

# **OPERATIONAL PROGRAMME TRANSPORT**

**2007 – 2013**



Prague  
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## PREAMBLE

The list of projects in Appendix 1 and the schemes in Appendix 2 are to be considered as indicative. These projects and their configuration (specific line routings, e.t.c.) could be amended and changed during the programming period. Approval to co finance any project mentioned in the OP Transport and in the appendixes, will be subject to the examination of his application for co financing by the Managing Authority of the OP Transport, including the Environmental Impact Assessment (EIA) and the Cost - Benefit (C/B) analysis which should contain, inter alia, comparison of alternative options on the base of their cost and environmental aspects in line with the "letter and spirit" of the relevant Community legislation. The findings of the comparative studies of the examined projects alternatives, both from an economic and environmental point of view, will be part of the formal application for the co financing of the projects<sup>1</sup>. It should finally be stated that approval of the operational programme and approval of financial support for individual projects are two separate processes and therefore the decision of the European Commission on the programme approval does not prejudice the approval of co financing for any individual project.

## INTRODUCTION

The Operational Programme Transport (hereinafter referred to as “OP Transport”) has been prepared in accordance with:

- The Council Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund, and the Cohesion Fund, and on repeal of the Regulation (EC) No. 1260/1999 (hereinafter “General Regulation”);
- The Council Regulation No. 1084/2006 establishing the Cohesion Fund and repealing the Regulation (EC) No. 1164/1994 (hereinafter “CF Regulation”);
- The European Parliament and Council Regulation (EC) No. 1080/2006 on the European Regional Development Fund and on repeal of the Regulation (EC) No. 1783/1999 (hereinafter “ERDF Regulation”); and
- The Commission Regulation (EC) No. 1828/2006 laying down implementing provisions to the Council Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund, and to the European Parliament and Council Regulation (EC) No. 1080/2006 on the European Regional Development Fund (hereinafter “Implementation Regulation”).

The OP Transport is a document responding to the European Commission’s recommendation to the Czech Republic (hereinafter “CR”) to present an Operational Programme for 2007 – 2013 that would include the development priorities of the transport sector, and which could be co-financed from the Structural Funds – i.e. European Regional Development Fund – (hereinafter “ERDF”) and from the Cohesion Fund (hereinafter “CF”). In its focus it is linked to OP Infrastructure and assistance from the ISPA instrument and from the Cohesion Fund (programming period 2004 – 2006).

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<sup>1</sup> In the scope as requested by app. XXI of the Implementation Regulation

Within the objective “Convergence”, Structural Funds may support regions on the NUTS II level with gross domestic product (hereinafter “GDP”) lower than 75 % of the EU 25 per capita average measured in purchasing power parities. Only the Member States with GNI lower than 90 % of the EU 25 per capita average measured in purchasing power parities are eligible for support from the CF.

OP Transport is complimentary to other Operational Programmes elaborated under the National Strategic Reference Framework for 2007 – 2013 (hereinafter “NSRF”).

OP Transport has been drafted in line with other strategic documents:

- The EU White Paper: European Transport Policy up to 2010 – Time to Decide
- Community Strategic Guidelines (hereinafter “CSG”).

OP Transport thus reflects the cohesion policy reform, the purpose of which is to:

- Increase concentration on the strategic orientations of the EU (the Lisbon and Göteborg commitments concerning competitive and sustainable “knowledge economy”, and the European employment strategy);
- Target the focus on the least developed regions, foreseeing the development of the remaining part of the EU; and
- Advance decentralisation, and implement steps in a simple, more transparent, and more effective manner.

Transport infrastructure, playing a key role for the Czech economy, will be built and upgraded under the NSRF priority axis *Improving Accessibility by Transport*. Special attention will be paid to securing sufficient capacity on European road and rail transport corridors, and to connecting the main national economic centres to the European transport network.

Attention will be paid primarily to the construction and upgrading of the TEN-T network and related networks, upgrading of lower class roads, improving the quality of transport, introducing modern ways of management and setting up advanced transport technologies.

The completion of the backbone network, which is comprised of the TEN-T networks, and the connection of regions to the backbone network plus connections inside the regions, will enhance permeability of transport networks and improve the accessibility of the individual regions, as well as their mutual connections. Improving the transport networks, building supplemental facilities reducing their environmental impact (e.g. noise barriers) and also improving the quality of transport for the user will enable the development of transport connections among and within regions, thereby contributing to worker mobility with impact on employment, improving competitiveness and increasing the quality of life of the inhabitants.

OP Transport includes seven priority axes, five of which will be supported from the CF, and two from the ERDF. The Ministry of Transport (hereinafter “MoT”) will be responsible for its implementation. Financial support from the ERDF and the CF will require co-financing of selected projects aimed at meeting the objectives of OP Transport from the public sources (State budget, State Fund for Transport Infrastructure) and to a certain extent from regional public sources (regions, towns, or municipalities), and possibly from private sources, as well.

OP Transport was developed by the MoT alongside the NSRF, in line with the principles of partnership. Relevant Ministries, cohesion regions, the Prague City Hall, the Union of Towns and Municipalities, representatives of labour unions, economic sector, non-governmental non-

profit organizations, main beneficiaries and the European Commission are the main partners who participated on drafting of OP Transport. Involvement of partners in elaboration of the programming document was carried out via working groups established by the MfRD in its coordinating activity for preparation and implementation of economic and social cohesion policy in the CR, via the OP Transport Preparatory Committee, establishing of which was initiated by the MoT, via bilateral negotiations, public hearings and presentations (detailed description of partners' involvement is presented in Chapter 2.2.5.1). During its preparation, the draft OP was presented for consultations and comments to relevant MoT departments and subsequently to other partners. Each approved and commented version of the OP was published on the MoT website, including updates based on the SEA assessment and ex-ante evaluations of the OP. OP Transport, together with the other OPs, passed through the inter-ministerial comment procedure.

OP Transport will also monitor the situation regarding equal opportunities with regard to employment, and the accessibility of various types of transport for persons with impaired mobility and orientation.

# **1 THE PRESENT ECONOMIC AND SOCIAL SITUATION IN THE TRANSPORT SECTOR**

## **1.1 *Evaluation of the Base Documents***

OP Transport was drafted in line with the basic EU and CR strategic documents.

### **1.1.1 EU Documents**

#### **Community Strategic Guidelines, 2007 – 2013**

The CSG, 2007 – 2013 express the cohesion policy for growth and employment promotion. The priorities for Europe are increase in competitiveness, increase in growth potential and productivity, and enhanced social cohesion, with the main emphasis being put on knowledge, innovation and the optimisation of human capital.

The guideline more attractive Europe and European regions for investors and workers is essential for the transport sector. The expansion and improvement of transport infrastructure must be supported in such a way as to ensure the greatest possible benefit out of the investments into transport. When deciding where to target the investment, objective criteria are to be considered (rate of return, social benefits and environmental impact), as well as the principle of environmental sustainability, ensuring railway interoperability; with an emphasis also being put on safety, balanced modal shift, ITS, etc.

#### **General Regulation**

Pursuant to Article 54 of the General Regulation, OP Transport is subject to the priority axis specific to each fund (CF and ERDF). The overall contents of OP Transport must correspond to the contents defined in this Article, especially the rationale provided for each of the selected priority axes, reflecting the CSG, NSRF and ex-ante evaluations.

#### **CF Regulation**

The scope of assistance is defined in Article 2 (quotation of paragraph 1):



*“Assistance from the Fund shall be given to actions in the following areas, ensuring an appropriate balance, and according to the investment and infrastructure needs specific to each Member State receiving assistance:*

- a) Trans-European transport networks, in particular priority projects of common interest as identified by the Decision No 1692/96/EC;*
- b) Environment within the priority axes assigned to the Community environmental protection policy under the policy and action programme on the environment. In this context, the Fund may also intervene in areas related to sustainable development which clearly present environmental benefits, namely energy efficiency and renewable energy and, in the transport sector outside the trans-European networks, rail, river and sea transport, intermodal transport systems and their interoperability, management of road, sea and air traffic, clean urban transport and public transport.”*

### **ERDF Regulation**

The scope of assistance is defined in Article 3 (quotation of paragraph 2):

*“The ERDF shall contribute towards the financing of:*

- a) Productive investment which contributes to creating and safeguarding sustainable jobs, primarily through direct aid to investment primarily in small and medium-sized enterprises (SMEs);*
- b) Investment in infrastructure;*
- c) Development of endogenous potential by measures which support regional and local development. These measures include support and services to enterprises, in particular SMEs, creation and development of financing instruments such as venture capital, loan and guarantee funds, local development funds, interest subsidies, networking, cooperation and exchange of experience between regions, towns, and relevant social, economic and environmental actors;*
- d) Technical assistance as referred to in Articles 45 and 46 of Regulation (EC) No 1083/2006.”*

### **The Lisbon Strategy**

The goals of the Lisbon Strategy (applying research, development, and innovation results; creating suitable conditions for business development and improvement of the business environment; creating conditions for increasing employment and resolving the problems of population ageing; improving the environment; and supporting infrastructure) significantly contribute to economic growth and competitiveness of countries and their regions.

### **The EU White Paper: European Transport Policy for 2010: Time to Decide**

The basic principle – given the ever-increasing demand for transport – should be to optimise the transport systems in such a way as to comply with the needs of expansion and requirements of sustainable development. The modern system must be sustainable from the economic, social, and ecological points of view. The subject of the development of a joint transport policy is to solve the problem of increased road transport, including the negative phenomena accompanying it (high accident rate, increased costs of congestions, harmful

impact on the environment and public health, etc.), and the decline in usage of more ecological modes of transport.

To address the problem, the White Paper proposes the following principles considered the most important by the CR:

- Revitalising railways;
- Improving the quality of road transport, including safety improvement;
- Supporting inland waterway transport;
- Balancing the growth of air transport with environmental protection;
- Bringing inter-modality into practice;
- Building the Trans-European transport network;
- Developing high-quality urban transport;
- Focusing research and technologies on the needs of clean and efficient transport.

### **1.1.2 Czech Republic Documents**

#### **National Strategic Reference Framework 2007 – 2013**

The NSRF, mentioned in the introductory part, was developed for the period 2007 – 2013. During that time, the CR will converge to the European Union standards (per capita GDP, employment, infrastructure, innovation, and the knowledge economy), and become a competitive and effective economy, this not only within the EU. According to this strategy, priority should be given to interventions aiming at:

- Improving the attractiveness of the country and its regions through the use, development, and improvement of infrastructure;
- Supporting enterprise, innovation, and the knowledge economy by enhancing research capacity, technological development, educational activities, business infrastructure, and innovation networks, including the usage of new information technologies;
- Creating and improving jobs through investment into the development of new activities and human resources development;
- Long-term sustainable development in all three dimensions, i.e., environmental, economic and social;
- Increased economic performance from tourism by utilizing and further developing the available potential.

The global objective of the NSRF reflects the basic principles of the European Union economic and social cohesion policy, and respects the basic strategic documents of the CR. The themes of the Lisbon Strategy having a significant impact on the economic growth and competitiveness of the country and its regions, such as research, development and innovation; creating the conditions for the development of enterprise and the improvement of the business environment; creating the conditions for increasing employment, resolving the problems of population ageing; improving the environment; and supporting infrastructure were organically incorporated in the objectives and priorities of the NSRF.

In a post-industrial society, key factors of sustainable growth are systematic development of human potential (strengthening the ability to acquire new knowledge and skills, flexible labour market, and adaptable labour force), development of research and development potential, and co-operation of research centres with the business sector in applying the results of research and development (hereinafter “R&D”) in practice, thus supporting the development of an innovation environment accessibility of transport and communication networks and connections, especially making modern technologies accessible. Given the significant regional variability, local conditions must be taken into account when making the interventions (natural, economic, social and cultural), and the strategy must focus on systematic development of the local potential. The objective is to achieve a balanced and harmonious development of the entire CR territory.

One of the factors (strategic objectives) contributing to this objective is ensuring high-quality physical environment. That will be implemented through the strategic objective ***Attractive environment***, which in the sphere of transport will be implemented under the priority ***Improving Accessibility by Transport***

### **Sustainable Development Strategy**

OP Transport is based on an important strategic document the **Sustainable Development Strategy**, i.e. such a development that will ensure a balance between the three basic pillars: social, economic, and environmental, as it is symbolically expressed in its slogan: People, Prosperity, and the Planet. The Sustainable Development Strategy is a binding document for the preparation of other governmental strategic documents. Sustainability is based on the fulfilment of three basic goals:

- Social development respecting the needs of all;
- Maintaining a high and stable level of economic growth and employment;
- Effective protection of the environment and environmental-friendly usage of natural resources.

The need for sustainable development is not evoked only by environmental limits, but also by economic and social limits arising from increasing competitive pressures of the global economy. The Sustainable Development Strategy is not an unalterable document; it is conditioned historically and it will develop over time, by being supplemented and changed. Its primary role is to point out, in due time, to existing and potential problems which could threaten the Czech Republic’s efforts to achieve sustainable development, to initiate measures which would counter those threats, or at least mitigate their impact, and remedy their potential consequences most effectively.

### **The National Reform Programme of the Czech Republic based on the Lisbon Programme**

At the Lisbon European Council Summit in March 2000, a process was launched in the European Union, with the objective to transform the EU into the “most competitive and dynamic knowledge economy capable of sustainable growth, with more and better jobs, and enhanced social cohesion”, by 2010.

In order to gradually implement the Lisbon Strategy Objectives, the CR has announced the National Reform Programme, for 2005 – 2008 (hereinafter “NRP”).

The transport sector is mentioned in those parts of the document which concern micro-economic tasks, especially the field of transport infrastructure, intelligent transport systems, increasing the share of railway transport on the transport market, and the development of combined transport.

### **Transport Policy of the Czech Republic for 2005 – 2013**

The basic strategic document of the transport sector for the upcoming period is the Transport Policy of the CR for 2005 – 2013 (hereinafter “TP CR”), approved by the Government Resolution No. 882 of 13 July 2005.

The basic themes dealt with by the TP CR are expressed in its global objective: *“To create conditions for providing high-quality transport, focused on its economic, social, and environmental impacts, within the framework of the principles of sustainable development, and to lay realistic foundations for initiating a change in the proportions of various modes of transport”*; as well as in the related specific objectives leading to the following priorities:

- Achieving a suitable distribution of transport work among various transport modes by ensuring equal conditions on the transport market;
- Ensuring high-quality transport infrastructure;
- Ensuring financing in the transport sector;
- Increasing transport safety;
- Supporting the development of transport in regions.

The given priorities are related to cross-cutting guidelines applied in the TP CR:

- Implementing the results of R&D and new progressive technologies, including telematics;
- Equal opportunities and social policy;
- Creating the conditions for maintaining the competitiveness of Czech transporters in the open market environment;
- Reducing the impact of transport on the environment and public health, in line with the principles of sustainable development.

The period covered by the TP CR corresponds to the EU programming period, which is a positive feature, given that it is also drafted in the context of the country’s international obligations.

The objective of the priority “Achieving suitable distribution of transport work among various modes of transport by ensuring equal conditions on the transport market” is to achieve involvement of each transport mode so that it is used in those market segments where it is the most effective. Achieving objectives in the priority “Ensuring high-quality transport infrastructure” is the necessary condition for realization of transport needs. Ensuring financial sources for transport infrastructure is the subject of the priority “Ensuring financing in the transport sector”. Internal and external safety of transport is also a significant problem and

therefore it is dealt with by the priority “Increasing transport safety”. The priority “Support for the development of transport in the regions” should help in creating transport policies on the regional and municipal level.

Achieving the objectives under each priority will be carried out through the following measures for each transport mode. These measures can be of judicial, economic or informational nature.

Measures for fulfilling the cross-sectional tasks in transport according to the TP CR are primarily the following:

- Support for reduction of transport intensity, especially in freight transport;
- Elaboration of the concept of a network of public logistic centres and support of its development through direct investment grants;
- Harmonization of transport market conditions;
- Creation of conditions for change of the intersectional division of transport work for the benefit of transport means friendlier to the environment.

