a lower class – 1<sup>st</sup> class roads.

In the area of intermodal transport the main objective of OPT is the construction of connecting points between the individual transport modes – public intermodal transport terminals. The construction of intermodal terminals will speed up the development of intermodal transport and in coordination with logistic centres it will support the goals of the globalisation of the economy at the European and world level (particularly international transport).

A separate area will be the support of reconstruction and modernisation of mobile means of public railway passenger transport, aimed to the support of the development of public railway passenger transport and its successive integration into transport systems providing basic transport serviceability at the regional level and the interregional service in the territory of the Slovak Republic.

# 4.3.6 Territorial concentration of support

From the view of the implementation of transport infrastructure projects and the development of public railway passenger transport within OPT the resources will be concentrated on the basis of priority in territorial areas, in accordance with the General Regulation.

The aim of *Convergence* financed from the CF will cover the entire territory of the SR, because gross national income (GNI) in the purchasing power parity, calculated based on available data for the last three years before the adoption of the regulation, will not achieve 90% of the average of the European Union.

The aim of *Convergence* financed from the ERDF will concentrate to NUTS2 regions, whose gross domestic product per capita in purchasing power parity, calculated based on available data for the last three years before the adoption of the regulation, will not achieve 75% of the average of the enlarged EU – which in case of the SR means its whole territory, with the exception of the region of Bratislava.

As projects of the modernisation and construction of the superior transport infrastructure have a supraregional importance and impact, the regional dimension and the consideration of regional disparities in the priority axes of OPT have to take into account needs of the whole society and priority interests in the transport sector. These priorities result from the conceptual and development documents approved by the Government of the SR and from commitments of the SR in relation to the Community and international treaties. At the same time the procedure and the territorial allocation of interventions itself as well is effected by the real transport situation of the territory (traffic intensities, accident rate, etc.) and investment preparedness of transport projects.

In terms of regional affiliation, the effort of MA for OPT in the project selection will be to support all the regions of SR at maximum possible extent. With the aim to support the economically most undeveloped regions, approx. 25% of EU operational programme funds resources will be allocated to the implementation of the project in Eastern Slovakia. This principle was projected into the Project pipeline (Annex 1) as a non-committal list of planned interventions.

# 5 **Priority axes**

Seven priority axes and the resulting set of activities for their fulfilment, that are directly related to the priority aims of the European Commission in the area of the modernisation and the development of infrastructure for the period of years 2007-20013 and that reflect the abovementioned development programmes for the individual transport modes, were defined for OPT.

Priority axes of OP at the level of the Cohesion Fund	Core activities within the priority axis
Priority axis 1 Railway infrastructure	Modernisation and development of railway tracks (TEN-T + other routes in accordance with the regulation for the Cohesion Fund)
Priority axis 2 Road infrastructure (TEN-T)	Construction of motorways (TEN-T)
Priority axis 3 Intermodal transport infrastructure	Construction of a network of core public intermodal transport terminals
<b>Priority axis 4</b> Infrastructure of Integrated transport systems	Construction of carrying infrastructure for performing integrated transport systems in the cities Bratislava and Košice
Priority axes of OP at the level of the ERDF	Core activities within the priority axis
Priority axis 5 Road infrastructure (expressways and first-class roads)	Construction of expressways Modernisation and construction of first-class roads
<b>Priority axis 6</b> Public railway passenger transport	Development of public railway passenger transport
Priority axis 7 Technical assistance	Support of management, monitoring, evaluation and publicity of OPT

Tab. 40: Division of priority axes of OPT 2007 – 2013

# 5.1 **Priority axes financed from the Cohesion Fund**

# 5.1.1 **Priority axis 1 – Railway infrastructure**

## Aim and focus of the priority axis

With the integration of the network of the Railways of the SR into the European transport routes within the framework of TEN-T, Slovakia also assumed the obligation to comply with international agreements and technical requirements that warrant the potential further development and the compatibility with neighbouring Railway Administrations.

The development of railway transport infrastructure in the Slovak territory can be achieved particularly through the modernisation of international corridors defined by the Pan-European Conference of Ministers of Transport in Crete in the year 1994 and confirmed in Helsinki in the year 1998. The system of so-called Cretan corridors in the territory of the SR includes the

following 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.

From the technical aspect the main weakness of the railway infrastructure is the low level of the speed limit over a track that only exceptionally achieves the standard level of developed European railways providing the establishment of competitiveness conditions giving an advantage to railway transport over less ecological transport modalities. The decisive tasks for the upgrading of railway tracks are: the modernisation of railway transport route, the modernisation of selected border crossing stations and the modernisation of information network (notably in regard to the requirements associated to the implementation of the EU regulation on Telematics Application for Freight) and railway junctions.

By the performance of activities the modernisation of railway transport infrastructure will ensure:

- 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.

The strategy of the development of the railway network (TEN-T network) in the framework of OPT fully takes into account the requirement and the recommendation of the Community for the area of the support of transport infrastructure, that prefers projects with European importance presented in the Decision of the European Parliament and the Council No 884/2004/EC (see Annex 1). Among other projects, in the TEN-T network will be implemented preferably so-called priority projects with European importance No 17 – railway route: Paris-Strasbourg-Stuttgart-Vienna-Bratislava and the priority project No 23 – railway route: Gdansk – Warsaw-Brno/Bratislava-Vienna. In compliance with the Regulation for the CF No 1084, Art. 2 (b), in the framework of this priority axis may also be supported activities outside of TEN-T networks, aimed to railway systems and their interoperability.

Priority project No 17 is situated on the area of the capital city Bratislava divided into three separate parts and will be supported from two priority axis 1 and 4 (see below Priority axis 4):

- new railway connection Bratislava Predmestie Bratislava Petržalka (Priority axis 4),
- railway connection of the M.R. Štefánik Airport, within doubling of the track in sector Bratislava Petržalka – Kittsee and in the sector Bratislava Main Station - Bratislava Nové Mesto (Priority axis 4),
- electrification of the railway track D.N.Ves Marchegg (Priority axis 1).

The final solution of priority project No. 17, including the selection of the optimal route, the operational and technical characteristics of the infrastructure as well as the procurement and planning approach, will take into account international context and agreements with relevant Member States, and results of a feasibility study.

Integral part of the Trans European Railway network construction and support of railway transport in accordance with European transport policy are provisions leading to securing interoperability and safety in railway transport, railway infrastructure, rolling stock and crew. Interoperability introduction is given in regulations and resolutions of ES – technical

specifications for interoperability (TSI). Subject and structure of TSI is defined in Directives 96/48/ES and 2001/16/ES about interoperability of high speed (i.e. conventional) railway system, whereby for SR is a priority problematic of conventional tracks.

In the area of the railway corridors modernisation and interoperability achievement Slovakia will proceed in purviews of European legislative, that is why in programming period 2007-2013 OPT activities will be focused also on support of unified security and directing system ERTMS ((ETCS, GSM-R) application.

## Justification of the priority axis

The risk of a low-quality transport infrastructure is the decrease of the volume of transit traffic, the decrease of the volume of internal traffic and passenger traffic in both the regional and longdistance transport, whereby an advantage of the current state is the sufficient density of tracks, stations and stops (high serviceability in the territory), the offer of high capacity and the good connection of the railway network of ZSR to the network of the neighbouring states.

The implementation of this priority axis will ensure more effective utilisation of the capacity of railway infrastructure, speeding-up of passenger and goods transport, increase of safety and reliability on the basis of railway transport more favourable to the environment. The improvement of the qualitative level of the railway network will also contribute to the reduction of negative environmental impacts of the transportation.

The modernisation of the corridors by the directing and securing equipment will at the same time enable to centralise the service of the railway stations and track sections what will lead to the centralisation of the dispatching control on the relevant corridor and thereby to the operating costs reducing.

The modernisation of the corridor Va (the priority project No. 23) in the current programming period (CF) is linking up with the pre-accession aid (ISPA) and the programming period 2004-2006 (CF) and it is planned in the way to meet the completion of the compact modernised track section Bratislava – Žilina in the length of approximately 200 km. Because of this reason the interventions in the projects pipeline are concentrated in the Western and Central Slovakia. By operating this track section with the speed 160 km/h the significant time saving in both passenger and freight transport will be reached, thereby the interconnection of the regions in the direction North-South and West-East will improve in terms of time as well.

The strategy of the modernisation of the railway track on the corridor Va will be started in the direction East-West on the section Košice-Kysak as well as, concerning so the traffic flows in the region of the East Slovakia and the linkage to the activities in the Priority axis 4 focused on the construction of the integrated transport systems.

For the appraisal of suitability of the investment into the modernisation of important railway routes in the territory of SR in programming period 2007-2015 and the consideration of the risks connected with spending of required financial resources, a feasibility study of V. and VI. of Pan-European railway corridor, segment 1. Nové Mesto nad Váhom – Žilina – Čadca and segment 2. Žilina – Košice – Čierna nad Tisou has been elaborated.

The study proofs the suitability and need of investment into the selected network of railway corridors in connection with ongoing or prepared modernisation of related railway lines of neighbour states. By early implementation of all of the constructions included in this project SR will provide the compatibility and incorporation into the system of European railway network.

The purpose of the set of activities in the framework of the modernisation of the railway infrastructure is particularly to create conditions for competitiveness growth of railway transport in the conditions of a liberalised market environment of the European Union and in relation to other transport modes.

## **Indicators of priority axis**

Tab. 41: Indicators of Priority axis 1

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICAT	ORS OF OUTPUT				
Core 19	km of reconstructed railroads	Length of modernised railway tracks in km	92	257	MTPT SR
	- of which TEN-T	Length of new railway tracks of the TEN-T network in km	71	236	MTPT SR
INDICAT	ORS OF RESULT				
Core 21	Time saving (railway transport)	Time saving in passenger/goods transport (min.)	0	35/295	MTPT SR
INDICAT	ORS OF IMPACT	•			
Core 13	Number of projects	Number of railway infrastructure projects	7	18	MTPT SR
	Share of railway transport on freight transport performances	Expresses the share of railway transport on total freight transport performances of SR (%)	28,7	30	MTPT SR
	Share of railway transport on passenger transport performances	Expresses the share of railway transport on total passenger transport performances of SR (%)	5,6	5,9	MTPT SR

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

# 5.1.2 Priority axis 2 – Road infrastructure (TEN-T)

## Aim and focus of priority axis

The geographic position of the SR in Europe unambiguously confirms the current importance of the position of the road network of the SR within the European transport infrastructure. For the improvement of the accessibility of the SR (see Annex 8), the access to the European road network from the SR, as well as for the purpose of mastering of transit transport it is necessary to complete the carrier motorway network within the shortest period.

The European transport system, particularly the TEN-T road network defined in the Decision of the European Parliament and the Council No 884/2004/EC, amending the Decision No 1692/96/EC on basic guidelines of the Community for the development of the Trans European transport network, has the paramount importance for the support of the European integration and the growth of the living standard of European citizens. The European Community is therefore responsible for its building and development.

The strategy of the development of the road network (TEN-T network) within OPT fully takes into account of the EC requirement for the area of the support of road infrastructure, that prefers projects of European importance presented in the Decision of the European Parliament and the Council No 884/2004/EC.

A priority of the SR in the area of the development of road infrastructure in the programme period of years 2007 - 2013 is the construction of transport infrastructure included in the TEN-T network passing through the Slovak territory, by means of the construction of new motorway

sections. These new motorway sections will replace the existing sections of the Slovak road network that ceased to fulfil the requirements for the capacity and safety.

By the terms of the regulation on the Cohesion Fund, priority project No 25 – motorway axis Gdaňsk – Brno/Bratislava – Vienna (motorway D1 and D3) will be preferred, of which a substantial part is already in use or in the realisation process.

For the elaboration of the *"Pre-investment study on the D3 Motorway Svrčinovec - Skalité"* the EC, by its Decision from 29<sup>th</sup> of December 2004, budgeted the amount of 3,8 mil. EURO. This motorway section together with consequent and for the building prepared sections on the D3 Motorway will fill after completion the function of interconnection in the way North-South in the territory of the SR as well as an interconnection with Poland and the Czech Republic.

A carrier part of the integrated transport system from the view of road infrastructure is the multimodal Corridor Va, that also constitutes a residential development first-level area located in the corridor Bratislava – Trenčín – Žilina – Poprad – Prešov – Košice (see Annex 3). Other interventions in the area of the motorway network development will be focused on continuous development of D1 Motorway in the track of Va Corridor. The development of the motorway network will follow particularly the international agreements and from them resulting obligations towards the strategic foreign investors or other EU countries.

Motorways show the highest effectiveness of the operating and residential coverage of the territory. In view of the layout and position of the Slovak Republic in relation to transit flows the multimodal Corridor Va will realize a decisive part of traffic distribution in the territory of Slovakia. Therefore it is natural that regions with location falling within this multimodal corridor will require globally-higher and time-preferred investments in comparison with the rest of Slovakia.

## Justification of priority axis

The road infrastructure has a large importance for the economic growth, the mobility of labour force and the competitiveness in the framework of the international division of transport work. It is one of key factors that significantly affect the economic development and the layout of the State. The improvement of the living standard brings a high growth of road motor transport, particularly individual automobilism, and thereby creates necessary requirements related to the modernisation and extension of the road network capacity. On main routes with international traffic we currently register a fully exhausted or exceeded capacity of roads. Therefore the fundamental solution for the removal of differences in the capacity – taking into account the existing and predicted volumes of traffic – is the development of motorways with the application of intelligent transport systems.