In the field of railway transport, primarily the following measures shall be implemented, among other:

- To finish the transformation process of the railway sector, to require and control due respect of legal rules of non-discriminatory and transparent access to traffic routes;
- To ensure development of railway network in line with international obligations and cohesion of regions;
- To introduce safety rules according to TSI, modernize and introduce safety devices and enhance safety parameters on crossings.

In the field of road transport, primarily the following measures shall be implemented:

- To introduce performance tolls for use of road infrastructure;
- To introduce measures leading to minimization of congestions (not only through extensive infrastructure development);
- To ensure development of road network with regard to international obligations and cohesion of regions and with regard to minimizing impact of the existing infrastructure on lives of inhabitants in concerned municipalities.

In the field of inland waterway transport, primarily the following measures shall be implemented:

- To solve navigability problems on waterways used for transport and other waterways;
- To create new legal regime for operating the public ports, including setting up quality standards for access to port service market.

In the field of public mass transportation, primarily the following measures shall be implemented:

- To amend legal and economic conditions of transport serviceability with rail transport as the backbone of transport system;

- To support introduction of the ITS;
- To support competitive environment in public passenger transport.

Simultaneously, a system of indicators was developed for evaluation of the TP CR objectives fulfilment. Their values will be checked in 2010 and 2013 and compared with the situation in 2005.

The TP CR is the basic key framework for development of transport sector. Each area is then developed in consequent documents, to the most important of which belong the Mid-term strategy of development and financing of transport infrastructure and the Support Strategy for Territorial Transport Serviceability.

### **The Strategic Plan of the City of Prague, approved in 2000 by the Council of the City of Prague**

This plan covers the period to 2006; when the final draft of this document was being prepared, the fourth update of the Strategic Plan of the Capital City of Prague was submitted for approval. After the approval process is finished MC will be informed about strategic goals related. In general main strategic objectives are unchanged i.e. capital city of Prague intends to continue with modernization, development of transport infrastructure as a basis for economic growth with respect to the sustainable development. To reach this objective the Integrated transport system which favours rail based public transport (metro, trams, commuting trains) will continue to improve. Measures to influence individual car transport to reduce its attractiveness will be implemented as well as measures aimed to reduce negative impact of transport on environment.

The Transport and Technical Infrastructure section contains:

#### ***Implementation of constructions and measures related to integration to European transport networks***

- Construction and renovation of transit railway corridors in the CR, and their connection with Prague Central Station (New Connection and Modernisation of the Prague Central Railway Station – Eastern Part constructions).
- Construction of a ring road connecting all motorways and roads heading to Prague (included in the programme “Ring Roads Serve and Protect”).
- Development of Prague Ruzyně Airport to a sufficient capacity.

#### ***Other strategic objectives***

- ***Reduction of automobile traffic in city streets, the restrictions must increase in stringency closer to the city centre;***
- ***The decisive role and importance of rail-based types of transport in an integrated system, and enhancing interest in using them.***

Other important basic Czech documents, on which OP Transport builds, include:

- **Regional Development Strategy of the Czech Republic for 2007-2013 (approved by the Czech Government in its Resolution No. 560/2006)**
- **Economic Growth Strategy of the Czech Republic (approved by the Czech Government in its Resolution No. 1500/2005)**

- **Regional Development Policy of the Czech Republic (approved by the Czech Government in its Resolution No. 561/2006).**

## **1.2 Analysis of the Current Situation in the Transport Sector**

Due to its position in Central Europe, the CR is well-advantaged to make the most of its good transport accessibility. Necessary precondition for making use of this advantage is the existence of high-quality transport infrastructure corresponding to the increasing demand, which would also comply with the requirements of sustainable development. The country is indeed covered with a dense network of railways and roads, but it does not always meet the standards expected from transport.

The function of transport as an important factor of the national economy was further enhanced after the country's accession to the EU. The 2005 CR per capita GDP reached USD 17,426, in terms of purchasing power parity, which corresponds to 73 % of the EU 25 level. In 2005, the year-to-year increase of the Czech economy amounted to 6.1 %, reaching a historic high of 6.9 % in the 4<sup>th</sup> quarter of 2005. Other new Member States also experience economic growth, leading to an increased demand for transport. A not-insignificant portion of this increased volume of traffic, especially in the carriage of goods, passes through the CR. All of the above calls for higher investment, especially into backbone transport networks. High-quality transport infrastructure and effective transport are preconditions for attracting foreign investors, developing tourism, and, in general, for increasing employment levels. In line with our undertakings arising from our EU membership, we must ensure the top-quality connection of transport networks to the European transport network.

The transport sector does not only have an indirect effect on economy, but also a direct effect on employment and GDP generation. In 2003, the transport sector accounted for some 4 % of the GDP, and especially road transport has a constantly increasing tendency. The number of enterprises registered in the CR in the road transport sector is also increasing, with the majority of entities being involved in freight transport.

### **1.2.1 Passenger and Freight Transport**

#### **1.2.1.1 Transport Performance and Volume**

Since 1990 the shares of the various modes of transport have transformed substantially, in relation with a general transformation of the society and the country's accession to the EU. The greatest decline in performance, and the volume carried, was noted by the railway, by public road transport (passenger), and water transport. On the other hand, transport by heavy trucks over 12.5 tonnes increased substantially, as well as individual passenger and air transport. The performance of all the transport modes with a negative impact on the environment increased.

#### **1.2.1.2 Passenger Transport**

In passenger transport as a whole, the transport performance increased from 1995 to 2004 by approximately 17 %, but only by about 5 % in the public transport sector. The division of transport work between public passenger and individual passenger transport (IPT) approached the ratio of 1:2. Within municipalities, the ratio of public passenger transport to individual passenger transport changed from the ratio of 80:20 in the 1980s, to today's approximately 55:45 which is stabilized. This situation significantly contributes to degradation of the

environment in highly urbanised areas, this being the most visible in the City of Prague. Nevertheless, the share of people transported by mass transport in municipalities is high compared to other countries and in order to retain at least such a ratio in future, it is necessary to improve the system of mass transport including the infrastructure.

An important step towards supporting mass public transport was the enactment of the basic transport serviceability obligation, which is ensuring adequate transport on all days of the week for reasons of public interest contributing to the sustainable development of an area. This is ensured by the Regions and the State by placing orders for mass public transport, and an increasing trend can be observed in this regard.

The performance of railway passenger transport as a whole has dropped since 1990. The number of passengers carried in 2004 was 20 % lower than in 1995. Almost the totality of railway passenger transport is still provided by the national railway company the Czech Railways (České dráhy). In 2004, six railway carriers held licences for public passenger transport. At present, transport performance gradually rises in railway long-distance transport and in suburban transport, especially in places where these were integrated with bus and city transport. A decrease can be observed in those parts of regional transport where full integration has not been carried out yet.

The number of people carried by public bus transport dropped by 35 % from 1995 to 2004. In the last three years, however, the numbers of passengers carried, as well as the transport performance (passenger-km) were stabilised. Air passenger transport continues to grow significantly. The number of transported passengers grew by 290 % from 1995 to 2004. Prague Ruzyně Airport accounts for the vast majority of the transport volume.

The significant change in ownership relations has brought about a change in the employment structure, and a new spatial distribution of the departure and arrival transport routes of passenger transport. The constituting components of the price of passenger transport are changing (the operating costs of passenger transport are increasing), the prices of fares are gradually rising and volume of equalization payments is decreasing which leads to a negative indirect support of individual passenger transport development. From 1995 to 2004, the number of passenger cars increased by more than 20 %, reaching more than 3.8 million. The situation is especially critical in Prague, with one car per 1.97 persons in 2005, whereas the national average was 2.59. In 2002, that indicator for the countries comprising the EU 25 ranged at around 2.16.

As for the rate of growth in the intensity of road traffic since 1991, Prague has reached values which have no match in Europe, perhaps with the exception of certain cities in the eastern part of Germany. Automobile traffic – especially IPT – grew between 1991 and 2004, from 7.3 million car km/day to 19.7 million car km/day. Compared to the increase of the intensity of traffic on motorways and roads in the CR, the increase is 1.5 times higher.

High degree of motorisation in the CR, as compared to the neighbouring countries, is shown in Table 1, which represents the share of IPT in the overall performance of passenger transport, and an index of the transport intensity of passenger transport. This was calculated as the ratio of the overall performance (passenger km) in passenger transport and the GDP level in each country in EUR related to 1995 price levels.



**Table 1: IPT shares in overall passenger transport performance and the transport intensity in passenger transport in selected countries in 2004**

	CR	Belgium	Austria	Germany	France	Hungary	Italy	Poland	Slovakia
IPT share (%)	76,5	81,3	77,5	86,1	86,2	61,9	83,1	78,9	70,6
Index passenger km/GDP	98,0	96,3	91,4	93,6	94,9	72,1	101,8	92,1	73,1

Source: Eurostat

**Table 2: Comparison of passenger transport indicators by transport modes**

	2000	2002	2003	2004	2005	2006
<b>Passenger transport (mil. people)</b>	<b>4 897,6</b>	<b>4 957,2</b>	<b>4 989,1</b>	<b>5 016,0</b>	<b>4 974,9</b>	<b>4 976,6</b>
Railway transport	184,7	177,2	174,2	180,9	180,3	183,0
Public bus transport	438,9	406,1	417,0	418,6	388,3	387,7
Air transport	3,5	4,3	4,6	5,8	6,3	6,7
Inland waterway transport <sup>1)</sup>	0,8	0,9	1,1	1,1	1,1	1,1
Urban transport	2 289,7	2 338,7	2 302,2	2 309,6	2 268,9	2 238,0
Public transport in total	2 917,6	2 927,2	2 899,1	2 916,0	2 844,9	2 816,6
Individual passenger transport <sup>2)</sup>	1 980,0	2 030,0	2 090,0	2 100,0	2 130,0	2 160,0
<b>Transport performance (mil. pass. km)</b>	<b>101 004,7</b>	<b>103 635,8</b>	<b>105 983,8</b>	<b>106 939,9</b>	<b>109 875,4</b>	<b>109 805,2</b>
Railway transport	7 299,6	6 596,8	6 517,5	6 590,0	6 666,7	6 921,9
Public bus transport	9 351,3	9 667,5	9 448,6	8 516,2	8 607,6	9 501,1
Air transport	5 864,7	6 895,0	7 096,3	8 814,6	9 735,7	10 233,1
Inland waterway transport <sup>1)</sup>	7,7	16,6	21,9	21,8	18,1	12,8
Urban transport	14 541,4	15 170,0	15 539,5	15 427,3	16 207,3	13 506,3
Public transport in total	37 064,7	38 345,8	38 623,8	39 369,9	41 235,4	40 175,2
Individual passenger transport <sup>2)</sup>	63 940,0	65 290,0	67 360,0	67 570,0	68 640,0	69 630,0
<b>Average distance carried in total (km)</b>	<b>20,6</b>	<b>20,9</b>	<b>21,2</b>	<b>21,3</b>	<b>22,1</b>	<b>22,1</b>
Railway transport	39,5	37,2	37,4	36,4	37,0	37,8
Public bus transport	21,3	23,8	22,7	20,3	22,2	24,5
Air transport	1 683,6	1 606,7	1 548,1	1 532,9	1 538,1	1 525,1
Inland waterway transport <sup>1)</sup>	9,8	19,4	19,6	20,1	16,3	11,7
Urban transport	6,4	6,5	6,7	6,7	7,1	6,0
Public transport in total	12,7	13,1	13,3	13,5	14,5	14,3
Individual passenger transport <sup>2)</sup>	32,3	32,2	32,2	32,2	32,2	32,2

Notes: The methodology of the statistical surveying of the various modes of transport is so far not unified. In railway transport, these are figures concerning transport in the Czech Republic; in road transport, only for carriers registered in the Czech Republic, but they include the distance travelled abroad in international transport. For air transport, the figures also include the foreign sections of the journey.

1) Leisure travelling mainly

2) Expert estimate

Source: MoT CR

**Table 3: Prognosis of performances in passenger transport (Czech carriers data only)**

Indicator	Reality	Estimate	Prediction		Prognosis	
	2006	2007	2008	2009	2010	2020
<b>Passenger transport</b>						
<i>Passenger transport Total (mil. pass.)</i>	4 975.5	5 070.7	5 121.8	5 181.8	5 249.1	6 788.8
<b>Railway transport</b>	183.0	187.1	190.1	196.9	202.1	339.5
<b>Bus transport</b>	387.7	385.5	386.8	380.4	383.2	485.4
<b>Urban mass transport</b>	2 309.6	2 238.0	2 264.0	2 273.1	2 300.7	2 320.2
<b>Air transport</b>	6.7	7.1	7.4	7.8	8.1	17.7
<b>Public transport</b>	2 815.5	2 843.7	2 857.4	2 885.8	2 913.7	3 952.1
<b>IPT <sup>1)</sup> total</b>	2 160.0	2 227.0	2 264.4	2 296.0	2 335.5	2 836.6
<b>Transport performance</b>						
<i>Transport performance Total (bn. pass.-km)</i>	109.8	111.9	113.5	115.4	117.5	163.2
<b>Railway transport</b>	6.6	7.0	7.2	7.4	7.6	12.2
<b>Bus transport</b>	8.5	7.9	8.0	7.2	7.1	7.0
<b>Urban mass transport (ITS)</b>	15.4	15.6	15.9	15.1	15.5	23.5
<b>Air transport</b>	8.8	10.1	11.1	11.7	11.9	16.9
<b>Public transport</b>	39.4	40.9	41.4	41.8	42.5	59.7
<b>IPT <sup>1)</sup> total</b>	68.4	71.0	72.1	73.6	75.1	103.6
<b>Shares on transport performances</b>						
<i>Shares on transport performances</i>	36.58	36.57	36.45	36.24	36.14	36.54
<b>Railway transport</b>	6.30	6.25	6.32	6.42	6.48	7.50
<b>Bus transport</b>	8.65	7.05	7.01	6.26	6.06	4.29
<b>Urban mass transport (ITS)</b>	14.32	12.30	14.21	13.31	13.40	13.45
<b>Air transport</b>	9.32	9.05	9.80	10.15	10.15	10.35
<b>IPT <sup>1)</sup> total</b>	63.42	63.43	63.55	63.76	63.86	63.46

Notes: 1) Expert estimate

Source: MoT CR

In passenger railway transport, an increase in performance is expected due to a better integration of this mode of transport into the entire passenger transport system. However, the precondition for this is to create and expand, both functionally and territorially integrated transport systems organised by the Regions, including their linking to the system of transport services ordered at the national level, and links between the various regional systems. In these integrated systems, railway is increasingly seen as the backbone of the transport infrastructure, onto which other modes of transport are connected, including individual transport (P+R parking lots). In areas where it does not perform the role of such backbones, railway transport is no longer justified both economically and ecologically and will be gradually reduced. The backbone network should therefore be defined by the mid-term plans of transport serviceability, which would serve as the foundation for planning railway infrastructure development, from the point of view of passenger transport needs, and will be one of the inputs for determining priorities of railway infrastructure development, simultaneously resolving the problem of the excessive railway network density.

Differentiation of various transport modes is also a related topic (pedestrian areas, etc.), which the public find very attractive. An increased integration of railway transport into mass public

passenger transport in larger urbanised areas will be supported. Where suitable conditions allow, the introduction of systems combining tramway and railway transport (“tram-train”) will be supported, with the aim of bringing railway transport closer to the sources and destinations of journeys. In terms of long-distance transport, the completion of the upgrading of further sections of the railway corridors will help enhance the competitiveness of railway transport.

The gradual increase of regular bus transport will also be enabled, by its inclusion in integrated transport systems, where capacity routes will fill in the missing segments of the railway transport backbone network. Bus transport will cover the territory and tie into the backbone network.

In terms of longer-distance transport, we can expect a further large increase in individual passenger transport, especially on those routes where railway infrastructure is not upgraded. In spite of the fact that the great increase in IPT causes problems in certain parts of the road network, the popularity of this mode of transport is increasing. Individual transport is growing not only to the detriment of public transport, but also to the detriment of pedestrian transport in cities. An important factor of the growth in individual transport is the pressure to speed up the suburbanising process (“city sprawl”).

The development of transport infrastructure will need to be adapted to the expected increase in the performance of passenger transport, taking into account also the impact on the environment. In case of insufficient financing for the more environment-friendly modes of transport, the negative impact of increased traffic on the environment may increase. It is therefore necessary to plan the development of transport infrastructure applying a multimodal approach. The attractiveness of urban mass transport will increase significantly also thanks to measures designed to increase the reliability, regularity, and accessibility of mass public passenger transport, the first results of which can already be seen today.

### **1.2.1.3 Freight Transport**

After 1990, fundamental changes occurred in the entire freight transport sector. The sectors of road and waterway freight transport were liberalised the most rapidly and in full. The number of public road transport companies increased by nearly 60 % between 1995 and 2004, to 51,987. The sector of road freight transport is the only one seeing, with minor fluctuations, a constant increase in performance, by 47 % between 1995 and 2004. The highest volume of transport commodities in road transport is represented by mineral resources (37 %), followed by construction materials (14 %) and food (9 %).

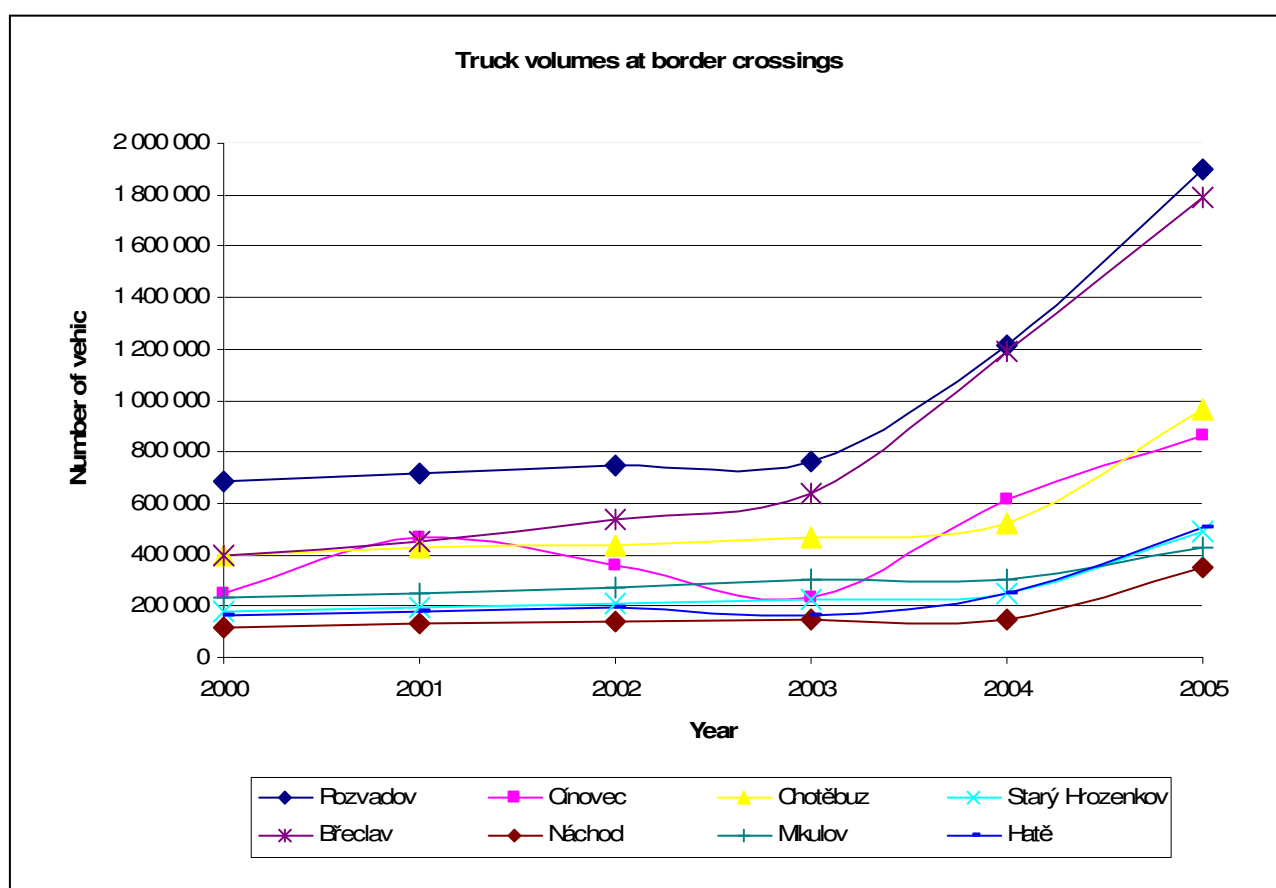
The number of trucks of all categories registered in the country keeps growing; between 1995 and 2004 it increased by nearly 83 %, to a total of 371,436 trucks. This number, as related to the GDP, exceeds by several times the EU 15 figures. As in the other new EU Member States, this is primarily caused by lower prices of road carriers in these countries, so that, for example, the vast majority of road freight between the CR and Germany is performed by trucks registered in the CR. This was confirmed by the 2004 directional survey, when the share of trucks registered in the CR, crossing the Czech – Saxon border, amounted to 73 %, whereas trucks registered in Germany only accounted for 10 %. Presently, road transport accounts for approximately 75 % of freight performance in the CR (2004), with railway accounting for around 24 %.

Especially in 2004, a step increase in transit road transport occurred, caused by the cancellation of the so-called eco-point system in Austria at the beginning of the year, and then, above all, with the 1 May 2004 EU expansion. This had the effect of eliminating the waiting time at the border for international truck transport (hereinafter “ITT”), and the

disappearance of limits in the form of entry permits for ITT. It was further enhanced by increased foreign trade with neighbouring countries. Furthermore, the increase in transit road traffic in the CR was due to the toll charged on heavy trucks on motorways, which was introduced in Austria, in 2004, and in Germany a year later. The CR has thus become an alternative for transit ITT, which had until then passed through other countries.

This leads to a situation where the major part of freight transport intensity increase is concentrated on several main routes and around border crossings. This situation must be addressed both by introducing toll on motorway sections for heavy freight vehicles, and by creating better conditions for transferring freight transport to more ecological modes of transport.

Due to the increase in transit freight transport, the number of trucks at certain border crossings rose extremely after 1 May 2004, as shown in the statistics presented below. In total, the strongest transport streams go through crossing points on the Czech – German border (approx. 40 % of transport volume), followed by the Czech – Slovakian border crossings (approx. 30 %).



Source: Until 2003 – CGD; from 2004 – Foreign and Border Police Service Directorate

The decline in railway freight transport performance has not ceased: between 1995 and 2004, transport performance dropped by 33 %. In the 1990s, the drop was caused, above all, by structural changes in the economy, which led to a slow-down in demand for transport in the most transport-intensive sectors of the economy. Railway transport is still heavily dependent on transport of mass substrates. This can be seen on realized volumes in 2006, which are dominated by solid fuels (41 %), followed by iron ore and scrap (15 %). Concerning transported volumes in international transport, the most important are links with Poland and

Slovakia because of the high share of import and export of raw materials and fuels. However, the most burdened crossing is Decin on the Czech-German border, where passes approx. 85 % of the railway transport volume between the CR and Germany.

The continuing decline of railway transport share is caused, above all, by the increased competitiveness of road transport, on the one hand, and on the other hand by the incomplete liberalisation of the railway sector, where market conditions have not yet had a chance to fully develop. The quality of services and price levels of railway freight transport thus, in the vast majority of cases, are lagging behind road freight.

**Table 4: Freight transport performance and the shares of various modes of transport in selected countries in 2003**

	CR <sup>1)</sup>	Netherlands	Austria	Germany	France	Hungary	Italy	Poland	Slovakia
Performance (bn. t km)									
Roads	43,447	84,161	37,044	310,103	205,284	25,152	211,804	111,826	22,566
Railway	14,866	5,025	18,957	95,421	40,701	9,09	22,761	49,972	9,463
Inland waterways	0,063	42,225	1,753	64,096	8,905	2,11	0	0,327	0,088
Total	58,376	131,411	57,754	469,62	254,89	36,352	234,565	162,125	32,117
Share									
Roads	74,43%	64,04%	64,14%	66,03%	80,54%	69,19%	90,30%	68,98%	70,26%
Railway	25,47%	3,82%	32,82%	20,32%	15,97%	25,01%	9,70%	30,82%	29,46%
Inland waterways	0,11%	32,13%	3,04%	13,65%	3,49%	5,80%	0,00%	0,20%	0,27%

Source: Eurostat

Table 4 shows the negative situation in the distribution of freight work in favour of road transport, and a comparison with certain other EU Member States. The lower share of inland waterway transport in the CR is primarily due to the geographic situation, which to a significant extent limits the inclusion of this mode of transport into transport networks. This is also the reason for the relatively higher share of railway freight transport, as compared to the EU 15 average, which was 14.8 % in 2004.

In railway transport, the decisive part of transport performance is carried by the Czech Railways (*České dráhy a.s.*) (in 2004, 96 % of the total performance in railway freight). At the end of 2005, 19 operators had licences for operating freight railway transport on nationwide and regional railways, but only 14 of them actually operated it.

Waterway transport has noted variable performance. Its share in the freight market is a mere 0.6 % (year 2004). This is primarily due to the geographic location of the country, and the unreliability of the Elbe waterway, which depends on natural conditions. Due to that fact, the available vessel capacity is dropping. A total of 25 shippers operated inland waterway freight shipping (as of 2004). Transported volumes ranking in 2006 was raw materials (42 %), animal feed (20 %) and cereals (19 %).

Combined transport (hereinafter “CT”) sees a permanent growth in the transported volume, especially in connection with the transport of sea containers from and to west-European ports. The total gross weight of containers carried by rail increased from 1995 to 2004 by 274 %. In that year, a total of 3,623 thousand tonnes of goods were carried in containers, travelling 922,722 thousand t-km. whereas rail CT shows an increasing tendency, CT on inland waterways has been stagnating, with minimum volumes. For ecological reasons, the route Ro - La Ceske Budejovice - Villach was operated in 1993 – 1999, and from 1994, the route Lovosice – Dresden, in order to carry trucks by railway. With the country’s accession to the EU, ITT was liberalised and customs checks on borders removed. In response to these

changes, road carriers lost interest in the Ro – La system, and the operation of the Lovosice – Dresden route was ceased in 2004.

**Table 5: Comparison of freight transport indicators by transport modes (Czech transporters data only)**

	2000	2002	2003	2004	2005	2006
<i>Total freight transport (thou. tonnes)</i>	<i>523 249</i>	<i>577 390</i>	<i>551 511</i>	<i>565 365</i>	<i>560 037</i>	<i>554 994</i>
<b>Railway transport</b>	98 255	91 989	93 297	88 843	85 613	97 491
<b>Road transport</b>	414 725	474 883	447 956	466 034	461 144	444 574
<b>Inland waterway transport</b>	1 907	1 686	1 277	1 275	1 956	2 032
<b>Air transport</b>	16	18	20	21	20	22
<b>Oil pipelines</b>	8 346	8 815	8 962	9 192	11 305	10 875
<i>Transport performance (mil. t-km)</i>	<i>58 953</i>	<i>63 206</i>	<i>64 795</i>	<i>63 459</i>	<i>61 396</i>	<i>69 253</i>
<b>Railway transport</b>	17 496	15 810	15 862	15 092	14 866	15 779
<b>Road transport</b>	39 036	45 059	46 564	46 010	43 447	50 369
<b>Inland waterway transport</b>	771	587	508	409	779	767
<b>Air transport</b>	38	32	42	46	45	47
<b>Oil pipelines</b>	1 612	1 717	1 820	1 902	2 259	2 291
<i>Total average distance carried (km)</i>	<i>112.7</i>	<i>109.5</i>	<i>117.5</i>	<i>112.2</i>	<i>109.6</i>	<i>124.8</i>
<b>Railway transport</b>	178.1	171.9	170.0	169.9	173.6	161.8
<b>Road transport</b>	94.1	94.9	103.9	98.7	94.2	113.3
<b>Inland waterway transport</b>	404.3	348.3	398.0	321.0	398.5	377.3
<b>Air transport</b>	2 350.6	1 766.3	2 093.6	2 156.6	2 296.4	2 142.2
<b>Oil pipelines</b>	193.1	194.8	203.1	206.9	199.8	210.7

Source: Ministry of Transport

**Table 6: Freight transport performance prognosis (Czech carrier data only)**

Indicator	Reality	Estimate	Prediction		Prognosis	
	2006	2007	2008	2009	2010	2020
<i>Transport of goods – total (thou. tons)</i>	<i>544,1</i>	<i>560,1</i>	<i>568,7</i>	<i>579,2</i>	<i>592,3</i>	<i>666,0</i>
<b>Railway transport</b>	97,5	86,0	88,1	90,4	96,0	153,6
<b>Road transport</b>	444,6	472,1	478,5	486,7	494,0	508,7
<b>Inland waterway transport</b>	2,03	1,95	2,02	2,10	2,19	3,59
<b>Air transport</b>	0,02	0,03	0,04	0,06	0,09	0,13
<i>Transport performance – total (bn. tkm)</i>	<i>67,0</i>	<i>58,4</i>	<i>58,2</i>	<i>58,0</i>	<i>58,2</i>	<i>57,1</i>
<b>Railway transport</b>	15,8	14,2	13,5	13,3	13,5	19,2
<b>Road transport</b>	50,4	43,3	43,8	43,9	43,8	36,1
<b>Inland waterway transport</b>	0,77	0,81	0,81	0,78	0,82	1,62
<b>Air transport</b>	0,05	0,05	0,05	0,05	0,05	0,10
<i>Shares on transport performance</i>						
<b>Railway transport</b>	23,56	24,38	23,20	22,91	23,14	33,64
<b>Road transport</b>	75,22	74,15	75,32	75,66	75,35	63,33

<b>Inland waterway transport</b>	1,14	1,39	1,39	1,35	1,42	2,84
<b>Air transport</b>	0,07	0,08	0,08	0,09	0,09	0,18

Source: MoT CR

Forecasts indicate that demand for road freight transport will grow, and alongside also demand for a greater capacity of the road network. That will entail an increased burdening of the main roads with freight transport, and increased costs of maintenance, as well as higher pollution and a greater accident rate. Elimination of these negative influences would require, aside from the completion of the missing segments of the motorways and expressways, a greater integration of railway, water, and combined transport. In recent years, however, the trend has been the opposite, and the share, as well as the overall performance, of railway and water transport has been dropping continuously.

The increase in the share of road transport (high growth) to the detriment of railway transport (slight drop) is due to the development of logistics technologies, with large distribution centres and industrial zones being built solely with regard to good accessibility by road. New logistical processes require just-in-time deliveries with minimum transport time, and the transport of smaller quantities at shorter intervals. However, road transport keeps on clashing with limits, such as insufficient capacity of road carriers caused by lack of qualified drivers.

With the present logistical chains, the shift of transport streams to railway and inland waterway transport can be achieved through combined and multimodal transport. Its greater application on the transport market, however, will not be possible without public support. The distribution of present CT transshipment stations in the CR does not entirely ideally respect the needs of the regions. The present CT chains can compete with direct road transport only in the exceptional cases of carriage to large sea ports. This adverse trend in the division of transport work must be influenced by the concentration of transport volumes by, among other things, legislative and financial support for the establishment of public logistical centres (hereinafter “PLC”) and CT transshipment stations and construction of industrial tracks in industrial zones and logistic centres. The public interest or the benefit derived from supporting these, lies in having the best and most efficient transport serviceability of a specific area, while reducing the negative impact of the growing road transport on the environment and public health. PLCs can have a positive impact on the generation and direction of traffic volume in freight traffic, and can help create optimum conditions for involving railway and inland waterway transport.