Three transport corridors – Corridors o IV, Va and VI – pass through the territory of the SR that are formed within the road network of the SR by motorways D2, D1 and D3. New motorway sections are designed and successively implemented particularly in the locations of the largest traffic flows/load currents in the road transport of the SR, in view of the need of the connection of the capital Bratislava and the city of Košice as the most important starting and target destinations with most important conglomerations. The network of neighbouring states in the direction of main international routes should also be included in this planning.

For the purpose of the creation of long-term conditions for the improvement of the efficiency and quality of the transport system at national and regional level and the satisfaction of growing transport requirements it is therefore justified to envisage the priority construction of the motorway network (D1 and D3)in the lines of the carrier TEN-T network.

The implementation of road projects with Trans European importance, i.e. the construction of new motorways, will improve the connection of the SR to the road network of the neighbouring

States will improve and subsequently support the accessibility of the individual Slovak regions. It will also support the flow of foreign investment, increase the interest in the tourism and globally strengthen the competitiveness of the SR.

Through continuous implementation of the wider pipeline of road projects financed from both the EU funds within the programming period 2007-2013 (Priority axis 2 and 5) and other resources (public finance, loans, E-toll, under consideration system of PPP etc.) it is expected in the year 2015 an significant enhancement of accessibility of superior road infrastructure for inhabitants (See Tab. 43; Annex 8) in comparison to the situation in 2005 (Tab.20; Annex 4).

Tab. 42: Number of inhabitants in r	relation to accessibility	from motorways and	expressways -
expected status in 2015			

Accessibility	Number of inhabitants		
	Number	%	
< 15 min.	3 667 713	68,18	
15 - 30 min.	1 045 976	19,44	
30 - 45 min.	454 826	8,45	
> 45 min.	210 941	3,92	
Total	5 379 455	100,00	

Source: SRA

## **Indicators of priority axis**

Tab. 43: Indicators of Priority axis 2

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICATO	ORS OF OUTPUT				
Core 14	km of new roads	Length of new motorways (km)	7,9	67,9	MTPT SR
Core 15	- of which TEN-T	Length of new motorways built in the TENT-T network (km)	7,9	67,9	MTPT SR
INDICATO	ORS OF RESULT	· · · · ·			
Core 20	Time saving (road transport)	Time saving in passenger/goods transport (mil. EURO)	0	30,2	MTPT SR
INDICATO	INDICATORS OF IMPACT				
Core 13	Number of the projects	Number of the road infrastructure projects	2	9	MTPT SR
	Density of the motorway network	Expresses the share of length of the motorways in operation to the area of SR (km/thousand.km <sup>2</sup> )	6,8	8,0	MTPT SR
	Number of killed persons by road accidents in road transport	Number of killed persons by road accidents in road transport	10,7	9,4	MTPT SR

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

## 5.1.3 **Priority axis 3 – Intermodal transport infrastructure**

## Aim and focus of priority axis

A priority in the area of the development of intermodal transport infrastructure from resources of the Cohesion Fund is to build the basic network of intermodal transport terminals meeting parameters of the Agreement AGTC (see Annex 5). The network of public terminals is built for the purpose of providing quality terminal services based on a non-discriminatory principle, in the connection to logistic centres for the purpose of effective provision of logistic services.

In the framework of the modernisation and completion of the intermodal transport infrastructure in the following programme period of years 2007 - 2013 the priority will be:

- a) the building of the network of public intermodal transport terminals meeting parameters laid down by the Agreement AGTC, including the quality railway and road connection to the basic transport network,
- b) the technological and information connection of intermodal transport terminals to logistic centres.

## Justification of priority axis

The increase of the international transport, particularly by heavy goods vehicles, in the last years, together with the uncompleted network of superior railway, road and intermodal transport infrastructure in the SR cause the enormous loading of roads. In accordance with principles of the sustainable mobility, beside of regulatory measures it is necessary to create conditions for the development of more ecological transport systems, one of which is undoubtedly the intermodal transport.

In accordance with the White Paper (European Transport Policy until the Year 2010) as well as the Transport Policy of the SR until the year 2015, measures for the removal of traffic congestion, particularly by the change in the division of transport work between the individual transport modes in favour of more ecological transport modes, are proposed.

The intermodal transport in certain conditions connects the systemic advantages of individual transport modes, in conditions of the SR particularly railway and road transport, whereby it helps to balance the transport system by the effective utilisation of these transport modes, while reducing the environmental load. The existence of an integrated network of interconnecting points – intermodal transport terminals in which the change of the transport mode within the logistic transport chain occurs is the basic precondition for this.

The number and location of the basic network of public intermodal transport terminals goes from:

- the requirement to cover maximum possible area of SR with terminal services. Listed number of public terminals and their location covers, with attraction perimeter of 80 km, almost total area of SR and can provide terminal services also in neighbouring EU member states – Czech republic, Poland and Hungary;

- the transport potential of intermodal transport terminals on basis of elaborated studies in 2004-2006. Throughout these studies elaboration, negotiations have passed with representatives of public administration of relevant higher territorial units, who were informed on solutions and have approved the proposed terminals localities;

- the location of transport networks of major railway lines and road communications in SR, which are in the Pan-European transport corridors, are part of TEN-T transport network and

from the location of railway lines included in AGTC Agreement. These transport communications are passing mentioned cities in one direction at least;

- the intention of deployment of industrial parks in SR and provision of their service operation, from which some are already constructed or are planned to be constructed in adjacent areas of Bratislava, Žilina, Košice and Zvolen according to the project *"Study on location of industrial parks in SR"*, elaborated in 2003. Locating the terminal in area of Zvolen in relation to other terminals emerges from geographic separation of northern and southern part of SR by mountain ranges, whose mountain passes are, mainly in winter season impassable for lorry transport.

## **Indicators of priority axis**

Tab. 44: Indicators of Priority axis 3

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICATO	ORS OF OUTPUT				
	Number of intermodal transport terminals	Number of completed intermodal transport terminals	3	7	MTPT SR
INDICATO	DRS OF RESULT				
	Increase of the quantity of goods transported by intermodal transport	Quantity of goods transported by intermodal transport (thous. tonnes/year)	650	6 200*	MTPT SR
	Number of integrated intermodal transport trains	Number of integrated intermodal transport trains per year	960	7 000*	MTPT SR
INDICATO	INDICATORS OF CONTEXT				
	Share of railway transport on the freight transport performance	Represents the share of railway transport on total performance of freight transport of SR	28,7	30	MTPT SR

NB: \* - target value, providing the realisation of mentioned number of terminals and planned development of Slovak economy.

# 5.1.4 Priority axis 4 – Infrastructure of integrated transport systems

## Aim and focus of priority axis

Strategy of priority axis is aimed mainly at integration of public railway transport, its support and preference within integrated transport systems in two largest cities of SR – Bratislava and Košice, its intercoordination with regional and supraregional (in the case of city Bratislava also cross-border) railway public passenger transport. There will be created conditions for proportion increasing of ecological public railway passenger transport as well as urban public transport by realization of priority axis with connection to priority axis 6.

Within these integrated systems railway infrastructure will be base of transport system on which will be established other transport modes (e. g. urban transport) including individual motor traffic (parking P&R). Building of systems will be supported which combine tram and railway transport (tram-train) with objective to lead railway transport closer to sources and targets of trips. Thereby will be also established assumption for involving of public suburban bus transport in integrated transport systems where bus links will supplement backbone network of railway transport and will be met the function of territorial service with linkage to backbone network.

Main areas of interventions within priority axis:

- a) connection of railway corridors on the territory of city Bratislava,
- b) support of infrastructure construction for integrated transport systems of rail passenger transport,
- c) support of passengers mobility with limited movement and limited ability of orientation,
- d) support of urban, suburban and regional railway passenger transport.

Connection of European railway corridors TEN-T on the territory of Bratislava will be part of railway axis Paris – Strasbourg – Wien – Bratislava (priority project No. 17). Common influence of railway transport and rail urban transport in the capital city, together with other two autonomous projects – connection of M. R. Štefánik airport to railway network and electrification railway section D.N.Ves – Marchegg, will basically affect possibilities of domestic and foreign passengers in whole region of Bratislava as well as in contiguous regions.

The whole project of railway corridors connection on the territory of city Bratislava is divided into 3 individual parts:

- new railway connection Bratislava Predmestie Bratislava Petržalka (Priority axis 4),
- railway connection of M. R. Štefánik airport, including double-tracking on section Bratislava Petržalka – Kittsee and on section Bratislava Main Railway Station – Bratislava Nové Mesto (Priority axis 4),
- electrification of railway track D.N.Ves Marchegg (Priority axis 1).

The final solution of integrated transport systems will respect the results of the feasibility study of priority project No 17 and the possibility of interconnection of railway infrastructure with urban rail transport.

For the improvement of present condition of public passenger transport in Bratislava region it is necessary to introduce the high-capacity, ecologic and non-collision integrated backbone system of passenger transport. It is important especially to improve the capacity and speed of interconnection of the suburban area with the centre, connection of the centre with city section Petržalka and interconnection of the M.R. Štefánik airport with the railway network.

Petržalka (Bratislava city section) presently has the population of approx. 140 thousand inhabitants and it is one of the most densely residential areas in Slovakia and even in the Central Europe. Urban mass transport in Petržalka is presently provided explicitly by the bus transport. The intention of MTPT SR as well as of the capital city municipality is to build up a new segregated backbone interconnection, which would be able to assume the decisive share of passenger transport in direction city centre – Petržalka and backwards.

The M.R. Štefánik Bratislava airport is the main and at the same time the biggest international airport in SR. The average yearly airport growth of passengers represents for the last three years more than 60%. Therefore one of the main criteria of further development of Bratislava airport is its good accessibility by railway, motorway or UMT. The airport is currently accessible via the motorway (only from the Slovak side, from the Austrian side the motorway is under construction) and UMT, which is provided by the bus transport. The intention of MTPT SR, municipality and airport is that the airport complex would include also a new railway station with the connection to the Slovak and international railway network. Thereby not only the improved access to the airport would be provided, but it would also enable the integration of railway and air transport and the market space for the airport would increase.

Activities of OPT within this priority axis will be complementary updated by activities of Operational Programme Region of Bratislava. These will be especially aimed at operational providing of integrated transport system in capital city Bratislava and contiguous areas as e.g.
uniform tariff information system, information system of urban public transport, preference of vehicles of urban public transport etc.

Within activities of priority axis will be also established assumptions for partly realization of project for integrated transport system of city Košice (ITSK) which is concurrently supported by Regional operational programme. The objective of project is to connect rail system of ZSR and Košice Public Transit in order to direct performance of public passenger transport on the territory of city Košice and in region Košice with impact on region Prešov. On basis of existing gauge which is same for railway and tram tracks, established ITS will be used advantages of both systems more effectively. Passengers will be able use ITS for transport in city Košice as well as in suburban and regional transport with service till 100 km.

Support of regional and suburban railway transport will be provided by revitalization, redislocation and construction of new stops for connection of railway transport to integrated transport systems and service providing (e. g. new industrial parks, regions etc.).

In accordance with approved Transport policy of SR until 2015, modernised transport means of passenger railway transport and complex of other prepared measures will enable provide mobility of passengers with limited movement and limited ability of orientation in large extent as by now. Objective is elimination of barriers to maximum extent which this population group foils full mobility and equal access of these persons to services provided by railway transport.

The operational programme through the Priority axis 7 – Technical assistance also creates the presumptions for the actualisation or elaboration of sustainable strategy of public passenger transport development in city agglomerations over 100 thousand inhabitants.

### Justification of priority axis

One of the basic elements which provide sustainable development of regions is quality public passenger transport, solved by modern integrated transport systems. These systems should mainly make public passenger transport more attractive, minimize negative impacts which brings growth of individual motor transport and to offer citizens of town and near region "sustainable" alternative in transport (mobility) of passengers.

Justification of integrated transport systems realisation in the conditions of Bratislava and Košice goes out from the intention to build up the back bone system of passenger transport on basis of rail transport – with interconnection and subsequent service of urban and suburban areas by railway transport. Bratislava and Košice are the only cities in SR, which except the bus and trolleybus transport use also the tram transport for the passenger transport within the UMT system. These two cities (city agglomerations over 100 thousand inhabitants) are the two biggest and most important residential, economic and transport-gravitation centres in SR. So the realisation of the projects in these centres will have an impact on the mobility of the highest number of inhabitants.

The intention of the realisation of integrated transport systems goes out from the long-term strategy of solving the public passenger transport in relevant region in area of Bratislava and Košice.

Establishing of integrated transport system in conditions of Bratislava and Košice region will bring more effective utilisation of existing transport modes (especially rail transport), whereas the advantages will be felt by the passengers as well as by the operators.

By Decision No 884/2004/EC was identified project which has crucial importance for Community as whole – priority project No. 17 in the area of railway infrastructure. Interest together with need of system solution in urban, suburban, regional and international passenger transport within this project declared representatives of city Bratislava, MTPT and ZSR on 2 April 2007 by signature of *"Memorandum on common approach in development, realization and* 

utilization of railway infrastructure on territory of SR capital city Bratislava constructed within priority project TEN-T 17 for integration of urban rail and railway transport".

For the elaboration of the *"Study for railway TEN-T corridor interconnection with the airport and railway network in city Bratislava"* the EC, by its decision from 26.12.2005, budgeted the amount of 10,57 mil. EURO. Project consists of studies needed for background documents about open competition for construction work of three project components – interconnection of main railway stations in Bratislava; direct connection of Bratislava airport on existing railway network and electrification of railway track in section D.N.Ves – Marchegg. Deadline for finishing the study implementation is planned until the end of 2007.

Project ITSK implementation will take up programming period 2004-2006 in which a *"Feasibility study on the integrated passenger transport in Košice region"* has been elaborated, financed from technical assistance of Operational programme - Basic infrastructure. The aim of the study was to appraise the system of public passenger transport in Košice and adjacent regions and to propose an optimum solution for provision of sustainable mobility of population in relevant area. The results of the study suggest the implementation of ITSK through the interconnection of urban rail transport and railway transport as a backbone transport system.

Agreement on cooperation between MTPT SR, region Košice, city Košice and ZSR on realization of integrated transport system of rail passenger transport on territory of city Košice was signed on 6. December 2006. Agreement and study are results of workgroup for tasks and objectives achievement of this project. Workgroup is composed of representatives of city Košice, Košice region, MTPT SR, ZSR and ZSSK.

In compliance with above mentioned agreement is project ITSK divided into two operational programmes – OPT and Regional operational programme (ROP). OPT is aimed at construction and reconstruction of railway tracks in administration of ZSR and ROP is designed for construction or reconstruction of tram tracks in administration of city Košice and related objects.

Project ITSK in its target status will provide more effective territorial service of region Košice with direct attachment to region Prešov, especially city Prešov.

### **Indicators of priority axis**

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICATO	ORS OF OUTPUT				
Core 17	km of new railroads	Length of new railway tracks (km)	0	39	MTPT SR
Core 18	- of which TEN-T	N-T Length of new railway tracks of the TEN-T 0 network (km)		18	MTPT SR
Core 19	km of modernised railroads	Length of modernised railway tracks (km)	0	25	MTPT SR
	- of which TEN-T	Length of modernised railway tracks of the TEN-T network (km)	0	25	MTPT SR
INDICATO	ORS OF RESULT				
Core 21	Time saving (railway transport)	Time saving in passenger transport (min.)	0	20	MTPT SR
	Increase in the number of passengers in suburban, regional and interregional	Increase in the number of passengers in suburban, regional	100	120	ZSSK, Bratislava and Košice

Tab. 45: Indicators of priority axis 4

	transport	and interregional transport (%)			municipalities
INDICAT	ORS OF IMPACT				
Core 13	Number of projects	Number of railway infrastructure projects	0	7	MTPT SR
	Share of railway transport on passenger transport performances	Expresses the share of railway transport on total passenger transport performance of SR (%)	5,6	5,9	MTPT SR

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

## 5.2 **Priority axes financed from the ERDF**

### **5.2.1** Priority axis 5 – Road infrastructure (expressways and first-class roads)

### Aim and focus of priority axis

The motorway network represents a fast and quality interconnection of urban units, but it serves and covers only a part of the territory or traffic requirements. Therefore, also in this programme period, the programme of the development of road transport infrastructure within the OPT will be completed by the construction of the expressway network for the purpose of the improvement of the accessibility of regions (see Annex 8).

The proportional development of motorways and expressways in the context of envisaged international routes in relation to the implemented cross-border connections with the neighbouring States will lead to the integration of the Slovak road network into the single European transport system.

In addition to the construction of motorways and expressways that are the basic solution for the removal of differences in the road capacity in terms of existing and predicted volumes of traffic, attention will be paid to the modernisation of the inferior road network – first-class roads that provide a more even coverage of exposed routes.

Beside of motorways and expressways, first-class roads are a carrier component continuously ensuring the interconnection of regional settlements as well as the interconnection of border crossings, whereby they have special importance for the international and national transport.

The characteristics of first-class roads shows that by their technical parameters they should ensure fast and safe transport, particularly transit transport, and by-pass cities and municipalities to minimise the negative impacts of transport. Consequently another area will be the removal of low technical parameters of the road network, the removal of black spots and collision points, the improvement of parameters and partially the construction of new routes, which will significantly contribute to the improvement of road safety.

Implementation of intelligent transport systems is other solution for dealing with growing transport volumes, raising of capacity, smoothness and road safety on existing road infrastructure – especially on the first-class roads. Optimalization of traffic management using new state-of-the-art directing and information technologies will increase knowing of road users about the status of traffic. This will enable to avoid road accidents, congestions, increased fuel consumption, increased operation costs and higher level of emissions. Saving the costs necessary for construction of new roads and bypasses in particular within the towns will be other contribution of intelligent transport systems implementation.

Main areas of interventions within the priority axis:

- a) construction of expressways
- b) construction and modernization of first-class roads
- c) intelligent transport systems

### Justification of priority axis

The road infrastructure has a large importance for the economic growth, the mobility of labour force as well as for the competitiveness in the framework of the international division of transport work. It is one of key factors that considerably influence the economic development and the layout of the country.

The completion of motorways by a network of expressways will ensure the quality road connection between the individual regions as well as regional settlements with even coverage of the Slovak territory by roads with unlimited access or by roads with superior driving comfort. In view of the location and transport comfort offered by expressways it is also justified to envisage their construction, first of all in corridors of cities with international traffic ("E" roads) or in corridors of the supplementary TEN-T network.

When considering requirements for the construction of first-class roads it is necessary to take into account the influence of completed motorway or expressway sections or the planned period of their construction, and on this basis to assess the justification and effectiveness of such investment for transport that has remained or will remain on first-class roads. Other situation exists with those first-class roads, in the corridors of which no superior transport infrastructure is planned in the future or envisaged at all, and hence there is no assumption of the redistribution of transport.

The highest concentration of traffic flows in the road transport occurs in the network with highest offer (supply) of transport conditions in terms of the quality of territorial connection and technical parameters of roads. These are roads of the international road network and national first-class roads connecting regional and district centres of the Slovak territory.

On the basis of the above facts it is justified to envisage a network of expressways on the routes of TEN-T network corridors, because this network is compatible with the most important transport corridors of the SR, whereby the modernisation and the development of first-class roads must not be neglected.

Through realisation of the wider pipeline of road projects financed from the EU funds within the programming period 2007-2013 (Priority axis 2 and 5) as well as other resources (public finance, loans, E-toll, system of PPP etc.) there is expected in the year 2015 significant improvement of accessibility of superior road infrastructure (See Tab. 47; Annex 8) in comparison to the situation in 2005 (Tab.20; Annex 4).

Accessibility	Number of	inhabitants
Accessionity	Number	%
< 15 min.	3 667 713	68,18
15 – 30 min.	1 045 976	19,44
30 – 45 min.	454 826	8,45
> 45 min.	210 941	3,92
Total	5 379 455	100,00

Tab. 46: Number of inhabitants in relation to accessibility from motorways and expressways – expected status in 2015

Source: SRA

### **Indicators of priority axis**

Tab. 47: Indicators of Priority axis 5

Code	Name of indicator	Description and unit of indicator	Initial value	Target value*	Source
INDICATO	ORS OF OUTPUT				
Core 14	km of new roads	Length of new expressways and first- class roads (km)	16,3	126,1	MTPT SR
Core 15	- of which TEN-T	Length of new expressways in the TEN-T network (km)	0	15,8	MTPT SR
Core 16	km of reconstructed roads	Length of modernised first-class roads (km)	0	45,3	MTPT SR
	Number of removed collision points on first-class roads	Number of removed collision points on first-class roads (black spots, modernised intersections, etc.)	0	50	MTPT SR
INDICATO	ORS OF RESULT				
Core 20	Time saving (road transport – expressways)	Time saving in passenger/goods transport (mil. EUR)	0	42,2	MTPT SR
INDICATO	ORS OF IMPACT				
Core 13	Number of projects	Number of road infrastructure projects (expressways and first- class roads)	2	35	MTPT SR
	Density of expressways network	Density of expressways network in operation to the area of SR (km/thousand.km <sup>2</sup> )	2,2	3,5	MTPT SR
	Number of killed persons by road accidents in road transport	Number of killed persons by road accidents in road transport	10,7	9,4	MTPT SR

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

## 5.2.2 Priority axis 6 – Public railway passenger transport

### Aim and focus of priority axis

The public railway passenger transport is an important socio-economic component of the environment in which it operates. It has the character of a service to the population (basic transport serviceability), the core tasks of which consists in the satisfaction of its everyday requirements for transport to workplace, schools, public institutions and offices, health establishments, as well as the satisfaction of other personal and social needs.

In the last years particularly suburban and regional railway passenger transport were significantly neglected, especially from the view of the modernisation of mobile means and the application of information and communication technologies. This approach is manifested by the low quality of mobile means, the stagnation of service supply, inadequate conditions enabling the mobility of persons with restricted mobility and orientation capacity, and by the inadequate

marketing approach to the travelling public, which caused and still causes the permanent transfer of passengers to other transport modes – particularly to individual automobile transport and to a lower decree to the public bus transport.

This permanent trend negatively affects the economy of urban, suburban, regional and interregional railway passenger transport, what disables the creation of favourable conditions and possibilities of its full involvement into the integrated transport systems in single cities agglomerations, which are forming the essential development centres of Slovakia. The operation of railway passenger transport realized by means of renewed mobile means will be evenly scattered in the area of the Slovak republic to provide mobility of population in suburban, regional and interregional transport.

Main interventions areas within the priority axis:

- a) the reconstruction of railway mobile means for suburban, regional and interregional transport on electrified tracks,
- b) the reconstruction of railway mobile means for suburban, regional and interregional transport on non-electrified tracks,
- c) removing of the mobility barriers of mobility and orientation handicapped people,
- d) the support of regional and suburban railway passenger transport.

Improvement of the structure and technical condition of ZSSK vehicle fleet is along with the modernisation of railway corridors and necessary organisational, operational and commercial measures, is the essential condition to stop and gradual change of trend of passenger transport decrease on railways and it is a real presumption for improvement of services offer quality in railway passenger suburban, regional and interregional transport, its ecologisation and at last, for increase of passengers using public railway transport.

### Justification of priority axis

The modernisation and the development of public railway passenger transport will create basic conditions for the stoppage of the continuous growth of individual motorism in the provision of basic traffic service. The stoppage of the decrease of the transfer of transport performances from public passenger transport to the individual motorism, particularly in the suburban and regional transport, will enable to gradually eliminate all negative phenomena related to the need of the removal of traffic congestion on the road network in the neighbourhood of regional and supraregional centres and on the road network in urban conglomerations, with a negative impacts of the transport to the environment and the quality of life in the cities.

The defining of mobile assets renewal went out of a marketing survey realised by ŽSR and ZSSK and from studies elaborated by international consulting companies within EU and UIC. Renewed mobile assets will be deployed equally on the entire territory of SR - in the western, central and eastern Slovakia. The intention of ZSSK presumes that Trnava, Žilina and Košice will be utilised as the home stations, whereby the renewed mobile assets will be used on the lines, which are economically viable in relation with daily transport requirements of community because of movement to work, schools, medical institutions etc.

The modernisation of mobile means of the regional and interregional railway passenger transport, that was neglected for a long period, will enable in synergy with the modernisation of railway tracks ensured within the priority axis No 1 to offer to the travelling public means of transportation meeting basic qualitative parameters, supporting the effective provision of basic traffic service in selected regional centres, and the interregional transport supporting the development in the affected regions.

This approach will enable to successively integrate the urban, suburban, regional and interregional railway passenger transport into the planned integrated transport systems and in accordance with the approved conception of bus and railway passenger transport (adopted by the Resolution of the Government of the SR No 377/2005) create conditions for the effective utilisation of public resources allocated in the state budget and in the budgets of self-governing regions for the support of public passenger transport.

The benefits from renewal of railway mobile means in passenger transport will be mainly:

- reduction of fuel consumption and reduction of energetic consumption (diesel, electricity, lubricants etc.),
- reduction of reparation and maintenance costs,
- increase of travelling culture,
- reduction of negative environmental and health effects of the operation (noise, emissions, vibrations etc.),
- improvement of work conditions of travelling personnel (safety effect).

### **Indicators of priority axis**

Tab. 48: Indicators of Priority axis 6

Code	Name of indicator	Description and unit of indicator	Initial value	Target value	Source		
OUTPUT I	INDICATORS						
	Number of driving vehicles and compact units of electric traction and independent traction	Number of obtained compact units and driving vehicles of electric and independent traction put into operation	0	20	ZSSK		
	Number of compact units and driving vehicles for sub- urban transport	Number of compact units and driving vehicles for sub-urban transport	0	21	ZSSK		
RESULT I	RESULT INDICATORS						
	Increase in number of passengers transported	Increase in number of passengers transported in suburban, regional and inter-regional transport in %	100	120	ZSSK		

NB: \* - It is an estimated value of indicator. The real target value will be known upon the completion of the implementation of OPT.

## 5.2.3 Priority axis 7 – Technical assistance

### Aim and focus of priority axis

The aim of this priority axis is to ensure the implementation of OPT and to support positions and functions of the Managing Authority, Paying Unit and control and audit teams in accordance with requirements put on management, implementation, control, monitoring and evaluation of the Operational Programme and on administrative structures responsible for the implementation of the Operational Programme, provision of the support for the preparation of projects, as well as on the provision of information to the public, promotion and exchange of experiences.

The technical assistance is aimed to the support of effective management of the Operational Programme, its promotion, and to the support of the evaluation of priority axes and selected projects. Further it will be used for activities related to management, monitoring control, analysis and provision of information including promotion, evaluation and exchange of experiences.

The above activities will be performed by means of the support of activities aimed particularly to:

- updating and where necessary further conceptual development of sectoral strategies underpinning the development of transport infrastructure (see section 7.2.5),
- provision for technical aspects of programming, project development, management, implementation, evaluation and monitoring, control and audit (technical assurance and equipment, opinions, studies, analyses, advisory services, software support, audit, control, etc.),
- provision for wages of employees who participate in programming, management, implementation, evaluation, monitoring, control and audit of OPT,
- IT monitoring systems,
- information activities, promotion,
- preparation of the following programme period.