The forecast of increase of inland waterway transport is based on the presumption that the navigation conditions on the Elbe waterway will improve and stabilise, thereby increasing the number of days when navigation is economical, and that the fleet will be upgraded.

### 1.2.2 Transport Infrastructure

In spite of its relatively small area, the CR plays an important role in the European transport system, due to its geographic position in the centre of Europe. A high-quality transport network is the precondition for transit transport not being a burden for the CR, but rather a benefit. This is important primarily from the point of view of the protection of public health, the environment, and competitiveness. High-quality supranational transport network is required, above all, for achieving the integration of the domestic market, the attractiveness of the regions, and their convergence to other EU regions.

The relatively dense network of railways and roads does not correspond in all respects to the transported volume, performance, and relations that have developed in the last ten years. The

technical condition of transport infrastructure, and the related technologies in railway, inland waterway, and combined transport is yet another problem.

Comparing the Czech transport infrastructure with that of EU countries, we can say that, in terms of density, the situation is adequate, with the density being even higher in some cases, for example, in railways. But a greater density of the railway network is not always an advantage. Certain regional lines are not well-suited for freight transport, and in passenger transport they are not able to take over the function of a backbone. These rather represent an economic burden. As far as the overall technical condition and quality is concerned, a substantial portion of the transport infrastructure is inadequate, both due to being technically outdated and insufficiently maintained.

In 2004, investment expenditures to transport infrastructure amounted to 1.7 % of the GDP, and this ratio is increasing slightly. According to the TP CR, it would be optimal to expend some 2.5 % of the GDP on the development of transport infrastructure in the CR.

In 2000, the State Fund for Transport Infrastructure was created (hereinafter “SFTI”). The purpose of the SFTI is to secure financing for the construction, modernisation, repair, and maintenance of roads (pursuant to the Act on the Budgetary Allocation of Taxes, the financing of Class II and III road infrastructure was transferred to the regions, as of 2005) and motorways, the construction and upgrading of important inland waterways, and the construction, upgrading, repair and maintenance of national and regional railway routes. The SFTI’s income is constituted by road tax revenue, a part of the revenues from the consumer tax on hydrocarbon fuels and lubricants, and from fees for the use of motorways and certain expressways. However, the largest portion of the SFTI’s income came from the National Property Fund. All these financial resources are far from being sufficient to cover all financial needs of transport infrastructure.

**Table 7: Total investment expenditures on transport infrastructure (in current prices, CZK mil)**

Type of infrastructure	2000	2002	2003	2004	2005	2006
Railway	13 200,3	14 599,7	13 244,0	13 136,6	14 428,1	13 330,5
Road	10 988,0	15 970,7	19 921,8	32 901,8	42 137,0	42 267,5
Inland waterways	402,2	512,9	365,8	367,4	303,0	526,7
Air	992,8	1 191,8	1 652,9	4 803,2	7 045,4	2 013,8
Pipeline	399,2	661,1	587,0	506,3	164,3	709,7
Total	25 982,5	32 936,2	35 771,5	51 715,4	64 077,7	58 848,2

Note: \* Figures for road infrastructure include expenditures on motorways and on Class I, II and III roads

Source: Ministry of Transport

#### Overview of international obligations related to Trans-European networks TEN-T

- Agreement concluded between the MoT CR and Ministry of Transport of Germany of 7 June 1995, on cooperation in further development of the railway connection Prague-Nurnberg;
- Treaty concluded between the CR and Germany of 12 September 2000, on the connection of the Czech D8 highway and the German A17 highway at the border by building a border bridge, the contract entered into force on 1 September 2003;
- Agreement concluded between the Government of the Czech Republic and government of Poland of 20 May 2002, on the connection of the Czech D47 highway and the Polish A1 highway at the Czech-Polish national border;



- Agreement concluded between the MoT CR and the Ministry of transport, post and telecommunication of the Slovak Republic of 14 December 1999, on cooperation in preparation and implementation of railway lines modernisation;
- Agreement concluded between the MoT CR and Austrian Ministry of public economy and transport of 7 June 1995 on cooperation in further development of rail transport;
- Memorandum of the MoT CR and Austrian Ministry of transport, innovation and technologies of 9 November 2005, on cooperation in preparing and implementing the connection of the Czech expressway R52 and the Austrian highway A5 at the Czech-Austrian national border.

### **1.2.2.1 Railways**

The operational length of railway lines in 2004 was 9,612 km, of which 2,982 km (31 %) were electrified lines, including the main corridors. The length of single-track railways was 7,745 km, and for double- and multi-track 1,866 km. Of the total length of the network, 9,511 km of tracks were normal gauge, and 101 km narrow gauge. Pursuant to the Act No. 266/1994 Coll. on Railways, the public railway network is administratively divided into national and regional railways. This division is important with respect to the required technical indicators of railways, and on the declaration of their significance for the State, for example, in situations of crisis. The list of railway lines classified as regional was defined by Czech Government Resolution No. 766, of 20 December 1995. The density of the railway network is 0.122 km of railway tracks per 1 km<sup>2</sup>. Nearly the entire network of public railways is owned by the State and administered by the Railway Infrastructure Administration, state organisation – (hereinafter “RIA”).

#### **1.2.2.1.1 Problem Description**

Overall, it can be said that the technical conditions of the railway network, and in some cases also the number of connections, do not meet the requirements. Also, the on-going renovation of the transport route is insufficient. All of the more extensive projects, with a few exceptions, focus on upgrading the corridor lines. Over the long-term, the technical condition has been deteriorating, due to the insufficiency of funds invested into railway infrastructure. In many cases, maintaining lines as operational poses a problem. In some cases, long-term closures had to be imposed, due to the line's technical inability of being operated.

The technical quality of railway infrastructure is definitely inadequate, both in terms of track speed, security of railway crossings, station and track security and signalling equipment, structure clearance, track classes, etc. Security and signalling equipment is crucial, because obsolete systems increase the involvement and importance of the human factor. That leads to higher costs of railway transport and, above all, to a bigger risk of accidents. Only 4.5 % of the RIA tracks were equipped with remote station control in 2004, and only 15 % of tracks were equipped with a train-running control.

A negative trend is seen in the increasing number of accidents on level crossings. The decisive causes of this are the standard of security equipment on crossings, and the poor discipline of drivers. In 2004, there were 8,507 level crossings in the RIA railway network. Of those, only 31 % were equipped with security equipment with bars, and a full 57 % was only equipped with warning crosses.

Due to its historical development, the CR has the second-densest railway network in the world, trailing only Switzerland. The high railway network density provides good accessibility of both passenger and freight transport. But, in many cases, the network of stations and stops, does not meet contemporary needs for their locations. In certain areas, the

passenger railway service is inefficient and used only minimally. Regional lines account for only 5 % of the total performance of railway transport, while constituting approximately one-third of the networks, in terms of length. It is therefore necessary to focus on investment into railway infrastructure only where there is sufficient demand, or an expectation of its increase in the future (based on planning of transport serviceability in regions).

The situation, as compared to selected European countries, is as follows:

**Table 8: Density of the railway network in 2004**

Country	Length in km / km <sup>2</sup>	Length in km / thou. inhabitants	% of electrified lines
CR	0,122	0,939	31
Belgium	0,116	0,337	83
France	0,057	0,492	47
Hungary	0,083	0,762	36
Poland	0,065	0,531	59
Slovakia	0,075	0,679	43
United Kingdom	0,068	0,273	32

Source: Eurostat

The overview shows that the CR has a high density of railway networks, but lags behind in their electrification.

An analysis, elaborated as a background study for the Regional Development Strategy in 2002, offers a comparison of various regions; they can be divided into several groups based on their needs and the possibility of their realisation. The Liberec Region had the worst results (absolutely no quality railway connection inside the region and to other regions), followed by the Carlsbad Region (insufficient connection to Prague), and the South Bohemian Region (here, the Corridor IV must be modernised). The group of poorly equipped regions comprised the City of Prague (insufficient parameters of the Prague railway junction, with a negative impact on commuter and city railway transport), the Central Bohemian Region (sections of the Corridors III and IV are missing, which leads to insufficient competition with the motorway infrastructure, especially to the west and north-east), the Zlin Region (missing connection to the Vsetin area, and insufficient connection of the region's capital to the railway corridor, both in terms of road and railway infrastructure), and the Hradec Kralové Region, which has insufficient intra-region links, including a connection to the neighbouring regional capital of Pardubice as one urbanised conglomerate. The Pilsen Region is among those regions with average facilities, with the as yet unrealised upgrading of the Corridor III. The level of regional differences will be taken into account for projects selection.

#### 1.2.2.1.2 Future Plans

Both the European and Czech transport policies see the decisive importance of railway transport in the following three areas:

- Long-distance freight transport of concentrated transport streams, the quality and competitiveness of which must be enhanced by, among other things, adequate measures in transport infrastructure, in order that the most burdened sections do not suffer from undesirable interference with long-distance passenger transport (a great difference in speed, and therefore decreased capacity) and with regular interval commuter transport (short intervals), which lead to a decrease in the speed and

reliability of the freight transport. Furthermore, railway lines must be adapted to the parameters required for freight transport. An important aspect is ensuring door-to-door transport, which is closely connected with logistical processes that must be provided for, by providing support to the establishment of PLC network, CT transshipment stations, and integration of industrial zones into the railway network.

- High-speed long-distance passenger transport, competitive with individual passenger transport as well as air transport.
- Backbone regional transport with concentrated transport streams and with emphasis on priority axes (as defined by the Spatial Development Policy) as an alternative solution to the problem of the insufficient capacity of the road network in densely populated areas.

Concerning the development of railway infrastructure, the TP CR identified the following issues to be the most important to be dealt with:

- **Improve maintenance of transport infrastructure by increase of financial resources for maintenance;**
- **Ensuring protection of corridors and areas for development intentions of transport infrastructure and network of public logistic centres through instruments of landscape planning and of the Spatial Development Policy;**
- **Optimising the railway network as a whole in relation to the real extent of future transport needs taking into account integration of transport modes and re-evaluating its sections with the highest traffic performance in order to enable the creation of three types of long-distance routes:**
  - *Routes mainly used for passenger transport – long-distance and suburban. Freight transport will not be totally excluded. Total exclusion of freight transport could be carried out on selected lines of large railway junctions (e.g. in Prague or Brno);*
  - *Routes mainly used for freight transport retaining regional passenger transport and including selected lines which form part of large railway junctions (Prague and Brno);*
  - *High-speed lines where the timeliness of their construction in the CR has to be monitored in the European context, including refining the routes (tying up modernization of transit corridors with prospective construction of line sections for high speed).*
- **Completing the modernization of transit corridors (the National corridors III and IV, i.e. finishing the European priority projects No. 22 and 23); modernizing the main railway junctions; connecting the transit railway corridors I, III and IV in the Prague railway junction;**
- **Setting conditions for connection of all regions to high-quality railway network by elaborating a concept of improving bad condition of other backbone lines of supra-regional importance, including the selection of the optimal alternative and ensuring their territorial protection against building activities;**
- **Enhancing cross-border ties;**

- **Reconstructing other lines included in international agreements (e.g. the TEN-T network, AGC and AGTC) and other important lines in order to ensure the recommended parameters;**
- **Continuing with the line electrification programme;**
- **Ensuring establishment of standard condition, supporting development of light railway systems and interconnection of railway and tram operation (tram-train) on the remaining nation-wide and important regional lines (with significant role of railway);**
- **Ensuring interoperability and remote operation control as a development in the area of technologies ensuring safe operation of trains, in line with the European trends;**
- **Implementing technical measures to minimise construction impacts on the environment and public health.**

From the capacity point of view, no serious problems are to be encountered on the network of nation-wide and regional lines. Prospectively, problems can arise in surrounding of big cities with interval passenger transport lines, or some single-line sections on corridors and other important lines. In case of further increase in the number of passenger transport trains, some of the most burdened sections might encounter decreased track capacity for freight trains with lower speed. The same interference affecting the track capacity can occur between fast and slow passenger trains.

The European funds, as instruments for the promotion of European interests, newly enable the investing of funds into all of the above-mentioned sectors, in the case of railway transport.

The railway transport priorities are not primarily focused on construction of new lines but on radical modernization of existing lines. Main attention is therefore paid to national lines originally forming part of the TINA European network (Transport Infrastructure Needs Assessment in Central and Eastern Europe; the TINA process was launched in 1995) which now comprise a part of the TEN-T trans-European networks, and especially to lines from the list of the 30 priority European corridors defined in the European Parliament and Council Decision (EC) No. 884/2004. In railway transport this concerns projects No. 22 Athens – Sophia – Budapest – Vienna – Nuremberg/Dresden/Linz and No. 23 Gdansk – Warsaw – Brno/Bratislava – Vienna.

As far as the national corridors are concerned, it is necessary to finish reconstruction of large junctions on the Transit railway corridors I and II. On the TRC III, it is necessary to finish two crucial sections from the Czech-German border to Prague and from Detmarovice to the Czech-Slovakian border. The TRC IV is also not finished on its main section; almost 369 km from Prague to the Czech-Austrian border are to be completed.

In addition, the upgrading of other non-corridor lines of national significance must be ensured, as well as of lines important for high-capacity commuter transport in urbanised areas of international and national significance. Also other rail transport systems in the cities must be developed.

A schematic description of expected future rail traffic intensities is included in the graphic annex to OP Transport.

### 1.2.2.2 Roads

Roads in the CR are divided into motorways, Class I, II and III roads, local and special-purpose roads. Motorways and Class I roads are owned by the State, Class II and III roads by the regions. Local roads are owned by municipalities. There are approximately 128,000 km of roads in the CR, of which motorways accounted for 633 km in 2006, and expressways for 331 km – these are classified as Class I roads, but with parameters necessary for traffic comparable to those of motorways. There were a total of 6,174 km of Class I roads, including expressways; 14,669 km of Class II roads, and 34,128 km of Class III roads. Motorways and certain Class I roads carry the greatest share of transport performance, and connect the most important centres. They include the network of international routes pursuant to the AGR Agreement (European Agreement on Main International Traffic Arteries) which account for 2,601 km. The State owns 6,807 km of roads. After nearly 40 years of the construction of the motorway and expressway networks, these are only approximately 964 km in total length, of the planned nearly 2,200 km. Most of the length of the backbone road transport infrastructure remains to be built:

- Only 44 % of the planned length of the network is operational (59 % of motorways and 31 % of expressways),
- 10 % of the length is being built (15 % of the motorway network and 5 % of the expressway network),
- 8 % is being actively prepared for construction.

In 2006, the density of the road network in the CR was 0.696 km per km<sup>2</sup>, with the official density of the motorway network being 0.008 km per km<sup>2</sup>, but factually, with the inclusion of expressways, it is 0.012 km per km<sup>2</sup>. The EU 15 average in 2004 was 0.99 km of roads per km<sup>2</sup>, and motorways 0.016 km per km<sup>2</sup>, i.e. values comparable to the CR. Developed countries like Germany, with a motorway density of 0.034 km per km<sup>2</sup>, or Belgium, with 0.057 km per km<sup>2</sup>, have a yet denser network.

**Table 9: Density of the road and motorway network in 2004**

Country	Density of state and regional roads		Motorway density	
	km / km <sup>2</sup>	km/ thou. inhabitants	km / km <sup>2</sup>	km/ thou. inhabitants
<b>CR</b>	0.697	5.379	0.007	0.053
<b>Austria</b>	0.402	4.123	0.020	0.204
<b>Belgium</b>	0.455	1.332	0.057	0.168
<b>Finland</b>	0.229	14.826	0.002	0.125
<b>Hungary</b>	0.329	3.031	0.006	0.056
<b>Netherlands</b>	0.311	0.794	0.056	0.144
<b>Slovakia</b>	0.144	1.314	0.006	0.059

Source: Eurostat

The overview shows, on the one hand, a dense road network, and on the other hand, an unfinished motorway network (it must be stressed, however, that in terms of driving conditions, expressways in the CR do not differ from motorways, unlike in most of the other countries assessed, and should therefore be included in the motorway network density, whereby it would exceed 0.012). Incomplete sections of motorways and expressways in certain principal directions are also a cause of a higher accident rate. This fact also leads to the high number of fatalities, which in 2004 amounted to 135.5 per 1 million inhabitants in

the CR, greatly exceeding the EU average of 109 fatalities. The adverse development is due to the high degree of motorisation, without a corresponding improvement in infrastructure, over a short period of time.

#### **1.2.2.2.1 Problem Description**

The design and technical condition of roads is, just like in the case of the railway network, poor in many cases. But contrarily to the modernisation of railway corridors, entirely new transport connections are established when new motorways are built. Unlike on the railway, the transport load carried on roads and motorways has grown steadily in recent years. The real value of money spent on maintenance and repair is, however, dropping. A necessary prerequisite of preventing further deterioration of roads and bridges, of gradual improvement of their condition to a level comparable with the EU countries, and of ensuring safe and smooth driving, is to substantially increase the non-investment funds spent on road and motorway maintenance and repair.

Given the increase of traffic in certain transport directions, discrepancies between demand and existing capacity occur. The construction of new roads in many cases cannot keep up with the increase in traffic, especially due to insufficient funds. An important area is also the construction of ring roads around towns and cities, which are required especially to relieve the negative impact of traffic on the environment, and for safety reasons. The passage of Class I roads through towns and cities has an impact on the flow of traffic on these roads, and significantly deteriorates the quality of the living environment of their inhabitants. Only 45 % of the length of Class I roads has been adapted to normative parameters. Especially on sections leading to road border crossings, the situation on these roads is critical, in terms of the negative impact of the heavy traffic volume on the surrounding environment.

All of the above-mentioned problems are especially evident on the roads in Prague and outskirts. The entire city centre, and the surrounding central belt of the city, is overburdened, and the time when the capacity of these roads will be entirely consumed is drawing near. Congestion occurs regularly, even on roads with the highest capacity, primarily due to the absence of (outer) Prague ring road.

As a consequence of the increased traffic and decreased maintenance, the deterioration of the technical conditions of roads occurs. For example, in 2002, nearly 39.4 % of the length of Class I roads has been rated as inadequate. This ratio has been worsening due to increased traffic. In 2001, a need to invest CZK 4.7 billion was identified, for the repair of Class I road segments in critical condition, but only 3.4 billion was actually spent. An important area is the maintenance of traffic signs and pavement markings, which has an impact on traffic safety.

Overall, it can be stated that the physical condition of Class II and III roads is worse than that of Class I roads. In 2000, 40.3 % of the length of Class II roads was assessed as inadequate. In the case of Class III roads, it was 49.9 % of their length.

The above-mentioned problems worsen the accessibility of regions, thereby reducing their attractiveness, which has an impact on their economic development and employment.

Comparing the regions, the Zlin, Carlsbad and South Bohemian Regions are the worst off. None of these regions yet has a motorway or an expressway. The situation is average in the Moravian-Silesian and Hradec Kralove Regions, suffering from a significant lack of eastern connections (R35) as an alternative to the overburdened D1 Motorway.

In order to provide for bicycle transportation for daily commuting and for increasing daily physical activity according to the requirements of both citizens and the WHO, the CR is missing a high-density network infrastructure of safe bicycle trails separated from the

automobile traffic. Non-existence of sophisticated infrastructure for bicycle transportation limits mass usage of this motor-free transport mode.

#### 1.2.2.2.2 Future Plans

According to the TP CR, road infrastructure development in the future period should be done by implementing the following measures:

- **Improve maintenance of transport infrastructure by increase of financial resources for maintenance;**
- **Ensuring protection of corridors and areas for development intentions of transport infrastructure through instruments of landscape planning and of the Spatial Development Policy;**
- **Continuing construction of the TEN-T network in the CR;**
- **Connecting all regions to a high-quality network of motorways and expressways; in less burdened sections building expressways in stage 1 as half-profile;**
- **Ensuring better solution to passage of transit transport through towns (smoothing down traffic, ring roads);**
- **Ensuring sufficient capacity of road infrastructure in border and sensitive areas;**
- **Focusing on development of systems which would signal temporary local divergences or local traffic regulations directly to the vehicle.**

Investments into road infrastructure must be harmonized with both contemporary and prospective demand for road transport. Saturation prognoses of road network for 2005 and 2015 were elaborated in 2004 as a part of research project financed by the MoT. Saturation prognoses are included as Appendix No. 2.

Primary attention should be paid to the construction of motorways and expressways, to the construction of ring roads around towns and cities on other important roads, and to the construction of other environmental measures. Among priorities belong projects which are part of 30 European priority projects defined by the European Parliament and Council Decision (EC) No. 884/2004/EC. In road transport this concerns the project No. 25 Gdansk – Brno/Bratislava – Vienna.

The priority area, especially important for Prague, is the completion of the outer ring road R1. The cost of the project is expected to be CZK 46 billion, with the expected completion date being 2015. Other, already ongoing or in preparation projects include constructions on motorways: D1 (section Morice – Lipník nad Bečvou, approx. 50 km), D3 (basically the entire section from Prague to the Czech-Austrian border in length of 171 km), D8 (section Lovosice – Řehlovice, 16 km), D11 (section Hradec Králové – Czech-Polish border, 70 km); and expressways: R4 (section Skalka – Trebšov, 52 km), R6 (total of 134 km, primarily connection of Prague and section from Nove Strásece to Germany), R7 (Slaný – Chomutov, 65 km), R35 (Turnov – Olomouc, approx. 165 km, the route is not set), R48 (almost the whole section of 65,5 km), R49 (the whole section of 60 km), R52 (Pohorelice – Czech-Austrian border, approx. 19 km, the route is not yet set) and R55 (almost the whole section of 82 km).

Overall, CZK 400 billion is required to complete the planned 1,200 km long network of motorways and expressways, of which the needs of motorways are estimated at CZK 160 billion.

In line with the above-mentioned analysis of the condition of the road network, we must also focus on improving the condition of the already existing road network. The introduction of telematics systems, both on motorways and expressways, and in towns and cities, will play an important role in improving the usage of the existing road network capacity, increasing its safety, and reducing pollution, especially on the most heavily used sections, as well as measures to improve the conditions for supervision of safety and flow of traffic.

It will be necessary to construct bicycle trails network on the whole territory of the State under co-ordinated responsibility of both central and regional authorities.

A schematic description of expected future road transport intensities is included in the graphic annex to OP Transport.

### **1.2.2.3 Inland Waterways**

Pursuant to the Act No. 114/1995 Coll. on Inland Navigation, inland waterways are divided into monitored waterways and other waterways. Monitored waterways are divided into waterways that are important for transport and special-purpose waterways. Inland waterways are owned by the State and ports by private entities. The MoT is in charge and responsible for the development and modernisation of waterways that are important for transport, which it carries out in agreement with the Ministry of Agriculture.

Only recreational navigation and water transport of local significance occur on special-purpose waterways. In terms of use for water transport, waterways that are important for transport are divided into used and usable waterways.

#### **1.2.2.3.1 Problem Description**

Under the Accession Agreement of the CR to the EU, the Elbe waterway stretch from Pardubice to the German border was included in the TEN-T network, as well as the Vltava river, from Trebenice to its confluence with the Elbe. According to the AGN agreement (the European Agreement on Main Inland Waterways of International Importance), the Elbe waterway belongs to inland waterways of international importance (waterway E – main water line). The AGN agreement obliges the CR to adhere to given parameters when developing waterways. The Elbe-Vltava waterway constitutes a part of the former Multimodal Helsinki Corridor IV. Being the only waterway usable for international transport, it presently suffers from fluctuation of permissible parameters on the regulated watercourse, on a 40 km segment between Usti nad Labem and Hrensko. Without improving the infrastructure, the conditions for navigation on this stretch, some 260 km of the Elbe-Vltava waterway past Usti nad Labem, will continue to be devalued, and a number of ports on this waterway, and water transport in the CR, will continue to have a relatively small share in transport performance. The insufficient headroom on middle Elbe also poses a problem for freight transport. Furthermore, there are numerous waterways of regional importance in the country, which show a clear potential for increasing the financial performance of tourism.

#### **1.2.2.3.2 Future Plans**

Concerning development of inland waterways the TP CR identified the following issues to be dealt with:

- **Solving navigability problems on used important waterways and other waterways, development and modernization of which is a public interest;**



- **Preparing projects for completing construction of infrastructure for recreational cruises on important waterways (in line with the Act No. 114/95 Coll. on inland navigation);**
- **Ensuring provision of flood protection of waterways and ports;**
- **Ensuring safe refuelling and waste treatment in ports, supporting equipping of ports and docks with public functions (barrier-free access, access to ships etc.).**

Priority infrastructure projects in the area of water transport in the CR include, above all, the improvement of the navigation conditions on the regulated stretch of the lower Elbe; completion of the navigability of the middle Elbe to Pardubice, removal of bottlenecks and normalisation of parameters on the existing Elbe-Vltava waterway and completion of the navigability of Vltava in the Trebenice-Ceske Budejovice section. Investments in port infrastructure and in telematics are of crucial significance for the development of water transport, as well as the modernisation of vessels in order to maintain sufficient fleet capacity on the Elbe-Vltava waterway.

However any project will have to comply with relevant EU and CZ legislation (esp. EIA and NATURA 2000) with relevant information to be submitted to the Commission in conformity with the requirements of Article 6 of the Habitats Directive. During the SEA process possible negative impact of specific investment projects (concrete projects “Section Střekov - state border” and “Completion of the navigability on the middle Elbe – lock Přelouč II”) on NATURA 2000 sites was identified. In compliance with request of SEA evaluator, abovementioned concrete projects are not specifically mentioned in the text of the OP Transport. During the preparation of concrete projects within the strategic goals, the projects will be evaluated in compliance with abovementioned legislation. Based on the results of the evaluation the projects might need to be revised before they will be approved for financing. JASPERS initiative will be used during the preparation of major projects.

#### **1.2.2.4 Urban Mass Transport Infrastructure**

In the CR, urban mass transport (hereinafter “UMT”) is provided in 105 towns and cities. It is provided through several modes of transport: bus, tramway, and trolleybus, and in the City of Prague also by underground and railway.

In 2004, the total UMT volume consisted of the following modes, with the following shares: buses 37 %, tramways 32 %, trolleybuses 9.5 %, and underground 21.5 %. The contemporary trend in larger cities, and in the suburbs of larger agglomerations, is the introduction of an integrated mass transport system. Introduction of these systems may be sensible even in less densely populated areas, where they may contribute to a better utilisation of the capacity of individual routes. These systems integrate all available modes of public transport, while preferring rail transport, and allow for an integration of pricing policy. Presently, 13 such systems exist in the CR, in various stages of development. The scope of UMT infrastructure is determined by the zoning plan of each city.

##### **1.2.2.4.1 Problem Description**

Given that the functioning of UMT depends in all cases not only on operational subsidies, but also on subsidies from municipal budgets for investment purposes, it battles in many cases with insufficient financing. In most urbanised areas, public mass transport (hereinafter “PMT”) also has problems in terms of transport infrastructure, as almost all of these systems use municipal roads which also serve for IPT. With an increased intensity of IPT, there is a risk that these roads will be congested and where UMT does not enjoy priority over the rest

of traffic, it is significantly slowed down and collapses occur. These problems are increasing constantly, and are directly proportionate to the size of the city, although even in smaller towns, especially in their historical sections or in older neighbourhoods, significant problems arise.

#### 1.2.2.4.2 Future Plans

The TP CR proposes supporting the development of urban mass transport infrastructure in cities and towns, especially in connection with improvements in the safety of road infrastructure, and with reduction of its impact on the environment and public health. Attention is also being paid to equipment for persons with impaired mobility and orientation.

In the future, a significant increase in the attractiveness of public mass transport is expected, through measures to increase its reliability and regularity. The first results are already evident.

### 1.2.3 Analysis of Accessibility

The primary reason for building new transport infrastructure is to improve accessibility in a specific territory which will bring the following:

1. Savings of time and operating costs of transport route users, elimination of bottlenecks;
2. New socio-economical activities thanks to lowering costs of transport from, to and through territory, including stimulating economic development by making the territory more attractive for visitors and tourist industry.

When deciding on priorities in the field of transport infrastructure development, the State (or public subjects) may take into account the following hierarchy of needs:

1. Ensuring accessibility of all Czech regions in this priority sequence:
  - a. On radial connections related to metropolises (Prague, Brno, Ostrava);
  - b. On tangents if these connections require urgent infrastructure interventions.
2. Ensuring connection of the Czech Republic to European centres in international dialogue;
3. Enabling construction of regional transport networks according to requirements of each region.

When reviewing development needs of transport infrastructure, it is possible to start from regions, basis of which is formed by individual categories of urban areas and urban axes. Accessibility of individual regions can be compared on the basis of density of transport networks and further by accessibility analysis based on travel times between selected regional centres and Prague.

**Table 10: Density of transport infrastructure in particular regions in 2006 (NUTS 3)**

Region NUTS 3 (Regions)	Area (km <sup>2</sup> )	Number of inhabitants (thou.)	Railway (km)	Density (km/km <sup>2</sup> )	Motorways (km)	Express- ways (km)	Density M+E (km/km <sup>2</sup> )
Prague City	496	1 188	*1 523	*0.13	11	23	0.07*
Central Bohemian	11 015	1 175			192	132	0.03
Ceske Budejovice	10 057	630	952	0.09	9	0	0.00

Pilsen	7 561	555	710	0.09	110	0	0.01
Carlsbad	3 315	305	493	0.15	0	12	0.00
Usti nad Labem	5 335	823	1 019	0.19	52	7	0.01
Liberec	3 163	431	553	0.17	0	18	0.01
Hradec Kralove	4 758	550	715	0.15	16	0	0.00
Pardubice	4 518	508	541	0.12	8	0	0.00
Jihlava	6 796	512	651	0.10	93	0	0.01
Brno	7 196	1 133	809	0.11	135	29	0.02
Zlin	5 267	640	600	0.11	8	84	0.02
Olomouc	3 963	590	358	0.09	0	3	0.00
Ostrava	5 427	1 249	673	0.12	0	24	0.00
<b>CZ Total</b>	<b>78 867</b>	<b>10 287</b>	<b>9 597</b>	<b>0.12</b>	<b>633</b>	<b>331</b>	<b>0.01</b>

\* Railway network extent in Prague + Central Bohemian Region monitored together;

**Table 11: Accessibility of large agglomerations (above 50 thousand inhabitants)**

**Central Bohemian Region**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Kladno	70	31	25	0:37	0:34(U)
Mlada Boleslav	50	72	61	1:13	0:39 (U)

(U) Bus connection is measured from the nearest underground line.

**South-Western Region**

**South Bohemian Region (Ceske Budejovice)**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Ceske Budejovice	100	169	139	2:45	2:13/2:30
Tabor - Plana n.L.	50	103	91	1:44	1:30
Pisek - Strakonice	60	138	106	2:17	1:30

**Pilsen Region**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Pilsen	170	114	80	1:39	1:30

**North-Western Region**

**Usti nad Labem Region (area alongside Elbe)**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Usti nad Labem	100	106	92	1:22	1:15
Decin	50	129	114	1:42	1:45

**Usti nad Labem Region (western part)**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Teplíce	50	123(UL)	87	1:40	1:20
Most-Litvinov	100	152(UL)	87(7)/98 (D8)	2:08	1:35
Chomutov-Jirkov-Klasterec n.O.	90	136 (KD)/ 177 (UL)	92	2:27(KD)/ 2:31(UL)	1:52

Data valid for route: (KD) Praha-Kladno-Chomutov; (UL) Praha-Usti n.L.-Most-Chomutov  
(7) by road No. 7;  
(D8) using D8 Motorway.