### Justification of priority axis

The technical assistance is a special priority axis of OPT aimed to the support of the implementation of the other priority axes and activities indicated in the operational programme. The effective implementation of the operational programme depends on the ability of authorities and bodies involved in the implementation to perform their functions in accordance with obligations arising from the EC regulations.

## **6** Horizontal priorities

More detailed information concerning coordination and application of horizontal priorities are mentioned in Chapters 4.3.5 and 5.3.3 in the NSRF SR.

## 6.1 Sustainable development

The sustainable development can be understood as a development that maintains for the existing and future generations the possibility of the satisfaction of their necessaries, without decreasing the diversity of the nature and while conserving the natural functions of the ecosystems.

The aim of this horizontal priority is to ensure that each activity supported by interventions from the EU funds will support the sustainable development in all its components and hence supported the growth of the environmental, economic and social sustainability. The implementation of this horizontal priority will be based on the application of the condition of the sustainability to OPT as well.

The Ministry of Transport in accordance with the principles of the sustainable development has set in the framework of the transport policy of the SR the global aim which is the sustainable mobility. This aim is also reflected in the strategy of OPT.

The sustainable mobility is defined as a long-term satisfaction of increasing requirements of the society (goods and passenger transport) in required time and quality, with maximum effectiveness, while continuously decreasing the negative impacts of the transport on the environment and health of the population. The aim – sustainable development of transportation or sustainable mobility – becomes even more important in the context of existing problems in transportation such as unbalanced development of the individual transport modes, traffic congestion – bottlenecks in transport infrastructure, harmful effects on the environment and public health, serious consequences of traffic accidents, etc..

## 6.2 Equality of opportunities

The support of essential rights, non-discrimination and equality of opportunities is one of the basic principles applied in the EU. The equality of opportunities is a part of pillars of European Employment Strategy and European framework strategy for non-discrimination and equal opportunities for all, in sense of which the horizontal priority "Equality of opportunities" will support the beating of discrimination on basis of gender, race, ethnic origin, religion, health handicap, age or sexual orientation.

The horizontal priority will be also applied by the form of accessibility of physical environment, transport and public services for the mobility and orientation handicapped inhabitants. The strategy of the development of transport infrastructure and the support of the development of public railway passenger transport do not affect the principles of equal treatment, whereby results of the implementation of OPT projects are intended for the general public and have a non-discriminatory character. The activities in the implementation of projects will be performed in compliance with the EC legislation in the area of the observance of rules of the equality of opportunities.

## 6.3 Information society

The aim of this horizontal priority is to ensure the support of the introduction and utilisation of the ICT means and thereby support the dynamic development of information society in all priority axes.



This aim can be projected and achieved particularly through the development and the stimulation of information and communication technologies in the transport sector such as components of intelligent transport systems. Accordingly the information and communication technologies with traffic engineering can be applied to transport systems and modes with the aim to increase their quality, reliability, safety, capacity and accessibility for the public.

## 7 Compliance of the strategy with policies, documents and aims

The strategic documents of the European Union and of the Slovak Republic provide the basic framework for the strategy of OPT on the achievement of global aim by the year 2015 – support of sustainable mobility through the development of transport infrastructure and the development of public railway passenger transport. Particularly they are represented by strategic documents such as the EC strategic guidelines, EU and Slovak transport policies, Lisbon Strategy for Slovakia, National Reform Programme 2006 – 2008, National Strategy of the Sustainable Development of the SR, Conception of Territorial Development of Slovakia 2001, etc..

The OPT is an integrating strategic document combining the relevant components of the individual autonomous but coherent strategies of the EU, state, sector and regions by means of the co-financing from the CF and the Structural Funds for the purpose of the achievement of the largest possible synergy and effectiveness in the fulfilment of the global aim of OPT until the year 2015. This approach of the elaboration of the strategy means that the OPT strategy is in compliance with all relevant policies and strategic documents of the EU and the SR.

## 7.1 Compliance with EU strategic documents and policies

### 7.1.1 EC strategic guidelines

One of conditions for the achievement of the economic growth and the creation of job opportunities is the development of required transport infrastructure as a key factor affecting the economic and social attractiveness of regions. Investments in transport infrastructure will increase the accessibility, support the growth and strengthen the convergence of backward regions with the rest of the EU.

The individual priority axes of OPT are fully compliant with the EC Strategic Guideline to aimed to the enforcement of the harmonic, balanced and sustainable development of the Community (Art. 25 of the General Regulation). In accordance with integrated guidelines for growth and jobs of the renewed Lisbon agenda, the programmes supported by cohesion policy should seek to target resources on the following three priorities:

- 1. Improving the attractiveness of Member States, regions and cities by improving accessibility, ensuring adequate quality and level of services, and preserving the environmental;
- 2. Encouraging innovation, entrepreneurship and the growth of the knowledge economy by research and innovation capacities, including new information and communication technologies, and
- 3. Creating more and better jobs by attracting more people into employment or entrepreneurial activity, improving adaptability of workers and enterprises and increasing investment in human capital.

Operational Programme Transport	E	EU priorities			
Operational Programme Transport	1.	2.	3.		
Priority axis 1 – Railway infrastructure	Х				
Priority axis 2 – Road infrastructure (TEN-T)	Х				
Priority axis 3 – Intermodal transport infrastructure	Х		Х		
Priority axis 4 – Integrated transport systems infrastructure	Х				
Priority axis 5 – Road infrastructure (expressways and first-class roads)	Х				
Priority axis 6 – Public railway passenger transport	Х		Х		
Priority axis 7 – Technical assistance					

All priority axes of the OPT reflect the first priority, whereby the priority axes 3 and 5 also reflect the third priority (see the Table 49).

## 7.1.2 Lisbon and Göteborg Strategies

### Lisbon Strategy

The formulation of the Lisbon Strategy was the result of the unfavourable economic development in the EU in the end of the past decade in comparison with other important economic regions of the world. The Lisbon Strategy set the aim to transform the European Union by the year 2010 to the "most dynamic and competitive knowledge-oriented economy".

In the framework of the mid-term evaluation of the implementation of the Lisbon Strategy it was stated that had not been effectively implemented. Therefore, in the March Summit 2005, so-called revised Lisbon Strategy with a set of a smaller number of clearly defined priorities relevant for the achievement of the successful and dynamic EU economy was adopted.

The Slovak Republic supported the redefinition of the Lisbon Strategy discussed in the spring summit of the European Council in 2005 in the document "Position of the Slovak Republic to the Mid-Term Evaluation of the Lisbon Strategy for the Spring Meeting of the European Council".

With the aim to join the Lisbon Strategy and achieve the improvement of the competitiveness of Slovakia through the mobilisation of innovations in the national economy and the development of scientific and educational activities the Government of the SR approved the Strategy of the Development of the Competitiveness of Slovakia until the Year 2010 (Lisbon Strategy for Slovakia).

The main objective of the Strategy is clear: to ensure that Slovakia achieves as soon as possible the living standard of the most developed EU countries. This objective can be achieved only through a fast and long-term economic growth. In market economy the Government may support it only by the creation of favourable conditions for the growth of the economic competitiveness of the country.

The sound business environment that motivates people to enterprise is one of key instruments for the achievement of the long-term competitiveness of the country. Main priorities in the area of business environment also include a quality physical infrastructure and services in network industries. From the view of the transport sector it is the speeding up of the modernisation and development of a quality transport infrastructure in the whole national territory.

#### Göteborg Strategy

The draft strategy of the sustainable development: *Sustainable Europe for a Better World* (submitted to the Council of Europe in June 2001 in Göteborg) is oriented to priority problems – climatic changes, negative influences on the health of population, utilisation of natural resources, population dynamics and environmental pollution, whereby transport is regarded as one of the dominant sectors.

Therefore, in the framework of the transport policy of the SR, the Ministry of Transport set as global aim the sustainable mobility. It means a long-term satisfaction of continuously growing traffic needs of the society (goods and passenger transport) in required time and quantity, with maximum effectiveness, while decreasing negative effects of the transport on the environment and health of population. The sustainable transport policy should solve the increasing volume of traffic and the levels of traffic congestion, noise and pollution, and support the utilisation of environmentally friendly transport modes as well as the full internalisation of social and environmental costs. Measures are required for the separation of the growth of traffic and growth

of GDP, particularly by the transfer of performances from road to railway, waterborne and public passenger transport.

This global aims that is coherent with the aim of OPT, should be achieved through specific aims of the Slovak transport policy such as the modernisation and development of transport infrastructure and among others the reduction of negative environmental impacts of transport.

## 7.1.3 European transport policy

OPT is elaborated in compliance with European transport policy, especially with the long-term strategy of Community presented in the *White paper – European transport policy for 2010: time to decide* (COM 2001 370 final). The impulse for creation of common transport policy was the need to solve the unbalance between individual transport modes, mainly the problems of road transport growth and related accompanying effects as accident rate, congestions, negative environmental and health effects. Along the description of existing condition in individual transport modes within the European transport system, the document states specific measures for fulfilment of aims set, whereby among the most important measures are: revitalisation of railways, building up the Trans-European transport network, improvement of road traffic safety, removing of bottle necks, development of integrated and intermodal transport systems.

## 7.1.4 EC legislation in the area of cohesion policy

The OPT strategy is proposed in accordance with the EC legislation in the area of cohesion policy. The OPT activities reflect the Council Regulation (EC) No 1084/2006, establishing the Cohesion Fund and repealing the Regulation (EC) No 1164/94, on the ground of channelling the support to the Trans European networks with regard to projects of European importance (stated in the Decision of the European Parliament and the Council No 884/2004/EC). The Fund may intervene also in areas relating to the sustainable development in the areas of the transport sector, railway transport, intermodal transport systems, public and suburban transport.

The strategy is further based on the Regulation of the EP and the Council (EC) No 1080/2006 on the ERDF and repealing the Regulation (EC) No 1783/1999, where under the aim of Convergence investments in transport include Trans European networks together with other connections to the TEN-T network, as well as measures for the improvement of the access to services in passenger and goods transport and of their quality, for the achievement of more balanced utilisation of the individual transport modes, for the support of systems using different transport modes and for the reduction of environmental impacts.

## 7.1.5 EC legislation in the area of competition rules

The OPT was prepared and will be implemented in accordance with competition rules – Council Regulation (EC) No 1/2003 on the application of the competition rules laid down in Articles 81 and 82 of the EC Treaty as well as in accordance with state aid rules (Articles 88 and 89 of the EC Treaty).

The Slovak Republic as an EU Member State has fully approximated its national legislation with the EC regulations in the area of state aid, that is currently regulated by the Act No 231/2001 Coll. On State Aid, in the wording of later regulations.

The supervision of the area of the protection and support of competition in the SR is executed through the Antimonopoly Office of the SR as a central body of state administration.

## 7.1.6 EC legislation in the area of public procurement

Main principles of public procurement rules result from the Treaty on the establishment of the European Community (EC Treaty) and from EC directives for the area of public procurement. They include the principles of transparency, equal treatment, non-discrimination, mutual recognition and proportionality at the observance of the rules on the effective utilisation of financial resources.

The issues of public procurement and award of public orders are provided for by the approximated legislation through the Act No 25/2006 Coll. On Public Procurement and on amendments to certain acts, that introduces a public procurement system taking into account commitments of the SR as a member of the European Union. This Act regulated the public procurement of orders for the delivery of goods, orders for the execution of construction works, orders for services, concessions for construction works, competition of tenders and administration in public procurement.

By the implementation of this Act the increase of transparency of the public procurement process, the increase and subsequent development of competition and of general business environment is achieved. It also contributes to a more effective control of the utilisation of public resources and to the restriction of potential corruption.

The central body of state administration for the area of public procurement is the Public Procurement Office.

Activities and operations to which the Public Procurement Act does not apply are implemented on the basis of the Commercial Code through the public tender.

# 7.1.7 EC legislation in the area of rules of the protection and amelioration of the environment

The OPT was subjected to the strategic environmental assessment within the meaning of the Act No 24/2006 Coll. On Environmental Impact Assessment and on amendments to certain acts, that is compliant with the EU Directive No 2001/42/EC on the assessment of environmental impacts of certain plans and programmes and is applied in the assessment of strategic documents.

The proposed activities within the PT will not have significant negative impacts on the protected natural environment and landscape and it is assumed that they will positively influence the environment of urbanised areas of Slovakia.

The preparation and the selection of projects in the process of implementation of the Operational Programme will be executed with regard to the observance of the principles of the protection and amelioration of the environment within the meaning of the Act No 543/2002 on Protection of Nature and Landscape.

The Priority Axes 1, 3, 4 and 6 support the EC legislation in given area by the promotion of ecological transport modes.

# 7.1.8 EC legislation in the area of rules of the equality of opportunities, gender equality and non-discrimination

Activities in the implementation of projects will be carried out in accordance with the EC legislation in the area of the observance of rules of the equality of opportunities, gender equality and non-discrimination.

In the Slovak Republic the fundamental human rights and freedoms are guaranteed by the Constitution of the SR. At the same time the Slovak Republic is bound by international

documents, pursuing the implementation of the equality of opportunities in its legislation and practice. They include agreements of the International Labour Organisation (ILO), European Social Charter (ESC), Supplementary Protocol to the ESC and others. In the context of the implementation of the acquis communautaire a number of provisions strengthening the principle of equal treatment of women and men were integrated in the Slovak law and a number of provisions that were not compliant with the principle of the equality of opportunities were removed from the Slovak legislation.