**Carlsbad Region**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Carlsbad-Ostrov	70	185 (KD)/ 236 (UL)	129	3:26	2:10
Cheb-Sokolov	75	220 (PM)/ 288 (UL)	169 (R6)/ 201 (D5)	3:29(PM)/ 4:23(UL)	3:25

Data valid for route:  
(KD) Prague-Kladno-Chomutov; (UL) Prague-Usti n.L.-Most-Chomutov; (PM) Prague-Pilsen-Cheb  
(R6) Prague-Carlsbad-Cheb; (D5) using motorway Prague-Pilsen.

**North-Eastern Region****Liberec Region**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Liberec-Jablonec	150	140	108	2:43	1:05 (M)

**Hradec Kralove and Pardubice Regions**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus

Hradec Kralove	100	116 (NB)/126 (P)	108	1:40/1:32 P	1:40
Pardubice	100	104	114	0:53	2:21

Data valid for route:

(NB) direct train Praha-Nymburk-Hradec Kralove; (P) using Pendolino train and transferring in Pardubice.

### **South-Eastern Region**

#### **Vysocina Region (Jihlava) and Brno**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Jihlava	50	163	130	2:26	1:35
Brno	400	255	202	2:23	2:30

### **Central Moravia Region**

#### **Olomouc and Zlin Regions**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Olomouc	100	250	240/284(D1)	2:15	4:10
Prostejov	50	279	241/266(D1)	2:59 (P)	3:47
Prerov	50	272	263/287(D1)	2:49 (P)	NA
Uherske Hradiste	50	323	279	3:43 (P)	3:50
Zlin-Otrokovice	100	300	288	3:13 (P)	3:55
Vsetin-Valasske Mezirici	55	346	316	4:10 (P)	NA

Data on road distance is valid for the shortest route / the fastest route on motorway (D1);

Travel time by train: (P) using Pendolino train and transferring in Olomouc.

NA – direct bus connection is not established

### **Moravian – Silesian Region**

#### **Moravian – Silesian Region (Ostrava)**

Agglomeration	Number of inhabitants (thou.)	Distance (km)		Travel time (hours : minutes)	
		Rail	Road	Train	Bus
Ostrava	310	376	334/376(D1)	3:19	5:20
Opava-Hlucin	75	372	302/372(D1)	3:56	NA
Novy Jicin-Koprivnice	50	330/388(P)	303/346(D1)	4:40/4:04(P)	NA
Karvina-Havírov	200	379	359/411(D1)	3:49 (P)	NA
Frydek-Místek-Trinec	125	392	358/399(D1)	4:56	NA

Data on road distance is valid for the shortest route / the fastest route on motorway (D1);  
 Travel time by train: (P) using Pendolino train and transferring in Ostrava.  
 NA – direct bus connection is not established

**Table 12: Indicator “Equivalent Straight-Line Speed” for the above mentioned connections**

Agglomeration	ESS 2006		ESS 2013	
	<i>Railway</i>	<i>Road</i>	<i>Railway</i>	<i>Road</i>
Kladno	*	*	*	*
Mlada Boleslav	*	*	*	*
Česke Budejovice	44.00	56.28	63.68	72.46
Tabor	43.35	61.48	48.39	75.00
Pisek	38.60	57.89	38.6	62.86
Pilsen	50.91	68.85	64.62	68.85
Ústí n.L.	51.09	64.81	51.09	73.68
Decin	47.06	49.38	47.06	55.17
Teplice	44.91	65.22	44.91	68.18
Most	35.68	59.84	35.68	59.84
Chomutov	34.69	57.43	34.69	65.38
Karlovy Vary	32.07	58.51	32.07	62.86
Cheb	60.89	64.26	70.23	64.26
Liberec	32.72	71.20	32.72	71.20
Hradec Kralove	65.36	72.99	69.93	76.92
Pardubice	107.95	66.43	121.80	67.86
Jihlava	45.27	79.71	46.81	79.71
Brno	76.89	81.33	84.72	81.33
Olomouc	92.89	67.86	103.50	67.86
Prostejov	69.13	73.05	74.91	73.05
Přerov	80.85	69.09	87.69	69.09
Uherske Hradiste	66.67	77.50	70.86	77.50
Zlin	77.95	72.75	83.11	72.75
Vsetin	64.51	64.82	68.62	67.25
Ostrava	82.83	60.44	90.16	64.71
Opava	63.61	58.41	67.93	58.82
Novy Jicin	64.37	68.59	68.05	74.86
Karvina	74.61	59.01	79.83	64.77
Frydek-Mistek	57.40	66.28	65.06	70.75

\* Due to the share of travel time in Prague City on the whole travel time, this indicator is not relevant.

**Table 13: Data on accessibility of Prague from important neighbouring foreign cities**

### Germany

City	Distance (km)		Travel time 2006		Travel time 2013*	
	Rail	Road	Train	Road	Train	Road
Berlin	393	354	4:38	4:00	4:38	3:45
Dresden	188	151	2:13	1:53	2:13	1:40
Nuremberg	355	308	4:54	3:05	4:35	3:05
Munich	440	383	6:00	3:45	5:40	3:45

### Austria

City	Distance (km)		Travel time 2006		Travel time 2013*	
	Rail	Road	Train	Road	Train	Road
Vienna (via Halamky)	410	294	4:02	3:53	4:02	3:35
Linz	294	250	5:30	3:38	4:45	

### Slovakia

City	Distance (km)		Travel time 2006		Travel time 2013*	
	Rail	Road	Train	Road	Train	Road
Bratislava	412	332	4:53	3:50	4:45	3:50
Žilina (via H. Becva)	437	415	5:22	5:05	5:22	5:15

### Poland

City	Distance (km)		Travel time 2006		Travel time 2013*	
	Rail	Road	Train	Road	Train	Road
Warsaw (via Nachod)	774	635	8:28	8:47	8:28	8:30
Wroclaw (via Harrachov)		285	NA	3:55		3:55

\* Data "Travel time 2013" does not include possible reduction of travel time due to infrastructure constructions abroad.

NA – direct railway connection Prague – Wroclaw is not established

## 1.2.4 Safety in Transport

Accidents are a significant negative social factor of transport. They have a negative impact directly on the people involved in them, but also force the entire society to participate in compensating for the damage caused through them. Road accidents have by far the furthest-reaching consequences.

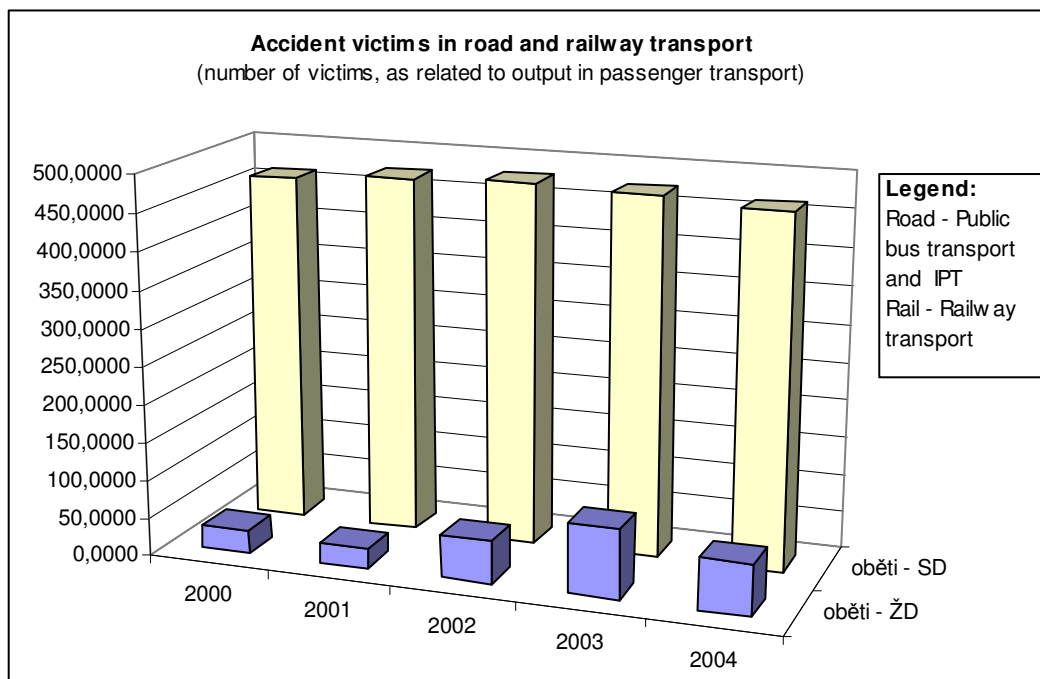
**Table 14: Accident victims in road and railway transport (the number of victims as related to performance in passenger transport – deaths and injuries)**

	2002	2003	2004	2005	2006
<b>RAILWAY</b>					
Number of injured	257	377	213	260	231
Number of fatalities	110	226	232	249	52
Total number of victims (injuries and fatalities)	367	603	445	509	283
Of that, victims in cars on crossings and people run over on tracks (not caused by the railway)	304	515	390	372	202
Transport performance in railway transport [mil. train km]	140	140	146	146	151
Number of victims as related to performance [victims/mil. train km]	2,6	4,3	3,0	3,5	1,9
<b>ROAD</b>					
Number of injured	34 389	35 438	34 254	32 211	28 114
Number of fatalities	1 431	1 447	1 382	1 286	1 063
Total number of victims (injuries and fatalities)	35 820	36 885	35 636	33 497	29 177
Transport performance in road transport [mil. carriage km]	43 193	45 686	47 300	50 262	51 686
Number of victims as related to performance [victims/mil. carriage km]	0,8	0,8	0,8	0,7	0,6

Source: MoT CR

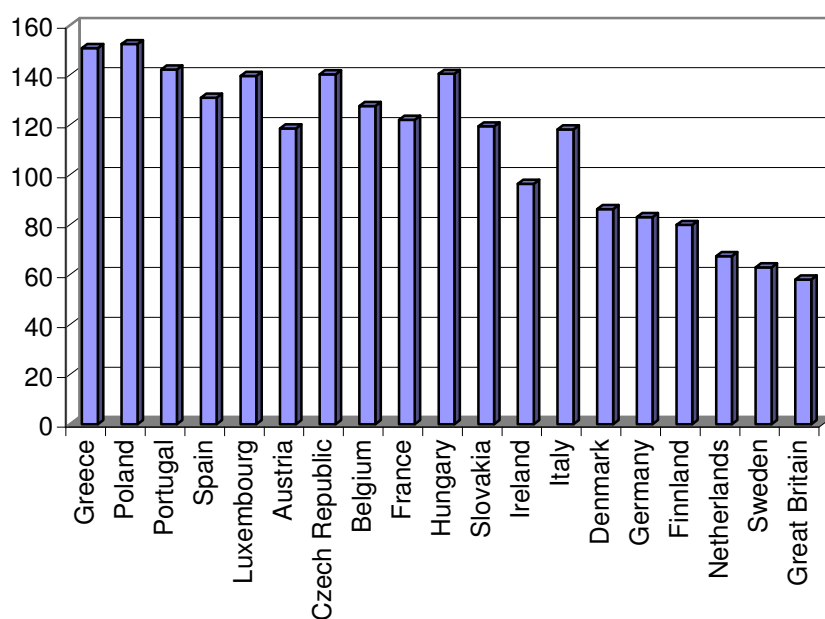
The number of accident victims in road transport in the CR largely exceeds the EU average. Since 2004, the negative trend in the number of car accident fatalities has been reversed, but the absolute number of accidents and the damages continue to grow. In 2004, material damages in road transport reached CZK 9.687 bn, which is more than double of the 1995 figure.

Waterway transport, which is not shown in the table, is the mode with the lowest number of accidents, and the lowest number of injuries and fatalities.



**Comparison of the number of fatalities (within 30 days of the accident) in road traffic accidents in selected countries in 2002**

(Number of fatalities per million inhabitants)





### 1.2.5 Impact of Transport on the Environment and Human Health

Transport is a sector where the goals of sustainable development are not being met. The adverse impact of other sectors on the environment is declining in the CR, whereas in transport, it is growing. The division of transport work is not favourable to the environment. The share of the least environmentally friendly mode, road transport, keeps growing steadily. Road transport has a very negative impact on the quality of the living environment, especially in cities and suburban areas.

Table 16 shows a comparison of the measured per capita energy consumption in road transport in selected countries. Energy consumption is expressed in kg of oil. The value of measured NO<sub>x</sub> emissions in road transport is also shown.

**Table 15: Measured consumption of energy in road transport and NO<sub>x</sub> pollution**

	CR	Belgium	Austria	Germany	France	Hungary	Italy	Poland	Slovakia	EU-25
<b>Kg of oil / capita</b>	517.9	788.9	808.9	640.6	713.7	319.8	666.2	244.7	155.8	625.1
<b>Kg NO<sub>x</sub> / capita</b>	9.1	13.7	16.3	7.2	9.8	10.5	10.8	6.4	3.4	9.8

Source: Eurostat (2003)

**Table 16: Overall list of emissions generated by transport (thou. tonnes)**

	2000	2002	2003	2004	2005	2006
CO <sub>2</sub>	12 252.0	13 707.0	15 687.0	16 700.0	18 191.0	18 650.0
CO	278.4	253.6	255.8	235.6	232.8	213.3
NO <sub>x</sub>	96.8	92.1	96.8	95.5	101.6	96.8
N <sub>2</sub> O	1.4	1.7	2.0	2.3	2.4	2.5
Volatile organic compounds (VOC)	60.0	50.6	51.4	47.8	47.3	43.1
CH <sub>4</sub>	1.8	1.8	1.9	1.8	1.9	1.8
SO <sub>2</sub>	1.7	2.0	2.3	2.6	0.6	0.6
Firm particles	4.0	4.7	5.2	5.6	6.4	6.3
Pb	0.1	0.0	0.0	0.0	0.0	0.0

Source: Centre of Transport Research

**Table 17: Share of the individual modes of transport in carbon dioxide emissions (thou. tonnes)**

	2000	2002	2003	2004	2005	2006
Transport total	12 252	13 707	15 687	16 700	18 191	18 650
Individual passenger transport	7 215	7 927	8 932	9 266	9 791	9 812
Public passenger road transport incl. UMT buses	1 121	1 336	1 545	1 637	1 868	1 996
Freight road transport	2 937	3 484	4 071	4 421	5 132	5 442
Railway transport – motorised lines	326	295	289	285	270	264
Waterway transport	16	12	12	19	15	18
Air transport	637	653	838	1 072	1 115	1 118

Source: Centre of Transport Research

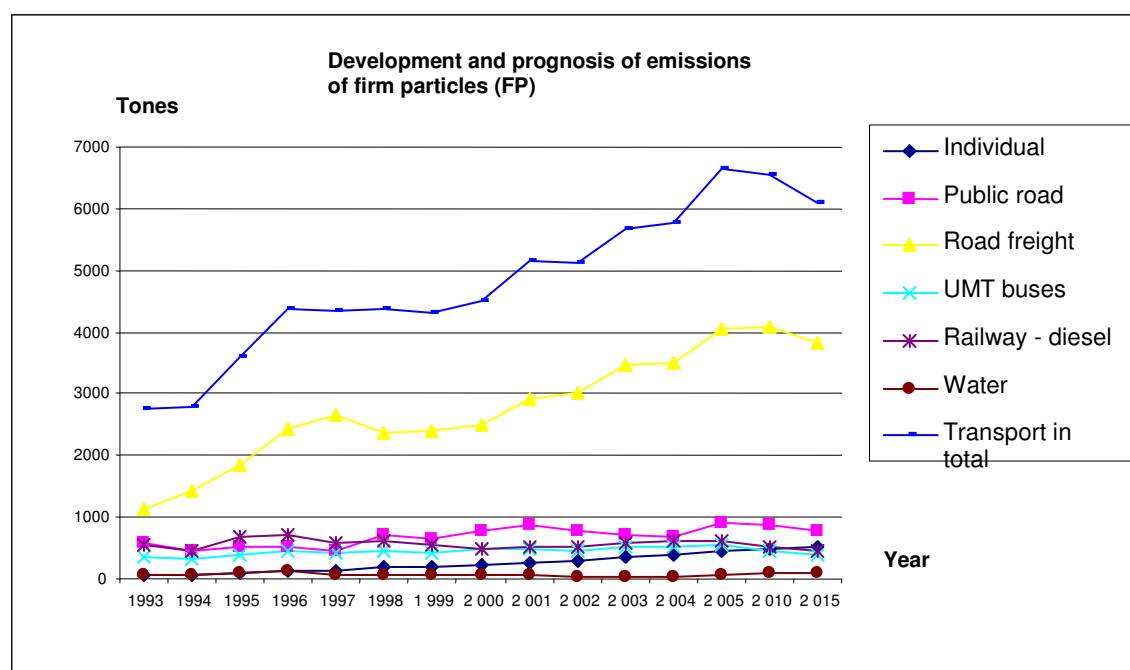
The emissions of greenhouse gases, CO<sub>2</sub>, and especially N<sub>2</sub>O, keep growing, with newer cars showing higher measured figures than older ones. In terms of CO<sub>2</sub>, the increasing trend is

clear, given the consumption of fuel which grows every year, in spite of the fact that new cars are placed on the market with lower fuel consumption. This trend is expected to continue in the future, when vehicles with lower fuel consumption will be represented more in traffic, but their transport performance will grow, which will eliminate the impact of lower consumption. Nitrogen oxide represents a more difficult situation, as individual measurements differ greatly from emission factors published abroad.

The biggest success is seen in the stabilisation and reduction of carbon monoxide (CO) emissions, as well as methane (CH<sub>4</sub>) and non-methane hydrocarbons (NM VOC), as new cars must comply with the increasingly stricter EURO limits (presently EURO IV). NO<sub>x</sub> emissions from individual passenger transport are also dropping, but their production by road freight vehicles is growing. This growth should slow down, or even stop, as new diesel engines are already equipped for NO<sub>x</sub> reduction. The problem lies in the slow renewal of the fleet, especially in road freight transport. The number of old trucks, from Czech automakers, producing high emissions, is hardly decreasing at all.

Emissions coming from transport depending on the quality of fuel (SO<sub>2</sub>, Pb) are now practically negligible, as a result of supplying high-quality lead-free low sulphur fuels.

The biggest problem is represented by the emissions of firm particles (FP), the content of which in the air keeps growing from year to year, and further increase is expected. FP in the air are not only of primary origin, but also secondary (secondary dust). They are dangerous to human health, causing lung diseases, and may even lead to lung cancer.



Source: Centre of Transport Research

The table below shows selected figures from measurements done by the Czech Hydro-Meteorological Institute (hereinafter "CHMI") – preliminary figures.

**Table 18: Total annual sum of selected substances emissions produced by transport, and the operation of other mobile sources, and their share in total emissions**

2004	Firm	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
------	------	-----------------	-----------------	----	-----

	substances									
Amount/share in overall emissions	[t/year]	[%]	[t/year]	[%]	[t/year]	[%]	[t/year]	[%]	[t/year]	[%]
Emissions from mobile sources	27,600	36	6,000	3	175,900	52	299,400	51	66,500	33

Source: ČHMÚ

As the CHMI overview shows (Table 19), transport accounts for a significant share of emission, especially of nitrogen oxides. Air quality in the CR is measured by a dense network of automated monitoring stations (AMS), which monitor the concentration of emissions of limited harmful substances. As for harmful substances, for which air pollution limits are set in order to protect human health, limits were exceeded in 2004 for NO<sub>2</sub> (3 AMS), as well as for FP (17 AMS), benzene (1 AMS), benzo(a)pyrene (9 AMS).

Transport also accounts for a substantial portion (approx. 85 %) of air pollution concentrations of aromatic hydrocarbons – especially benzene.

According to the CHMI data, ground ozone poses another serious problem, and transport emissions contribute significantly to this. Ozone is created with the aid of sunshine in a complicated set of photo-chemical reactions primarily among nitrogen oxides, volatile organic substances, and other components of the atmosphere. A regional comparison shows that the negative impact of transport on the environment is most evident in the City of Prague.

Aside from the emissions of pollutants, transport also has a negative impact on the environment, due to the noise level caused on roads and their surroundings. As a tool for the systematic description of noise levels, noise mapping is used pursuant to the European Parliament and Council Directive No. 2002/49/EC, relating to the assessment and management of environmental noise, which the CR and other European Union Member States will implement in the upcoming years. Noise maps will show the burden on inhabitants (number of persons and houses exposed to noise) around main roads, railway lines, airports, and in agglomerations. In 2007, the completion of the 1<sup>st</sup> stage of work on the maps is required, and, within five years, other noise maps should be produced pursuant to the Directive, and already existing maps will be revised or updated.

A similarly significant problem with a negative impact on the environment is represented by the handling of obsolete vehicles, and other waste generated by transport, and especially road transport. The number of vehicles discarded in the CR is 100,000 – 130,000 every year. The main ecological risks include, aside from the number of car wrecks, primarily the risk of the leakage of car fluids, which in themselves constitute dangerous waste, such as oil, lubricants, frost-free fluids (ethanol, tensides), brake fluid (glycols and organic solvents), coolants (ethyleneglycol), sodium azide (the source of the air-bag generating gas), heavy metals, etc. Aside from car wrecks, various estimates indicate that some 40,000–120,000 tonnes of used (waste) tyres are generated every year in the CR. According to the available data, approximately 1/3 of that volume is collected. End-of-life car batteries also pose a risk. The environmental harmfulness of primary cells and batteries consists in their contents of toxic elements (Hg, Pb, Ni, Cd, etc.). Primary cells and batteries account for 80 to 90 % of Hg in municipal waste. Of the collected end-of-life lead accumulators and batteries, 99.95 % were reused for materials, and 0.05 % removed. All waste must be handled in line with approved waste management plans according to the Act 185/2001 Coll. on waste and on amending several other laws, as amended by subsequent provisions (i.e. the Czech Republic's waste management plan, regional plans and plans of individual generators).

Transport infrastructure construction is accompanied by the landscape fragmentation. The so-called barrier effect hinders wildlife migration or makes it completely impossible, leading to

the loss of their natural habitat. Making passages through existing infrastructure is often very difficult; nevertheless, it should be used in segments with heavily fragmented countryside. New road, motorway, and railway construction and renovation must thoroughly adhere to the SEA and EIA processes.

Indirect impact of transport on the environment consists in the extraction of building materials, especially rocks and gravel sand, which may have serious impact on the character of landscape. Given the development in the volume of the extraction of the primary materials used in transport civil engineering, approximately the same volume of extraction as in the past may be expected.

### **1.3 Reflection of the EU Funds Support to Date for Transport Infrastructure and Transport of Supra-regional Importance**

Contributions of the EU funds for the Czech Republic's transport sector were provided both prior to the country's EU accession on 1 May 2004, and, for the most part, during the shortened programming period of 2004 to 2006. The primary portion of support in the pre-accession era was provided through the ISPA instrument (established in 1999), and partially also through the PHARE programme (national, cross-border, and multi-country). With the country's accession to the EU, the possibility of drawing funds from the Cohesion Fund and the European Regional Development Fund arose (for the transport sector primarily under OP Infrastructure and under the Joint Regional Operational Programme and the INTERREG initiative).

Given the short time-period for project implementation (the CR acceded to the EU in the middle of the 2000 – 2006 programming period, and only used the shortened period of 2004 – 2006 for drawing EU funds), their impact cannot be fully assessed as at the date of OP Transport elaboration. Below are listed the expected results and impact of projects implemented in 2004 – 2006.

#### **ISPA / Cohesion Fund Projects**

Since the country's EU accession, projects approved for support from the ISPA pre-accession instrument have been administered in line with the Cohesion Fund rules. Nine investment projects were implemented under ISPA (of that 3 had been completed as at the date of OP Transport creation in 2006) and 2 technical assistance projects; under the Cohesion Fund, 5 investment projects were approved for co-financing in the 2004 – 2006 period.

**Table 19: Allocations from the ISPA/CF for the Czech Republic**

<i>Approved allocations</i>	<i>in EUR</i>	<i>in CZK*</i>
<b>ISPA</b>	255,724,538	7,807,358,640
<b>CF</b>	358,977,661	10,769,329,830
<b>Approved allocation in total</b>	<b>614,702,199</b>	<b>18,441,065,970</b>
<i>CF allocations not yet approved</i>	0	0
<i>Allocations in total</i>	614,702,199	18,441,065,970

\*Exchange rate: 30 CZK/EUR

On 27 December 2005, the European Commission approved in its Decision No. 2005/CZ/16/C/PT/001 the railway project "Optimisation of the Pilsen – Stribro Line", with the CF contribution of EUR 79,426,631, thus using the remaining allocation for the 2004–2006 budgetary period, including the savings from other ISPA/CF railway projects.

Given the savings of certain road projects, an extension of the present Commission Decision is expected, concerning the D1 project of Kromeriz East–West, by adding the adjacent sections of the D1 Motorway.

**Table 20: List of projects co-financed from the ISPA/CF (as at December 31, 2006)**

ISPA Projects		Maximum eligible costs (EUR)	Maximum ISPA/CF grant (EUR)	ISPA/CF share in eligible costs
Location	Type			
Ústí n. Orlicí – Česká Třebová	Railway upgrading	25 740 144	12 870 072	50%
Záboří n. Labem – Přelouč	Railway upgrading	55 633 356	27 816 678	50%
Frýdek Místek – Dobrá	Upgrading of road R-48	33 986 128	20 391 677	60%
Bělořín ring road	Upgrading of road R-48	28 528 535	17 117 121	60%
Dobrá – Tošanovice	Upgrading of road R-48	32 996 127	19 797 676	60%
Zábřeh na Moravě - Krasíkov	Railway upgrading	121 299 690	72 779 814	60%
Renovation of railway lines and roads damaged by the 2002 flood	Repair of railway line and roads	17 647 059	15 000 000	85%
D-8 Motorway – Segment 807 Trnava – border	Motorway construction	123 553 000	61 776 500	50%
ETCS/ERTMS – Pilot project Poříčany - Kolín	Introduction of an interoperability system	9 800 000	7 350 000	75%
Technical assistance in project preparation	Technical assistance	833 333	625 000	75%
MT technical assistance in project management and ISPA implementation	Technical assistance	200 000	200 000	100%
ISPA in total		450 217 372	255 724 538	

Cohesion Fund Projects		Maximum eligible costs	Maximum ISPA/CF grant	ISPA/CF share in eligible costs
Location	Type			
Červenka – Zábřeh na Moravě	Railway upgrading	133 531 000	100 148 250	75%
D-1 Motorway, Kroměříž East - West segment	Motorway construction	51 457 000	39 107 320	76%
Prague ring-road R1, segment Lahovice- Slivenec	High-speed road construction	344 111 000	103 233 300	30%
R-48 Tošanovice-Žukov	Upgrading of road R-49	61 770 267	37 062 160	60%
Plzeň - Stříbro	Railway upgrading	130 207 592	79 426 631	61%
Cohesion Fund in total		721 076 858	358 977 661	

ISPA + CF in total	1 171 294 231	614 702 199
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### **ERDF Support – OP Infrastructure 2004 – 2006**

The global objective of the Operational Programme Infrastructure was the protection and improvement of the environment, and the development and improvement of transport infrastructure, while respecting the principles of sustainable development, with an emphasis on meeting the EU standards.

OP Infrastructure was implemented in 2004 – 2006 (2008). Given the specific objectives of OP Infrastructure, four Priorities were initially identified. For the transport sector, Priorities 1, 2 and 4 were relevant, focusing primarily on the upgrading and development of transport infrastructure of nation-wide importance (Priority 1), and on mitigating the negative impact of transport on the environment (Priority 2) and on technical assistance related to management of operational programme (Priority 4). Financial allocations from the EU Structural Funds (i.e. from the ERDF) for the entire programming period, for the two above-mentioned material priorities focusing on the transport sector amounted to EUR 98.9 mil; this was CZK 3.142 bn at the time of the approval of OP Infrastructure. The MoT, as the Intermediate Body for OP Infrastructure, responsible for implementing projects under Priority axes 1 and 2, expects that this allocation will be divided among the final beneficiaries in CZK in full, under Priority axes 1 and 2.

The activity of beneficiaries under all measures of Priority axis 1 is documented by the fact that in terms of the upgrading and development of railway, road, air, and water transport, the absorption capacity exceeds the financial allocation obtained. This fact will ensure that the allocation will be drawn down in full without problems. This also supports the argument for increasing the funds available under the Operational Programme Transport for 2007–2013, without the risk of not being completely drawn; on the contrary, an increase is absolutely necessary and justified, given the overall absorption capacity and investment needs in areas stressed on the CSG level, and with respect to transport policy.

The allocation of ERDF funds for 2004 – 2006 was divided among various investment priorities and, in total, 36 priorities were supported. Progress with the implementation of those projects results in meeting the specific objectives of OP Infrastructure and the Czech Republic's transport infrastructure grows closer to the desired "European" level.

### ***Conclusions of the reflection***

Aside from the positive impact of the implementation of OP Infrastructure and the Cohesion Fund support on transport infrastructure and the environment, it is also important that the CR, over a relatively short period of time, has managed to cope with the administrative difficulties of obtaining financial subsidies from the EU funds. Increasing the professional competencies of the employees involved in the practical implementation of OP Infrastructure and Cohesion Fund projects will help ensuring that the Operational Programme Transport is set up and implemented without problems. The know-how gained in the area will help the CR converge to the level of the developed EU countries faster, and with fewer problems.

Knowledge gained during the previous programming period 2004 – 2006 was also used in drafting OP Transport, e.g. the conclusions of the project "Evaluation of the Mid-term Progress of the Implementation of OP Infrastructure". That project makes recommendations for the next programming period, emphasising, for example, the following changes:

- Support for railway infrastructure needs to be drawn mainly from the Cohesion Fund.
- Local programmes should be transferred to the regions, to the maximum extent.
- The issue of airports should be transferred to the regions, and addressed through regional programmes.
- Support for research should be transferred to other relevant programmes (Measure 2.4 of the Operational Programme Infrastructure).

- Focus more on reducing the negative impact of transport on the environment; support shifting transport to the railway and to water; support combined and multimodal freight transport; but also improve the conditions for national co-financing through the Ministry of Transport, i.e. create a simpler route to these funds. It is also recommended to reduce the administrative burdens of beneficiaries.

## 1.4 SWOT Analysis

This chapter presents a summary evaluation of the strengths and weaknesses, opportunities and threats, for the balanced and harmonious development of the transport sector in those areas which are the subject of the EU support. The evaluation is presented in table form, divided according to mode. The SWOT analysis serves as the basis for formulating the objectives of OP Transport.

**Table 21: SWOT Analysis in the Transport Sector**

Strengths		Weaknesses	
Factor	Rank	Factor	Rank
<b>Railway Transport</b>			
Environmental impact of railway transport	1.	Not constructed railway corridors that are part of the TEN-T network (TRC III and IV)	1.
Low accident rate in railway transport	2.	Not upgraded railway junctions, and certain sections of the TRC I and II	2.
Increasing demand for mass public transport, especially in suburban areas	3.	Connection of all regions into a quality railway network, and completion of all important intra-regional links, at a quality competitive with road infrastructure	3.
Performance of long-distance CT increasing on a sustained long-term basis	4.	Long-term failure to address the technical condition of other TEN-T network lines	4.
Transport streams leading into city centres without great territorial demands	5.	Poor technical conditions and insufficient parameters of the nation-wide network, and regional lines important for backbone transport, including the outdated placement of some railway stations and stops, not corresponding to developmental changes, including accessibility for persons with reduced mobility or orientation	5.
Economic efficiency of the carriage of mass substrates, or strong passenger transport streams, in commuter transport	6.	Technical condition and equipment with safety equipment	6.
		Low share of electrified lines	7.
		Unfinished projects that are to enable the reaching of UIC-GC parameters on the 1 <sup>st</sup> TRC and parallel freight line, with a negative impact on CT	8.
		Insufficient integration of rail transport into logistical processes (providing for door-to-door transport, shipment consolidation and deconsolidation), insufficient equipping of railway infrastructure with modern logistical centres, and the resulting low speed of transport	9.