## 7.2 Compliance with strategic documents and policies of the SR

## 7.2.1 NSRF and OP

The task of the Strategy of the NSRF 2007 – 2013 is to achieve the strategic aim that is defined as a considerable increase of the competitiveness and performance of regions and Slovak economy, while observing the sustainable development. One of measurable indicators of the strategic aim is formulated as the achievement of GDP per capita in purchasing power parity of representing more than 60% of the level of the EU15. The Strategy of the NSRF is implemented through a hierarchic system of strategic and specific priorities and consists of three strategic priorities: 1. Infrastructure and regional accessibility, 2. Innovation, informatisation and knowledge-oriented economy, and 3. Human resources and education.

Through the implementation of the Strategy of OPT the strategic priority 1 in the NSRF will be supported. The synergic effect of measures within the NSRF as well as other operational programmes will be achieved in OPT through the development and modernisation of transport infrastructure with supraregional importance that always has a direct or indirect influence on the socio-economic development of regions, on the removal of disparities and on the improvement of the competitiveness of the SR.

### **Complementarity with other OP**

By RG SR No 832/2006 the amended NSRF SR for the years 2007-2013 was approved, by which the structure of programme documents was approved as well. Besides the OPT, the Regional Operational Programme, Operational Programme Environment and the Operational Programme Region of Bratislava also have relation to transport (see Table 50).

**The Regional Operational Programme (ROP)** is focusing on the modernisation and building of regional communications providing transport service of regions (second- and third-class roads) as well as the reconstruction of local communications. Within the planned activities of the operational programme, presumptions are created for the support of public passenger transport through the implementation of a part of the Košice integrated transport project, which is simultaneously supported by the OPT.

**The Operational Programme Environment (OP E)** is focusing on the ecologisation of public passenger transport, mainly in the areas requiring special air protection and that through following activities – by utilisation of CNG gas in the buses of public passenger transport (urban and suburban); replacement of the buses of urban public transport with trolleybuses, trams, duobuses and by building of the CNG filling stations.

**The Operational Programme Region of Bratislava** is aimed at the support of regional and urban transport. The aim of activities group of the operational programme is to raise the share of mass transport on the transport work division with emphasis on utilisation of environmentally clean vehicles.

The implementation of complementary activities will be provided by a workgroup, formed by the representatives of OPT, ROP, OP E and Operational Programme Region of Bratislava. The

aim of workgroup activity will be to provide effective implementation of mutually complementing activities, proposed within the framework of single operational programmes.

Activities aimed at cross-border cooperation in the field of transport (e.g. cross-border roads, cycling routes, information systems for cross-border public transport etc.) will be subject to support from cross-border operational programmes (Slovakia-Poland, Slovak-Czech Republic, Slovakia-Austria, Slovakia-Hungary).

The Managing Authority for the OPT will consider the possibility of participation in initiative Regions for Economic Change.

Programme	Activity	Supported territory* NUTS 2
	Motorways	BA, ZS, SS, VS
Operational Programme Transport	Integrated transport systems infrastructure	BA, ZS, SS, VS
	Expressways 1 <sup>st</sup> class roads	ZS, SS, VS ZS, SS, VS
Operational Programme Environment	Ecologisation of public passenger transport	ZS, SS, VS
Regional Operational Programme	Integrated transport systems infrastructure, Tram rails Second and third-class roads	ZS, SS, VS
Operational Programme Region of Bratislava	Regional and urban transport	ВА
Rural Development Program	Local roads	BA, ZS, SS, VS

Tab. 50: Complementarity of operational programmes in relation to transport

\* See Figure 1 – Territorial systematisation of the SR

#### Interconnection of the big projects implementation with the services of employment

In relation to the implementation of big infrastructure projects (by terms of general regulation) and with the aim to strengthen the mutual interconnection between operational programmes financed from ESF and ERDF on the behalf of lowering the unemployment in regions, the Ministry of Labour, Social Affairs and Family of the Slovak Republic (MLSAF SR) through the will provide the education of potential employees with required skills in professions, in which there is a shortage on the labour market for the needs of implementation of these projects. Mentioned trainings will be financed from the ESF.

The Managing Authority for OPT will provide the information on the opportunity for the applicants to employ such trained workers. Information on this possibility will be mentioned in the contract on the funds contribution provision.

With the aim to allow the employment bureaus to provide training of required employees with sufficient time advance, the mentioned managing authorities will be sending to MLSAF SR the required information on projects, of which realisation is presumed in the next year. MLSAF SR will make provision for these information in the preparation of the employment strategy for the next year.

## 7.2.2 Strategy of competitiveness of Slovakia until the year 2010 / National Reform Programme

The strategy of competitiveness of Slovakia until the year 2010, so-called Lisbon Strategy for Slovakia, is based on the basic philosophy of the EU Lisbon Strategy which is the development of economic competitiveness. The strategy and the focus of OPT are fully compliant with priority axes of the development of the Strategy of the Development of Competitiveness of the SR until the Year 2010, one of which is the priority area Business Environment that under the priority Quality Physical Infrastructure and Services in Network Industries covers among others the issues of the modernisation and development of transport infrastructure.

The basic aims of the Lisbon Strategy for Slovakia for the period of years 2007 - 2013 are reflected in aims and focus of OPT that is, using financial resources from the EU funds (CF and ERDF) during the programme period of years 2007 - 2013, aimed particularly to the modernisation and development of transport infrastructure in the territory of the SR, as well as to the support of the development of public railway passenger transport.

The National Reform Programme of the SR for the years 2006 - 2008 ties up with the strategy of the development of competitiveness and concretises its visions, goals and policies. The Programme support the improvement of transport accessibility of the individual Slovak regions through the building of transport infrastructure for the entry of foreign investors in the Slovak economy and is also a prerequisite for the reduction of disparities in the development of regions. Quality transport networks will positively influence the mobility of labour force and related increase of employment. There is no doubt that the extension of the internal market requires the availability of an infrastructure integrating the European economies and therefore the completion of the interconnection of the countries is an indisputable priority.

## 7.2.3 National strategy of sustainable development

The national strategy of sustainable development of the SR is another of national strategic documents on which the NSRF SR is based and from which it takes relevant activities and aims serving to the most effective and efficient achievement of the vision and global aim of the NSRF SR.

In the framework of the Strategy of OPT, the MTPT SR in accordance with principles of the sustainable development set a global aim which is the support of the achievement of sustainable mobility through the development of transport infrastructure and the support of the development of public railway passenger transport.

## 7.2.4 Conception of territorial development of the SR

The condition of the long-term development of the SR is the maintenance of the sound environment and attractive territory of the SR. This statement is documented among other by legislative conditions of the SR. The said aspects are fully taken into account by the Conception of Territorial Development of Slovakia 2001 (CTDS), approved by the Resolution of the Government of the SR No 1033/2001. The Conception provides a long-term spatial reserve for the construction of transport infrastructure, whereby it declares binding parts of territorial plans of large territorial units of the individual Slovak regions in the form of binding regulations.

The aim of the individual priority axes is through the modernisation and development of transport infrastructure to support the proportional development of the individual regions so as to observe the principles of polycentric development of the Slovak settlement system.

From the view of international liaisons the settlement structures are positively influenced by the European transport network in multimodal corridors. The following corridors are referred to:

III: Berlin – Wroclaw – Krakow – Lvov – Kiev,
IV: Berlin/Norimberg – Prague – Bratislava – Istanbul,
V: Triest – Ljubljana – Budapest – Uzgorod – Lvov,
Va: Bratislava – Žilina – Košice – Uzgorod,
VI: Gdansk – Poznan/Lodge – Žilina.

The building of superior transport infrastructure overlaps with development areas, which ensures the connection to the European settlement network. The development of transport infrastructure is the basis for the creation of optimal conditions for a harmonious and environmentally friendly development of all activities of the society, particularly the development of residential centres so that they are able to meet requirements resulting from their long-term development.

## 7.2.5 Other national, sectoral strategic documents

The strategy of the development of transport infrastructure is based particularly on the following documents:

*Transport Policy of the SR until the Year 2015,* approved by RG SR No 445 of 8 June 2005, is drafted as a long-term strategic document, expressing the plans and aims in the area of transport for the achievement of the sustainable development of transportation, with stress on the requirement of a better mobility, at the observance of principles of the EU common transport policy.

*Updated New Project of the Construction of Motorways and Expressways,* approved by RG SR No 523 of 26 June 2003, defines the scope of the motorway network and the scope of expressway network of the SR.

*Programme of the Preparation and Construction of Motorways and Expressways for 2007-2010* – includes especially the proposal for new definition of extent of motorways and expressways, the implementation schedule and planned dates for the constructions handover for 2007-2010, financial framework of the programme and its reimbursement resources, as well as the development tendencies for 2011-2013. The programme has been approved by the MTPT SR.

*Programme of the Preparation and Construction of first-class roads for 2007-2010* – is aimed at the modernisation and development of first-class roads, whereby the material includes the strategy of new programme, its priorities, schedule of commencement and handover of the constructions for 2007-2010, as well as the nominal register of constructions planned to be implemented.

*Long-term Programme of the Development of Railways,* approved by RG SR No 197/1996, defines main directions of the development of railway infrastructure in Slovakia until the year 2010.

*Programme of the Development of Railways until the Year 2010 and Proposed Financing of Investment Projects,* approved by RG SR No 963 of 10 October 2001, defines main directions of the development of railway infrastructure in Slovakia until the year 2010.

*Programme of the Modernisation and Development of the Railway Infrastructure for 2007-2010* – programme is manly defining the factual schedule of the modernisation of railroad, railway junctions, stops and stations, as well as the implementation of interoperability with the perspective till 2013. The material has been approved by the MTPT SR on 16.4.2007.

*Strategy of ZSSK, Inc.* – a company document aimed at the fulfilment of general objectives of ZSSK strategic plan as mainly the growth of the transport share in economical environment of Slovakia and EU – competitiveness on domestic and international markets, improving the quality and offer of transport services, increasing the customers' satisfaction, long-term financial stability and development etc..

*Modernisation and Development of the Vehicle Fleet of ZSSK, Inc. for 2008-2010 (2012)* – represents a conceptual material, which is aimed mainly at the proposal of strategy for the modernisation of ZSSK vehicle fleet, including its financing issues. The modernisation plan goes out from the ZSSK Strategy and identifies the needs of the company for successful technological and company development for the next decade, to fulfil the objectives of Transport Policy of the SR until the Year 2015 for railway transport sector. The material has been approved by the MTPT SR on 16.4.2007.

Conception of the Development of Combined Transport with Outlook until the Year 2010, approved by RG SR No 37 of 17 January 2001. The document deals with issues of combined transport in main circuits such as legislative, organisational and economic conditions of the development of combined transport; potential of combined transport; proposed lines, their direction; development of infrastructure and technical basis.

Conception of passenger bus and railway transport, with the emphasis on system solution of financing if the public service obligations in 2005 and in the following years – the aim of the conception is to create conditions for provision of effectiveness of public services, which are financed from public resources through the designation of their optimum range and effective utilisation of public resources for their provision. It includes general measures aimed at the shift of competences for the basal transport service at the level of self-governing regions. The conception presumes the shift of selected competences in area of regional railway transport on the HTUs, the optimisation of the range of public service obligations commissioning and regulated competition as an instrument for the effective utilisation of public resources. The conception has been approved by RG SR No 377 of 10 May 2005

*Conception of integrated transport in Bratislava* – represents general principles in the preparation of the integrated transport system in the region of Bratislava self-governing region (BSK) called BID. During the implementation of the system, the single parts will be developed further in individual documents. The conception has been approved by the BSK authority on 25.4.2007 (Resolution No 24/2007).

*Plan of transport service of Košice self-governing region* – the aim of the material is to propose an optimum region service (extent of the transport and the ratio between single transport modes) for the provision of maximum effectiveness in utilisation if public resources, to check the conditions of effective creation of transport service plans in Košice region with orientation on the integrated system and to propose general procedures for consecutive application in other selfgoverning regions. Elaboration of the material is financed from the technical assistance 2004-2006 resources.

Till the end of 2007 a material: "Strategy of development of transport, posts and telecommunications until 2020" will be elaborated, which will solve long-term strategic intentions of the state in the development area of transport, posts and telecommunications policy.

## 7.2.6 Regional strategic documents

The Operational Programme Transport is a strategic document in the area of transportation, that is superordinated to regional strategic documents from the view of their hierarchy. As the proposed measures and activities in OPT significantly influence programmes of economic and social development of self-governing regions and municipalities, they were drafted on the basis of the principle of partnership in cooperation with representatives of regional and local structures (UPT and ASCC).

## 8 Financial plan

The financial plan determines the basis for the financing of OPT. The basic document for financial frameworks for the utilisation of resources from the CF and the ERDF was the Updated National Strategic Reference Framework approved by RG SR No 832 of 8 October 2006.

The total allocation for the Operational Programme Transport represents approximately EUR 3 206,9 mil. In current prices. The allocation of financial resources for the implementation of the individual measures under the priority axes takes into account the global aim and the importance of the fulfilment of the individual specific aims, whereby experiences in the implementation from the previous period were also considered.

In compliance with the resolution of government of the SR No. 834 of 8 October 2006 on the Strategy of financing the structural funds and Cohesion fund for the programming period 2007-2013, the share of support from the EU funds is figured to the total eligible public expenditures by course of article 53 paragraph 1b) of Council (EC) Regulation No 1083/2006 of 11 July 2006, which sets up the general provisions on European Regional Development Fund and Cohesion fund and which cancels the EC Regulation No. 1260/1999.

### 8.1 Financial plan of OP – annual commitments

Tab. 51: Financial plan of OPT structured by years (in EUR in current prices)

(in compliance with Annex XVI 1 of EC Regulation No. 1828/2006 of 8 December 2006, which sets up implementing rules of Council (EC) Regulation No. 1083/2006, which sets up the general provisions on European Regional Development Fund, European social fund and Cohesion fund, and Regulations of Council (EC) and European parliament No. 1080/2006 on European Regional Development Fund)

Year	Cohesion Fund	ERDF	Total
i cai	1	2	3=1+2
2007	124 991 929	124 789 767	249 781 696
2008	205 356 537	121 430 694	326 787 231
2009	298 667 205	116 857 795	415 525 000
2010	424 555 565	107 806 882	532 362 447
2011	455 909 513	116 084 899	571 994 412
2012	467 998 029	128 080 795	596 078 824
2013	352 016 720	162 358 265	514 374 985
Total	2 329 495 498	877 409 097	3 206 904 595

# 8.2 Financial plan of OP for the whole programming period structured by priority axes and financial resources

## Tab. 52: Financial plan of OPT structured by priority axes and financial resources (in EUR in current prices)

(in compliance with Annex XVI 2 of Commission Regulation (EC) No. 1828/2006 of the 8<sup>th</sup> of December 2006 by course of which are being performed implementation rules of Council Regulation (EC) No. 1083/2006 by course of which are being performed general provisions on European Regional Development Fund, European Social Fund and Cohesion Fund, and European Parliament and Council Regulation (EC) No. 1080/2006 on European Regional Development Fund)

	Community	National	Indicative bre the national c		Total	Co- financin		For mation
Priority axes	funding	counterpart	National public funding	National private funding	funding	g rate	EIB	Other
	а	b=c+d	с	d	e=a+b	f=a/e		
<b>COHESION FUN</b>	D							
Priority axis 1 Railway Infrastructure	782 746 878	138 131 802	138 131 802	0	920 878 680	0,85		
Priority axis 2 Road Infrastructure (TEN-T)	972 333 473	171 588 260	171 588 260	0	1 143 921 733	0,85		
Priority axis 3 Intermodal transport infrastructure	102 620 947	18 109 579	18 109 579	0	120 730 526	0,85		
Priority axis 4 Integrated transport systems infrastructure	471 794 200	83 257 800	83 257 800	0	555 052 000	0,85		
Total	2 329 495 498	411 087 441	411 087 441	0	2 740 582 939			
ERDF								
Priority axis 5 Road Infrastructure (expressways and first-class roads)	740 794 961	130 728 523	130 728 523	0	871 523 484	0,85		
Priority axis 6 Railway public passengers transport	88 510 567	88 510 567	88 510 567	0	177 021 134	0,50		
Priority axis 7 Technical assistance	48 103 569	8 488 865	8 488 865	0	56 592 434	0,85		
Total	877 409 097	227 727 955	227 727 955	0	1 105 137 052			
OPT TOTAL	3 206 904 595	638 815 396	638 815 396	0	3 845 719 991			

## 8.3 Allocation of support from the Funds to the support category at the level of OP

## Tab. 53: Categorisation of support (in mil. EUR in current prices) - an indicative division of allocations from EU funds

	Priority axis		Area of intervention		Fo	orm of financial su	pport	Territorial dimension		
	Thomy axis	Code	Priority theme	Amount	Code	Form of finance	Amount	Code	Territory type (cooperation)	Amount
	Priority axis 1 Railway infrastructure	17	Railways (TEN-T)	782,75	01	Non-repayable aid	782,75	00	N/A	782,75
	Priority axis 2 Road infrastructure (TEN-T)	21	Motorways (TEN-T)	972,33	01	Non-repayable aid	972,33	00	N/A	972,33
СF	Priority axis 3 Intermodal transport infrastructure	27	Intermodal transport (TEN-T)	102,62	01	Non-repayable aid	102,62	00	N/A	102,62
	Priority axis 4 Integrated transport systems infrastructure	17 25	Railways (TEN-T) Urban transport	382,32 89,47	01	Non-repayable aid	471,79	00 01	N/A Urban	382,32 89,47
	Priority axis 5 Road infrastructure (expressways and first-class roads)	20 22	Expressways (motorways) First-class roads (national roads)	524,22 216,57	01	Non-repayable aid	740,79	00	N/A	740,79
ERDF	Priority axis 6 Railway public passenger transport	18	Mobile rail assets	88,51	01	Non-repayable aid	88,51	00	N/A	88,51
	Priority axis 7 Technical assistance	85 86	Preparation, implementation, monitoring and inspection Evaluation and studies; information and communication	24,05 24,05	01	Non-repayable aid	48,10	00	N/A	48,10
	Operational Programme Transport TOTAL EU resources			3 206,90			3 206,90			3 206,90

## 9 Implementation system

This section describes the system of OPT implementation in accordance with the General Regulation and in accordance with the SF and CF management system for the programme period of years 2007 - 2013.

## 9.1 Authorities involved in management and implementation of OPT

### 9.1.1 Central Co-ordinating Authority

On the basis of the Resolution of the Government of the SR No 832 of 8 October 2006, the MCRD SR as a Central Co-ordinating Authority for operational programmes in the National Strategic Reference Framework of the SR for the period of years 2007 - 2013 ("CCA") ensures the strategic level of the management system of the NSRF. In this context the CCA performs in the area of management of the SF and CF support particularly the following functions:

- At the level of the NSRF it ensures the programming, monitoring, evaluation, promotion and provision of information and education of administrative capacities in these areas;
- It ensures the coordination of the processes of management and implementation of the operational programmes in accordance with the SF and CF Management System;
- It methodically manages the entities involved in management and implementation of the operational programmes;
- It is responsible for the development, operation and maintenance of ITMS;
- It performs the function of MA for the OP Technical Assistance.

### 9.1.2 Managing Authority of the Programme

The Managing Authority of the Operational Programme ("MA") represents the operational level of the management system of the NSRF. The Managing Authority is a body designated by a Member State according to Article 59(1) of the General Regulation, responsible for management and implementation of the Programme in compliance with the EU and SR regulations.

On the basis of RG SR No 832/2006, the Managing Authority for OPT 2007 – 2013 is the Ministry of Transport, Posts and Telecommunications of the Slovak Republic.

In accordance with Article 71 of the General Regulation, the internal structure and delegation of responsibilities of the MA for the OT will be outlined in the description of management and control systems that a Member State will present to the European Commission before the submission of the first application for interim payment, or not later than within 12 months following the approbation of OP.

Name of Managing Authority	Ministry of Transport, Posts and Telecommunications of the Slovak Republic
Address of Managing Authority	Námestie Slobody 6 P.O.Box 100 Bratislava 810 05 Slovak Republic

Tab. 54: MA for OPT - Name and Contact information

## 9.1.3 Functions of the Managing Authority

Pursuant to Article 60 of the General Regulation the MA for OPT is responsible for managing and implementing of the operational programme in accordance with principles of sound financial management and in particular for:

- a) ensuring that operations are selected for funding in accordance with the criteria applicable to the operational programme and that they comply with applicable Community and national rules for the whole of their implementation period;
- b) verifying that the co-financed products and services are delivered and that the expenditure declared by the beneficiaries for operations has actually been incurred and complies with Community and national rules; verifications on-the-spot of individual operations may be carried out on a sample basis in accordance with the detailed rules to be adopted by the Commission in accordance with the procedure referred to in Article 103(3);
- c) ensuring that there is a system for recording and storing in computerised form accounting records for each operation under the operational programme and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation are collected;
- d) ensuring that beneficiaries and other bodies involved in the implementation of operations maintain either a separate accounting system or an adequate accounting code for all transactions relating to the operation without prejudice to national accounting rules;
- e) ensuring that the evaluations of the operational programmes referred to in Article 48(3) are carried out in accordance with Article 47;
- f) setting up procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit trail are held in accordance with the requirements of Article 90;
- g) ensuring that the certifying authority receives all necessary information on the procedures and verifications carried out in relation to expenditure for the purpose of certification;
- h) guiding the work of the monitoring committee and providing it with the documents required to permit the quality of the implementation of the operational programme to be monitored in the light of its specific goals;
- i) drawing up and, after approval by the monitoring committee, submitting to the Commission the annual and final reports on implementation;
- j) ensuring compliance with the information and publicity requirements laid down in Article 69;
- k) providing the Commission with information to allow it to appraise major projects.

### 9.1.4 Monitoring Committees

### Monitoring Committee for the Operational Programme Transport

In accordance with Article 63 of the General Regulation the Monitoring Committee ("MC") has to be established for each OP within three months from its approbation by the European Commission. The purpose of the Monitoring Committee is to supervise the effectiveness and quality of the program implementation.

The chairman of the MC is the Minister of Transport, Posts and Telecommunications of the SR. The MA for OPT performs the function of the MC Secretariat. Members of the MC are appointed by the chairman. In accordance with Article 11 of the General Regulation the composition of the Monitoring Committee is based on the principle of partnership – beside of the competent ministries, members of the MC are representatives of the regional and local self-government, tertiary sector and other socio-economic partners concerned by the content of the respective operational programme, whereby it is necessary to ensure the balanced involvement of the partners. One of the MC members is a representative of the CAA, certification and auditing authority, and a representative of the European Commission and when appropriate a representative of the EIB participate in the work of the MC as observers and advisors.

The Monitoring Committee meets twice a year, or more frequently at the request of the MA or a MC member, when it is necessary to discuss matters requiring the consent of the Monitoring Committee (e.g. proposal for the revision of the operational programme).

The scope of powers and work of the MC are regulated by the statute and the rules of procedure that the MC will approve at its first meeting.

In accordance with Article 65 of the General Regulation the Monitoring Committee:

- approves criteria for the selection of projects (within six months from the approbation of OP) and their potential revision;
- examines and approves proposals for the change and completion of the operational programme;
- regularly examines consequences of the programme implementation, particularly the achievement of aims of the operational programme and the evaluation set out in Art. 48 (3) of the General Regulation;
- examines and approves annual and final reports on the implementation of the programme before their sending to the European Commission;
- receives information about the annual audit report or its part relating to OP and about all relevant comments that the Commission may raise following its examination;
- may any time propose to the Managing Authority any revision or examination of OP that might allow to achieve aims of the respective Fund or improve management of OP, including financial management.

### National Monitoring Committee for the NSRF

The Chairman of the National Monitoring Committed for the NSRF ("NMC") is the Minister of Construction and Regional Development of the SR as a representative of the CAA for the NSRF. The function of the Secretariat is performed by the CAA. The NMC approves the statute and the rules of procedure at its first meeting.

The National Monitoring Committee meets at least twice a year. Members of the NMC are representatives of bodies of central state government, municipalities, self-governing regions and other socio-economic partners. Observers are the Permanent Representation of the SR at the EU and the Ministry of Agriculture of the SR. The European Commission performs the function of an advisor.

The scope of main activities of the National Monitoring Committee includes:

- Monitoring of the implementation of the NSRF;
- Approbation of changes in the NSRF, falling within the scope of its authority;
- Preparation of a summary annual (or final) report for the NSRF;
- Approbation of strategic reports before their sending to the European Commission;
- Formulation of recommendations for the work of the OP Monitoring Committees with the aim to achieve of an effective system of monitoring and implementation of the cohesion policy in the SR;
- Approbation of the reallocation of resources between the operational programmes.

## 9.2 Monitoring

In line with the SF and CF Management System monitoring is an activity that systematically deals with the collection, sorting, aggregation and storage of relevant information for the purposes of the evaluation and control of managed processes. The main objective of monitoring is the regular monitoring of the implementation of aims of the NSRF, OP and projects with utilisation of indicators.

Outputs from monitoring provide for the Managing Authority inputs for decision-making with the aim to improve the implementation of the operational programme, the preparation of annual reports and the final report on the implementation of OP and basic information for the decision-making of the Monitoring Committees (e.g. in relation to a potential revision of OP).

The monitoring process is base on a structured model of management at the level of the NSRF, OP and projects. Monitoring and evaluation are performed by all entities involved in the SR and CF management, within the scope of defined tasks and responsibilities, as well as entities drawing financial resources from the Funds.

## MA for OPT in the area of monitoring performs particularly the following tasks:

- It is responsible for the collection of data and their analysis at the level of the programme in the area of monitoring through a system of indicators, as well as in the area of monitoring at the level of categories of the support;
- It is responsible for the preparation of annual and final reports on the implementation of OP, that it submits for approbation to the MC for OPT and subsequently to the European Commission.

**Monitoring (and subsequent evaluation) is executed in two ways** – on the basis of a system of indicators and on the basis of categories of the support from the SF.

### Monitoring through a system of indicators

Aims of the NSRF and the individual operational programmes are defined and subsequently quantifies in the programming process through a system of physical and financial indicators (National System of Indicators for the NSRF). The indicators will be binding for all entities and become a part of the ITMS. The fulfilment of the defined indicators represents the most important instrument for monitoring and evaluation of the aims of the operational programmes and the NSRF.

Monitoring starts at the lowest level – at the level of a project. For monitoring purposes the project is the basic unit that is analysed using relevant collected data. In the contract on the provision of the support from the Funds the beneficiary will undertake to provide data for the project monitoring and reporting purposes. Both physical and financial indicators of projects

obtained from the beneficiary and through the uniform monitoring sheets are projected in the ITMS and aggregated upwards to the level of a measure, priority axis, the operational programme, the NSRF.

### Monitoring through categories of support from the SF

In accordance with Article 37 (d) of the General Regulation and Annex II to the Implementation Regulation expenditures from the Funds are monitored according to the following categories:

- Priority theme;
- Form of finance;
- Territory type;
- Scope of economic activity;
- Scope of the support.

The OP contains an indicative planned division of the support from the Funds at the programme level in the first three categories. For the category "Priority Themes", an indicative share of the support from the Funds is allocated in OP for activities aimed to the support of competitiveness and for the creation of jobs, i.e. for so-called "Lisbon activities". This will enable during the implementation of the programme and following its termination to monitor and evaluate the contribution of the operational programmes to the fulfilment of aims of the Lisbon Strategy and the National Reform Programme.

In case of monitoring through categories of support from the SF the following procedure is used: Upon the approbation of a project data are entered into the ITMS and following the termination of the project the actual value achieved in the respective category is recorded. Through the ITMS data for the categorisation from the level of the individual projects are aggregated at higher levels of the programme structure and form a part of annual reports.

## 9.3 Evaluation

In line with the SF and CF Management System the evaluation represents a process that systematically examines the benefits from the implementation of programmes and their compliance with aims laid down in OP and the NSRF. It also analyses the effectiveness of implementation processes and the suitability of the adjustment of the individual programmes and measures and prepares recommendations for the enhancement of their efficiency.

Within the meaning of Article 47 of the General Regulation the evaluations may have a strategic character (examination of the development of a programme or group of programmes based on the EC and national priorities) or operational character (with aim to support the implementation of the operational programme). The evaluation is executed before the beginning of the programme period (preliminary evaluation), during the programme period (interim evaluation) and after the termination of the programme period (final evaluation).

The evaluations are executed within the responsibility of the Member State (CAA, MA) or the Commission, in accordance with the principle of proportionality. Results are published in accordance with valid regulations on the access to information.

## Tasks of the CAA in the area of evaluation:

- The preliminary evaluation of the basic strategic document for the programme period until the year 2013;
- The interim, priority evaluation at the central level;
- The coordination and methodical direction of managing authorities in the area of evaluation.



### Tasks of the MA for OPT in the area of evaluation:

- It proceeds in accordance with the methodology in the area of evaluation;
- It will execute the preliminary and interim evaluation of OPT and the submission of results of the interim evaluation to the Monitoring Committed of OPT and to the Commission;
- It ensures the communication with the European Commission and inputs for subsequent evaluation of OP and potential strategic evaluation executed by the European Commission.

## 9.4 IT monitoring system for the SF and CF

The IT monitoring system for the SF and CF ( "ITMS") is a central information system that serves for registration, processing, export and monitoring of data on programming, project and financial management, control and audit of the SF and the CF. It consists of two parallel working subsystems for the programme periods 2004-2006 and 2007-2013. The subsystems for the two programme periods closely cooperate, use a common database and a common register of objects contained in the common database.

The ITMS is equally used by all operational programmes. The common monitoring system should provide for the uniform and compatible system of monitoring, management and financial management of programmes financed from the SF and the CF.

The system is divided into three main parts:

- 1. The non-public part of the ITMS provides for programme, project and financial management, control and audit in connection to the accounting system FAIS and through it to the treasury and budget information system;
- 2. The output part provides for the creation of static and dynamic data exports;
- 3. The public part ensures the communication with beneficiaries, with the information system of the European Commission SFC2007 and with monitoring systems of the neighbouring countries for cross-border cooperation programmes.

Authorised users of the public part of the ITMS may be, at the request, all entities that have the possibility to submit an application for support from the Funds. The communication between applicants/beneficiaries and the public part of the ITMS is ensured by the utilisation of the SSL protocol. The CAA will draw up a manual for beneficiaries for the utilisation of the public part of the ITMS. Through the public part of the ITMS the following options will be provided to the applicants/beneficiaries:

- electronic submission and reception of applications for a support from the EU funds;
- reception of transparent information about the state of processes of their projects, including the applications for payment/refund of costs;
- other options (updating of data on the beneficiary, electronic reception of the application for payment, electronic reception of monitoring sheets).

The ITMS and communication processes of the beneficiaries for the support from the Funds at the project level are the following:

- Opening of account, signing of an agreement on utilisation between the MA and the beneficiary of the support from the Funds, activation of account;
- Entry of data in electronic forms and their transfer to the public part of the ITMS, sending of certified hard copy of the form by the beneficiary to the administrator and the user of the non-public part of the ITMS;

- Verification of the compliance of information in electronic and hard copy of the form by the user of the non-public part of the ITMS;
- Further processing of the application following the review and correction of potential discrepancies between the electronic and the hard copy.

### Tasks of the CAA in relation to the ITMS:

- It is responsible for the development, operation and maintenance of the system, ensures the operation of all parts of the ITMS;
- It manages the commission in which each managing authority has its representative and that proposes the direction of the development, communicates the requirements of the MA to the CAA, manages and provides advice to system users according to instructions and guidelines of the CAA, is responsible for initialisation data of the system;
- It draws up guidelines to the utilisation of the ITMS;
- It currently updates initialisation data at the level of the NSRF.

### Tasks of the MA for OPT in relation to ITMS

- It currently updates initialisation data of its programme;
- It is responsible for the entry of data on the programme, projects and on subordinated structures in accordance with guidelines of the CAA to the utilisation of the ITMS;
- It is responsible for the allocation of roles to the users in accordance with internal manuals;
- It provides the first-level support to users of public and non-public parts of the ITMS.

## 9.5 Electronic data exchange with the European Commission

Within the meaning of the Implementation Regulation, Section 7, the electronic communication of the Member State with the database of the European Commission SFC 2007 is obligatory.

The following forms of electronic communication are available:

- SFC2007 web interface;
- Integration of monitoring systems of the Member States with SFC2007.

In conditions of the SR the second way of communication was chosen: integration of ITMS II with the system SFC2007. ITMS II will ensure the collection of data and the communication with SFC2007. The utilisation of the SFC2007 web interface is possible for the individual MA, but the utilisation of the ITMS II interface will ensure the integrity of data in both systems and save time required for the entry of data. In case of malfunction of the ITMS or the interface, with consent of the CAA, the web interface can be used for the entry of data in SFC2007, but the entity entering data is responsible for the harmonisation of data in the two systems.

### ITMS II and SFC2007 interfaces:

- Import of the specification of allocated amount from the SF and CF for the SR by aims in constant prices of year 2004 and in current prices;
- Export of the NSRF;
- Export of OP and priority axes;
- Export of large projects;
- Export of OP TA;
- Import of decisions of the EC on OP;
- Specification of categorisation of EU funds;
- Export of estimated expenditures;
- Applications for payment to the EC;
- Declaration of partial termination of the Programme;

- Export of description of management and control systems;
- Export of annual reports;
- Export of final reports;
- Export of final payment;
- Settlement (compensation) according to the rule n+2, (n+3);
- Export of unstructured data: NSRF;
- Import of unstructured data: Decisions of the EC on the NSRF, OP.

The communication security of ITMS II and SFC2007 at the level of systems is treated by the guaranteed electronic signature that will be issued for ITMS II.

So-called MS Liaison in each Member State is responsible for the identification of users and client systems within SFC2007. The function of the MS Liaison for ERDF, ESF and CF is performed in the SR by the responsible employee of the CAA. All applications for the access to the SFC2007 web interface and for the change of access rights are sent to the CAA. Following the formal and material check of the applications the MS Liaison communicates with the European Commission during the creation and activation of the user account. The access passwords from the European Commission are sent in two parts: one directly to the user, the other to the MS Liaison.

### 9.6 Information and Publicity

In accordance with Article 69 of the General Regulation, the Managing Authority will provide information about operations and the programme and ensure its publicity. The information is intended for citizens of the European Union and beneficiaries of the support, with the aim to underline the function of the Community. The publicity and provision of information on the part of the MA for OPT will be implemented in accordance with implementation rules of the General Regulation.

#### Tasks of the CAA in the area of awareness and publicity:

- To prepare and implement the Central Communication Action Plan for the SF and the CF ("CCAP") including cross-sectional activities for all operational programmes;
- To co-ordinate and methodically direct the managing authorities in the area of awareness and publicity;
- To serve as a contact body for the European Commission and communication networks of the Community and inform the managing authorities.

The specific position of the transport sector, where the Ministry as a MA for OPT does not apply the system of calls for transport projects and where a limited number of beneficiaries of the support from the EU funds exists, significantly affects the implementation of publicity and provision of information. The main purpose of information activity is therefore to ensure particularly the awareness of the general public of possibilities and benefits of OPT.

The MA for OPT will prepare for the period of years 2007 - 2013 the Communication Action Plan (CAP) with a detailed description of the preparation, management, implementation and evaluation of information-promotional activities to transport projects, a part of which will be the Plan of particular information-promotional activities, drawn up for the individual calendar years. During the implementation of CAP the MA will ensure the implementation of all measures for the provision of information and publicity within the meaning of Articles 5 to7 of the Implementation Regulation.

Activities related to publicity and provision of information will be financed from budget of the Technical Assistance for OPT. Financial allocations for the period of years 2007 - 2013 will be determined later.

### Tasks of the MA for OPT in the area of provision of information and publicity:

- To draw up the Communication Action Plan for OPT;
- To submit the CAP to the European Commission within 4 months following the approbation of OPT;
- To include the area of publicity and provision of information in annual and final reports on the implementation of OPT;
- To inform OPT Monitoring Committee about the progress of the implementation of CAP, executed and planned activities;
- To ensure the compliance with provisions of Article 8 of the Implementation Regulation by the beneficiary (the obligation to inform he public about the support provided from the EU funds) through the treatment of these matters in the contract with the beneficiary.

## 9.7 Financial management, control and audit

The financial management system of the Structural Funds and the Cohesion Fund includes a set of interconnected subsystems and activities through which the effective financial planning, budgeting, reporting, payments to beneficiaries of the support, monitoring of cash flows and financial review and audit are ensured in the implementation of the support from the European Community.

The following entities are involve in the financial management system of the operational programme:

- Managing Authority,
- Certification Authority,
- Paying Unit,
- Auditing Authority.

Functions of the Managing Authority are defined in section 9.1.3.

Functions of the **Certification Authority** are performed by the Ministry of Finance of the SR. The Certification Authority ensures particularly:

- The coordination and methodical direction in relation to financial management of the Structural Funds and the Cohesion Fund, including the coordination of activities of the Paying Units;
- The preparation and sending of applications for interim payments and final payment to the European Commission;
- The preliminary financial review of the summary application of Paying Units for payment;
- The certification review at all levels of financial management, including the beneficiary of support, to make sure that procedures of the Managing Authority, Intermediary Authority reporting to the Managing Authority and Paying Units were applied;
- The certification of the statement of expenditures to the EC;
- The reception of EU resources to separate off-budget accounts of the MF SR;

- The transfer of EU resources to the beneficiary of support through the Paying Unit;
- To prepare and submit the estimate of expected expenditures for the respective and following year to the European Commission on the basis of information from the Managing Authorities, every year before the end of April;
- To keep the book of debtors;
- To prepare and submit by 31 March the statement of amounts as per 31 December of the previous year to be refunded, structured by years of the commencement of the procedure;
- To execute financial corrections of EU resources on the basis of requirements of the European Commission;
- To refund unduly used or unused funds to the European Commission, including default interest;
- To introduce the single accounting system for the Certification Authority and for Paying Units (Fund Accounting Information System – FAIS);
- To execute bookkeeping, reporting and storage of documents.

Functions of the **Paying Unit** are performed by the Ministry of Transport, Posts and Telecommunications of the SR. The Paying Unit ensures particularly:

- The appraisal of the applications for a payment of beneficiaries received from the Managing Authority;
- The transfer of EU funds and SB funds for the co-financing to the beneficiaries of the support;
- The completion and submission of summary applications for payment and partial statements of expenditures to the Certification Authority;
- The bookkeeping, reporting and filing of documents;
- The keeping of a partial book of debtors.

Functions of the **Auditing Authority** are performed by the MF SR. Main tasks of the Auditing Authority are:

- a) To elaborate a report on result of appraisal on systems introduction, according to the point 2 article 71 Regulation 1083/2006;
- b) To ensure that audits are executed with the aim to verify the effective functioning of the operational programme management and control system;
- c) To ensure that audits of operations are executed on a suitable sample so that declared expenditures are verified;
- d) To submit to the Commission within nine months from the approbation of the operational programme the audit strategies dealing with entities executing the audits set out in subparagraphs (b) and (c), used method, method of the selection of a sample for operations audit and indicative audit plan, with the aim to ensure that main entities are audited and that audits are evenly distributed during the whole programme period. If a common system is used for several operational programmes, one audit strategy may be submitted.
- e) By 31 December of each year, during the period from the year 2008 to the year 2015, it is responsible for:
  - i) The submission to the Commission of the annual audit report, containing findings of audits executed during the previous period of 12 months ending on 30 June of the affected year, in accordance with the audit strategy of the operational programme,

and indicating weaknesses identified in the programme management and control systems. The first report to be submitted by 31 December 2008 covers the period from 1 January 2007 to 30 June 2008. Information relating to audits executed after 1 July 2015 will be included in the final audit report that is the basis for the declaration of the termination set out in subparagraph (f);

- ii) The provision, on the basis of reviews and audits executed under its lead, of an opinion whether the management and control system functions efficiently enough to provide an adequate guarantee that statements of expenditures submitted to the Commission are correct, and hence an adequate guarantee that the respective transactions are legal and correct;
- iii) The submission, in cases stipulated in Article 88, of the declaration of partial termination, on the basis of which the legality and correctness of the respective expenditures are assessed. If a common system is used for several operational programmes, the information stated under (i) may be combined in a single report and the opinion and the declaration provided pursuant to (ii) and (iii) may include all these operational systems.
- f) To submit to the Commission not later than on 31 March 2017 the declaration of termination, evaluating the validity of the application for final payment and the legality and correctness of the respective transactions included in the final statement of expenditures, documented by the final audit report.

At the Ministry of Finance of SR the functions are provided by organisationally non-connected departments. The Certification Authority functions are performed by the Department of European and International affairs of MF SR, which is organisationally subordinated to the 1<sup>st</sup> state secretary. The Auditing Authority function is performed by the Department of audit and control of international finance resources of MF SR, of which director general is in direct managing competence of the finance minister.

MF SR as the Auditing Authority will sign an agreement with individual ministries with specification of audit activity subject, which will be provided by single independent departments at the ministries and the Administrations of financial control, till the end of August 2007 at latest. These departments will be follow the Procedures for the audit of structural funds, Cohesion fund and European Fisheries Fund for 2007-2013, which will be elaborated by the a department of audit and control of international financial resources by 31.7.2007. MF SR will monitor the activities of this bodies; detailed procedures of monitoring will be a part of Procedures for the audit of structural funds, Cohesion fund and European Fisheries Fund for 2007-2013.

## 9.7.1 System of cash flows

Payments of EU funds are transferred from the European Commission to a separate account of the Certification Authority of the Ministry of Finance of the SR in the Treasury, in the framework of the commitment adopted by the European Commission. Payments of EU funds to beneficiaries are effected through the state budget.

The EU funds and state budget funds for co-financing are paid to the beneficiaries through the Paying Unit also on the basis of the contract on provision of non-refundable subsidy, in the ratio determined for the project.

The EU resources payments and co-financing from the state budget to the beneficiaries is performed by the Paying Unit in the amount approved by the Certification Authority on basis of general application for payment in case of refunding system. In case of upfront payments system, or pre-financing, the payments to the beneficiaries is performed by the Paying Unit in amount of approved applications for upfront payments, or pre-financing, without previous agreement of the Certification Authority.

The detailed description of financial management is laid down in the Financial management System of the Structural Funds and the Cohesion Fund for the Programme Period 2007 - 2013, approved by the Resolution of the Government of the SR No 835/2006 of 8 October 2006 and published on <u>www.finance.gov.sk</u>.

## Scheme of financial flows of structural funds and Cohesion fund resources



## Scheme of financial flows of national co-financing from the state budget



## 10 Annexes

## List of Annexes

Annex 1	Indicative list of main projects
Annex 2	Map of railway corridor network in the SR
Annex 3	Map of motorway and expressway network in the SR
Annex 4	Accessibility of the Slovak territory from motorways and expressways – situation in 2005
Annex 5	Intermodal transport terminals in the territory of the SR in relation to planned industrial parks and other transport infrastructure
Annex 6a	Traffic intensity on first-class roads in the year 2005
Annex 6b	Traffic intensity in the TEM route in the year 2005
Annex 7	Accident rate in corridors of TEN-T expressways of the SR in the year 2004
Annex 8	Accessibility of the Slovak territory from motorways and expressways – outlook until the year 2015

## **Abbreviations and Acronyms**

AGC	Accord europeen sur les grandes lignes internationales de Chemin de fer
AGTC	Accord europeen sur les grandes lignes de transport international combiné et les
	installations connexes
ASCC	Association of Slovak Cities and Municipalities
CAP	Communication Action Plan
CCA	Central Co-ordinating Authority
CF	Cohesion Fund
CNG	Compressed Natural Gas
CSF	Community Support Framework
DES	Development of environment systems
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EC	European Commission
EU	European Union
ERDF	European Regional Development Fund
ERTMS	European Railway Transport Management System
ESF	European Social Fund
FAIS	Fund Accounting Information System
GDP	Gross domestic product
GNI	Gross national income
IACA	Intermediary Authority reporting to the Certification Authority
IDS	Integrated transport system
ITSK	Integrated transport system of rail passenger transport on the territory of city
	Košice in region Košice
IKT	Information communication technologies
ITMS	Information monitoring system
ISPA	Instrument for Pre-Accession Structural Policies
MA OPT	Managing Authority for the Operational Programme Transport
MCRD SR	Ministry of Construction and Regional Development of the Slovak Republic
MLSAF SR	Ministry of Labour, Social Affairs and Family of the Slovak Republic
MS Liaison	Intermediary Authority of the Member State

MTPT SR NDS, a.s.	Ministry of Transport, Posts and Telecommunications of the Slovak Republic Národná diaľničná spoločnosť, a.s. (National Motorway Company, Inc.)
NRA	Number of road accidents
NSRF SR	National Strategic Reference Framework of the Slovak Republic 2007-2013
NUTS	Nomenclature of Territorial Statistical Units
OP	Operational programme
OPBI	Operational Programme Basic Infrastructure
OPT	Operational Programme Transport
PDG	Programme declaration of the Government
PHO	Public Health Office
PM	Solid particles
RG SR	Resolution of the Government of the SR
SAS	Slovak Academy of Sciences
SB	State budget
SBT	Slovak Bus Transport
SEA	Strategic environmental assessment
SF	Structural Funds
SFC2007	European Commission Funds Management System 2007-2013
SHMI	Slovak Hydrometeorologic Institute
SOP TI	Sectoral Operational Programme Transport infrastructure
SP TI	Specific Priority Transport Infrastructure
SRA	Slovak Road Administration
SSL	Secure Socket Layer
TEM	Trans European motor roads
TEN-T	Trans European networks - transport
UIC	Medzinárodná únia železníc (Union Internationale des Chemins de Fer)
UMT	Urban mass transport
UPT	Upper territorial unit
VÚD, a.s.	Výskumný ústav dopravný, a.s. (Transport Research Institute, Inc.)
WCA	Water conservancy area
ZSSK, a.s.	Železničná spoločnosť Slovensko, a.s. (Slovak Railway Company, Inc.)
ŽSR	Železnice Slovenskej republiky (Railways of the SR)

## Composition of the Working Party for the Preparation of OPT

Tab. 55: Composition and numbers of representatives of the "Working Party for the Preparation of OPT"

No	Organisation/Institution	Number of representatives
	Selected ministries	
1.	Ministry of Transport, Posts and Telecommunications of the SR	6
2.	Ministry of Construction and Regional Development of the SR	1
3.	Ministry of Environment of the SR	2
4.	Ministry of Economy of the SR	1
5.	Ministry of Finance of the SR	2
6.	Ministry of Education of the SR	1
7.	Ministry of Culture of the SR	1
	Supposed beneficiaries	

8.	Slovak Road Administration	2
9.	Railways of the SR	1
10.	National Motorway Company, Inc.	1
	Self-governing regions	
11.	Self-governing region of Bratislava	2
12.	Self-governing region of Trnava	2
13.	Self-governing region of Trenčín	1
14.	Self-governing region of Banská Bystrica	1
15.	Self-governing region of Nitra	1
16.	Self-governing region of Žilina	1
17.	Self-governing region of Prešov	1
18.	Self-governing region of Košice	1
	Non-governmental organisations	
19.	Association of Employers in Transport, Posts and Telecommunications of the SR	2
20.	Friends of the Earth	2
23.	Association of Cities and Municipalities of Slovakia	1
24.	Association of trade unions in transport, posts and telecommunications of the SR	1
25.	Union of Slovak cities	2

## List of Tables

Tab. 1:	Level of GDP in selected member countries in comparison with the average of the EU 25 in the year 2004	9
Tab. 2:	Investments in the transport infrastructure of the SR	
Tab. 3:	Share of investments in the transport infrastructure of the SR	
Tab. 4:	Share of investments in the transport infrastructure in relation to GDP of the SR	
140. 1.	(current prices)	12
Tab. 5:	Transport of goods by the freight transport of the SR	
Tab. 6:	Transport performance of the goods transport of the SR	
Tab. 7:	Number of transported persons in the SR in the period of years 2000 to 2004 by	
	selected transport modes	15
Tab. 8:	Traffic performance for passenger transport of the SR in the years 2000 to 2004 by	
	selected transport modes.	16
Tab. 9:	Division of operations (modal split) in selected modes for passenger traffic in the SR	16
Tab. 10:	Development of transport performances (in thousand vehicle-km per average day of	
	year)	17
Tab. 11:	Development of road traffic intensity in the SR by selected road types (annual	
	average of daily intensities in actual vehicles/day)	17
Tab. 12:	Length of the railway network of the SR in the period of years 2000 to 2004	18
Tab. 13:	Density of the railway network of the SR in the period of years 2000 to 2004	20
Tab. 14:	Highways integration to TEN-T	21
Tab. 15:	Expressways integration to TEN-T	22
Tab. 16:	Length of motorways and feeder roads of the SR in the period of years 2000 to 2004	
	at the levels NUTS 1 to NUTS 3	22
Tab. 17:	Length of expressways of the SR in the period of years 2000 to 2004 at the levels	
	NUTS 1 to NUTS 3	23
Tab. 18:	Length of first-class roads of the SR in the period of years 2000 to 2004 at the levels	
	NUTS 1 to NUTS 3	23

Tab. 19:	Density of the road infrastructure network of the SR in the period of years 2000–2004 at the levels NUTS 1-NUTS 3	24
Tab. 20:	Number of inhabitants in relation to the accessibility from motorways and	
TT 1 01	expressways in the year 2005	
Tab. 21:	Technical condition of the pavement of motorways in the SR in the year 2004	
Tab. 22:	Technical condition of the pavement of first-class roads in the year 2004	26
Tab. 23:	Number of combined transport terminals and container terminals of the SR in the period of years 2000 – 2004	27
Tab. 24:		
Tab. 24. Tab. 25:	Performances in container terminals of the SR in the period of years 2004 and 2005 Age structure of railway mobile means in the year 2005	
		28
Tab. 26:	Driving railway vehicles, towed, inserted cars and wagons in the year 2005 according to NUTS 2	30
Tab. 27:	Number of tariff points on the railway network of the SR in 2005 according to NUTS	
	2	31
Tab. 28:	Overview of the production of total emissions of selected pollutants from the traffic	22
T-1. 20.	operations (thousand tones)	33
Tab. 29:	Share of the individual transport modes on emissions of carbon dioxide CO <sub>2</sub> (thousand tones)	33
Tab. 30:	Total annual emissions of selected pollutants from transport and operation of other	
1 001 0 01	mobile resources and their percentage share on total emissions for the year 2004	34
Tab. 31:	The number of road accidents by regions – NUTS 2 and total number of road	
140.01.	accidents - NUTS 1 in the period of years 2000 – 2004	36
Tab. 32:	Development of the accident rate in the SR in the period of years 2000 – 2004	
Tab. 33:	List of projects realized within the ISPA instrument.	
Tab. 34:	List of projects implemented in the framework of the Strategy for the CF of SR 2004	
	- 2006	
Tab. 35:	List of selected projects implemented in the framework of OPBI 2004 – 2006	39
Tab. 36:	Scheme of a part of the SWOT analysis with regional projection at the level of NUTS 3	42
Tab. 37:	Scheme of key disparities in process with regional projection at the level of NUTS 3	
Tab. 38:	Scheme of development factors in process with regional projection at the level of	15
140. 50.		46
Tab. 39:	Programme indicators	
Tab. 40:	Division of priority axes of OPT 2007 – 2013	
Tab. 41:	Indicators of Priority axis 1	
Tab. 42:	Number of inhabitants in relation to accessibility from motorways and expressways -	05
140. 12.	expected status in 2015	65
Tab. 43:	Indicators of Priority axis 2	65
Tab. 44:	Indicators of Priority axis 3	67
Tab. 45:	Indicators of priority axis 4	
Tab. 46:	Number of inhabitants in relation to accessibility from motorways and expressways -	
	expected status in 2015	
Tab. 47:	Indicators of Priority axis 5	
Tab. 48:	Indicators of Priority axis 6	
Tab. 49:	Compliance of OPT strategy with EU strategic documents	
Tab. 50:	Complementarity of operational programmes in relation to transport	
Tab. 51:	Financial plan of OPT structured by years (in EUR in current prices)	88
Tab. 52:	Financial plan of OPT structured by priority axes and financial resources (in EUR in	20
Tab 52.	current prices)	89
Tab. 53:	Categorisation of support (in mil. EUR in current prices) – an indicative division of allocations from EU funds	00
Tab. 54:	MA for OPT – Name and Contact information	
1 au. 54.		71

Tab. 55:	Composition and numbers of representatives of the "Working Party for the	
	Preparation of OPT" 1	.05

## List of Figures

Fig. 1:	Territorial systematisation of the SR	8
Fig. 2:	Share of investments in the transport infrastructure of the SR in relation to GDP	10
Fig. 3:	Transport performance in freight goods transport in the Slovak Republic	13
Fig. 4:	Density of the railway network in the year 2003 (km/thousand km <sup>2</sup> ) – International	
C	comparison	20
Fig. 5:	Density of the motorway network in the year 2003 (km/thousand km <sup>2</sup> ) – International	
C	comparison	24
Fig. 6:	Age structure of railway mobile means in the year 2005 – driving vehicles	29
Fig. 7:	Age structure of railway mobile means in the year 2005 – wagons	29
Fig. 8:	Age structure of railway mobile means in the year 2005 – compact units	29
Fig. 9:	Territorial division of mobile means by individual regions of the SR at the level	
C	NUTS 2 – driving railway vehicles and towed and inserted cars	30
Fig. 10:	Territorial division of mobile means by individual regions of the SR at the level	
C	NUTS 2 – wagons	30
Fig. 11:	The number of black spots (BS) and the number of road accidents (NRA) per BS in	
C	the individual regions of the SR for the year 2004	35
Fig. 12:	Aims and Priority axes of OPT	52
-		