		Environmental impact – slow removal of old burdens	10.
		Old fleet for regional passenger transport	11.
<b>Strengths</b>		<b>Weaknesses</b>	
<b>Factor</b>	<b>Rank</b>	<b>Factor</b>	<b>Rank</b>
<b>Road Transport</b>			
Flexibility and effectiveness of road transport with the necessary high speed and precision in the supply of goods	1.	Incomplete network of motorways and expressways; insufficient connection of all regions to the M + E network	1.
High road network density as a whole, with a sufficient share of Class I roads ensuring service to the regions	2.	Technical condition of structures in the network of motorways, expressways, and other Class I roads	2.
High quality of newly built and renovated segments of motorways, expressways, and other Class I roads	3.	Missing ring roads, and unresolved thoroughfares through towns and villages on a substantial portion of Class I roads	3.
		Negative impact of the traffic on the existing Class I roads in border regions, on the environment, health, and safety	4.
		Impact of the traffic on the existing infrastructure, on the environment (old burdens)	5.
		Demand for public transport in large cities exceeding supply, due to insufficient urban mass transport infrastructure	6.
		Insufficient capacity of Class I roads and lower-class roads in suburban areas, especially around the City of Prague, for the increasing traffic from the peripheries to the centre, leading to the need to expand the extent of backbone underground transport	7.
		Carriers in road transport are still not bearing a sufficient portion of the costs of road construction and maintenance	8.
<b>Inland Waterway Transport</b>			
Lowest environmental impact of traffic	1.	Insufficient headway on certain waterways important for transport	1.
Available capacity on the canal-based section of the Elbe-Vltava waterway	2.	Insufficient integration of water transport into logistical processes (ensuring door-to-door transport, shipment consolidation and deconsolidation)	2.
Lowest accident rate, low carriage costs, and lowest congestion rate in water transport	3.	Insufficient navigation infrastructure on the regulated section of the Elbe waterway, and the resulting unreliability of the waterway	3.
		Insufficient vessel capacity and technical condition	4.
<b>Opportunities</b>		<b>Threats</b>	
<b>Factor</b>	<b>Rank</b>	<b>Factor</b>	<b>Rank</b>
<b>Railway Transport</b>			
State demand for fast inter-regional transport with an integrated schedule	1.	Dropping competitiveness of railway transport, due to the improving parameters of the road network	1.
Growing demand for regular interval regional transport as a backbone system of integrated public passenger transport	2.	Interference between long-distance and commuter passenger transport and long-distance freight transport, on the most	2.



in the regions		heavily used lines of the network	
Greater use of public passenger transport, if the offering and quality of the system increase	3.	Dropping share of freight railway transport	3.
Making use of the advantages of light railway and combined tramway-railway systems	4.	Slow progress of introduction of measures in the interoperability sphere	4.
Creating conditions in the City of Prague for developing mass transport and shifting passenger transport from IPT to an extended underground	5.	Safety on railway crossings	5.
Stabilisation of the share of railway transport in freight transport	6.	Absence of political consensus about the internalisation of the externalities of road transport	6.
Enhancing the importance of combined transport, especially as tied to the development of logistics	7.		
Increasing transport distances in logistic chains, including to overseas destinations	8.		
<b>Road Transport</b>			
Introduction of telematics application for intensifying road capacity	1.	Increased number of sections suffering from regular congestion, especially in the City of Prague	1.
Introduction of telematics applications to ensure greater road transport safety	2.	Low safety	2.
Introduction of telematics applications to ensure lower air pollution from road transport	3.	Impact of road transport on the environment and health (including the global impact)	3
Reducing time loss, in cases where development of telematics cannot be used, by building high-capacity motorways and expressways on the routes with high transport demand	4.		.
Reduction of the negative of impact of transport, by building motorways, expressways, and ring roads around towns and cities	5.		
Increasing the capacity of municipal transport networks, by removing problematic points and remedying the low intersections capacity	6.		
<b>Inland Waterway Transport</b>			
Enhancing the importance of combined transport, especially in connection to the development of logistics	1.	Fleet capacity going abroad, due to the unreliability of the waterway	1.
Increased transport volume, if better reliability of waterways is achieved	2.	Environmental impact of the measures to ensure greater reliability for navigation on the natural segments of water courses	2.
		Continuing marginalisation of the importance of water transport on the transport market	3.
<b>Transport in General</b>			

Creating conditions for private investment into public infrastructure by way of PPPs			
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## 2 DESCRIPTION OF THE SELECTED STRATEGY

### 2.1 *Summary of the Results of Analysis of Background Documents and SWOT Analysis, with Respect to the Strategy of OP Transport*

The results of the background documents analysis and of the SWOT analysis in OP Transport serve as the foundation for formulating the objectives and strategies of the programme document. Problem definitions are based on the principles and priorities set for 2007–2013 by the EU, in the form of the CSG, and in the CR in the form of the NSRF. According to the CSG for 2007–2013, for the “Convergence” Objective, the support strategy for the growth potential must be focused on increasing long-term competitiveness, job creation, and sustainable development. It is therefore necessary to create and expand the basic infrastructure, which includes transport infrastructure, and to ensure access to it. The global strategy is defined both in the foundational EU documents and Czech documents. The foundational document for this area is the NSRF.

#### 2.1.1 Implications of the Analysis of EU Documents for Determining the Strategy of OP Transport

It is evident from the EU documents, especially from the **Lisbon Strategy and the CSG**, that the cohesion policy in the EU is aided by the development of co-operation and complementarity with other Community policies; in the sphere of transport, these are the trans-European network projects, which are supported, for example, from the Cohesion Fund.

To ensure growth and employment, quality transport infrastructure is required, in addition to other types of infrastructure. Effective, flexible, and safe transport infrastructure is a necessary prerequisite of economic development, as it increases productivity and thereby the development prospects of the regions concerned, by making the movement of people and goods easier. Transport networks enhance business opportunities and increase effectiveness.

In determining the strategy of OP Transport, the general principles forming the basis for the resolution of transport problems in the CR in 2007 – 2013 were of importance:

- Priority to be given to 30 projects of European interest (pursuant to the European Parliament and Council Decision No. 884/2004/EC, of which 3 projects concern the territory of the CR);
- Implementing the connection of segments linking to the main networks;
- Creating an accessible railway network throughout the EU, including the introduction of interoperability, and the introduction of the ERTMS, not only to the transport infrastructure, but also to trains;
- Environmental support for transport networks (building outer ring roads, increasing intersection safety, measures to ensure access for handicapped persons, etc.);
- Improving the connection of inland areas to the trans-European network (TEN-T);
- Support for measures to ensure safety in road transport.

### **2.1.2 Implications of the Analysis of the CR Documents in Determining the Strategy of OP Transport**

In the CR, cohesion policy principles are contained in the NSRF.

The **Czech Transport Policy** is also in line with the proposed strategy of those documents proposing further development of transport in such a way as to ensure transport quality while respecting the principles of sustainable development.

The Czech TP priorities will be achieved by implementing specific objectives through individual measures.

#### **Selected specific objectives of the TP CR directly related to issues addressed by OP Transport:**

- Managing the increased demand for transport and the impact of globalisation in transport (PLC concept, greater use of railway and inland water transport, establishment of telematics systems);
- Harmonisation of transport market conditions and user fees (removing the ecological burdens posed by the existing infrastructure, and minimisation of the negative impact of transport on the environment and public health);
- Improved transport work in passenger and freight transport (rail-based transport should form the backbone of the network, establishment of telematics systems in passenger and freight transport, and support for combined and multimodal transport);
- Construction and modernisation of transport infrastructure (gradual construction and upgrading of the TEN-T network, and development of other connecting transport networks);
- Obtaining financing for transport infrastructure (use of all available sources, including the EU funds and private resources, through PPPs);
- Road transport safety (alteration of localities with frequent accidents, building ring roads around towns and cities, alteration of intersections with high accident rates, removing level railway crossings, and alteration of infrastructure for the purposes of monitoring traffic safety and flow);
- Railway transport safety (introducing modern safety equipment systems);
- Support for transport development (development of ITS, introduction of new concepts with possible co-ordination by the State, and recommendations for transport strategy drafting).

The key part of the selected strategy is represented by the global objective adopted in the **NSRF**, the content of which is the creation of the conditions for sustainable economic growth and employment, by enhancing competitiveness, according to the different needs and conditions in various CR regions.

*The global objective is to transform CR's socio-economic environment in compliance with the principles of sustainable development, so as to make the CR an attractive location for investment as well as for the work and life of its citizens. By means of incessant strengthening of the country's competitiveness, a sustainable development will continue with the aim to reach the economic level of the EU 25. The CR will strive to boost employment and to pursue a balanced and harmonized regional development, which will result in enhancing the quality of life of the country's population.*

The competitiveness of the country, and its ability to achieve sustainable growth, is a result of a combination of internal and external factors, i.e. of the ability to eliminate internal barriers and weak points, and to make effective use of the opportunities resulting out of the country's integration into the EU and the global economy.

Factors of the Czech Republic's competitiveness:

a) Competitive economy:

- Open entrepreneurial environment (system);
- Modern structure of the economy (progressive industries, sophisticated services, application innovation centres);
- Modern system of research, development, and innovation, the results of which are used in the business sphere (technological centres, centres of excellence);
- Use of progressive technologies and modern forms of management (productivity growth).

The above-mentioned factors will result in an increase of labour productivity and other production factors, in strengthening production with higher added value, in increased competitiveness of companies on foreign markets, and in a transition to a knowledge economy (change from the existing "low road" strategy to the "high road" one).

b) Open and flexible society:

- Inclusive and flexible labour market with a qualified and flexible labour force, which is capable of profiting from opportunities generated on the global and European levels;
- A society flexibly and continuously increasing its educational potential (life-long learning) and assumes the nature of a knowledge economy adapted to the requirements of a modern economy;
- Society trying to prevent its internal problems, being able to address them actively (labour force mobility, migration, ageing) and guaranteeing equal opportunities for men and women and for groups in danger of social exclusion;
- Effective system of public administration.

c) Attractive environment:

- Protection and improvement of the environment, care and use of the landscape potential, risk prevention;
- Development of environmental infrastructure;
- Territorial accessibility and the existence of transport and communication connections and links.

d) Balanced territorial development of the CR and its regions:

- Harmonious development of the country and reduction of existing disparities (addressing structural problems);
- Stimulating the development potential of the regions;
- Enhancing the role of cities as centres of regional growth and development;
- Resolution of internal urban problems (revitalisation of urban areas – blocks of prefab concrete flats, brownfields, etc.),

- Sustainable development of rural areas (support for new business activities).

Given the significant territorial variability, it is necessary to take local conditions (natural, economic, social, and cultural) into account when making interventions and to focus the strategy on a systematic development of the local potential.

The above-mentioned factors, which are prerequisite for the competitiveness of the country, constitute the strategic objectives of the **NSRF** for 2007 – 2013.

The strategic objectives, as stated above, are “Competitive Czech Economy”, “Open, Flexible and Cohesive Society”, “Attractive Environment”, and “Balanced Development of Territory”. For the transport sector, the following specific strategic objective is specified: ensuring an attractive (high-quality physical) environment, as a high-quality environment and accessibility of a territory by transport and communications networks are the basic prerequisites for the development of economic and social activities. The strategic objective of the NSRF will be achieved through priorities, which constitute the basis for the determination of OP Transport priority axes: “Enhancing the Competitiveness of the Czech Economy”, “Development of Modern and Competitive Society”, “The Environment and Accessibility”, and “Balanced and Harmonious Development of the Territory of the Czech Republic”.

The strategic objective “Attractive Environment” in the transport sector will be achieved through the priority **Improving Accessibility by Transport**. This priority will be implemented through OP Transport, more specifically by continuing in the construction and modernisation of the TEN-T transport networks, transport networks connecting to them (especially those of nation-wide importance, and of regional importance in railway transport), that is generally speaking, the networks owned by the State. Emphasis will be put on interventions contributing to the above-mentioned strategic objectives having an impact on the increase of the country’s competitiveness. The transport infrastructure of ecological urban rail transport will be also supported. Issues related transport networks owned by the regions will be addressed under ROPs; and certain partial, specific problems related to transport will be addressed by the MIT (e.g., the connection of industrial zones), thus ensuring that no overlaps among Operational Programmes occur.

OP Transport will positively contribute to other strategic objectives of the NSRF (see the table at the end of the ‘Strategy’ section).

The strategy selected for OP Transport is in line with the **Lisbon Programme** 2005 – 2008, which is reflected in the Czech National Reform Programme, drafted in line with the Sustainable Development Strategy and Economic Growth Strategy. OP Transport contains the principles and conditions for the development of Czech transport corresponding to the NSRF.

### 2.1.3 Implications of the SWOT Analysis in Determining the Strategy of OP Transport

The results of the situational analysis of the transport sector were summarised in the SWOT analysis, which identified the significant strengths, weaknesses, opportunities, and threats for each mode of transport.

The following criteria were evaluated to identify the various aspects of the SWOT analysis:

- Allocation of transport infrastructure inside the country and in relation to other EU countries; its equipment and overall condition;
- Relationship of the given mode of transport to the environment;
- Technical condition of transport infrastructure;
- Safety;
- Ability to live up to its position in providing freight transport and mass passenger transport, and to ensure conditions for becoming competitive with IPT.

The strengths of **railway transport**, as compared to road transport, are, among other: its less negative environmental impact provided that sufficiently strong transport streams are ensured; a relatively low accident rate per carriage performance; positive development in public passenger transport; its use in integrated transport systems. There is an evident and demonstrable interest in railway transport by the Regional Authorities and the State, especially in suburban areas; a continued increase of the performance of road – railway CT is seen, especially on long-haul routes, although it constitutes a small percentage of the overall transport volume. A significant benefit of railway transport lies in the fact that it requires a rather small territory in order to be able to bring large volumes of transport into urban centres.

The weaknesses include incomplete sections on the TEN-T networks, including priority sections defined in the European Parliament and Council EC Decision No. 884/2004, i.e. not yet upgraded sections of transit railway corridors (especially the TRC III and IV); certain non-renovated railway junctions, and certain sections of the TRC I and II; insufficient connection of all regions to quality key railway infrastructure, including the completion of all important interregional links; poor technical condition of both TEN-T network lines and other national and regional lines, especially in terms of safety equipment on national and regional lines important for backbone passenger transport; low share of double-track and electrified lines; inadequate infrastructure for certain modes of CT (inadequate parameters); and insufficient integration of freight railway transport into modern logistical processes. On certain existing lines, noise barriers are missing and there are no facilities allowing access to persons with impaired mobility and orientation.

The formulation OP Transport strategy is drafted in order to provide support to the strengths of railway transport and to their use in the further development of the country, as well as to reduce the impact of the weaknesses of railway transport.

The strengths of **road transport** include the high road network density, ensuring service to all regions (one of the densest in Europe), and its flexibility.

On the other hand, the TEN-T network is incomplete, i.e. sections of motorways and expressways are missing, and not all regions are connected to a quality key road network. The inadequate technical condition of structures on sections of motorway, expressways, and other Class I roads is a problem; ring roads around towns and cities on Class I roads are missing, which has a negative impact on the environment and public health, and in certain cases, leads to a higher accident rate; safety measures are required to make certain intersections safer; and insufficient road capacity causes congestions and other collapses in densely populated areas. Significant traffic problems exist on certain segments of two-lane Class I roads (rugged terrain) and the overburdening of suburban segments, due to insufficient road capacity. Noise barriers are missing on certain existing roads. There are inadequate connections to the motorway networks of neighbouring countries, which results in a negative impact on the environment along insufficient-capacity roads leading to border crossings. Inadequate

connections also cause congestions and the slowing down of passenger transport by slower freight transport.

The above-mentioned strengths and weaknesses of road transport represent another basis reflected in the contents of OP Transport.

The strengths of **inland water transport** include its specific quality, i.e. lower environmental impact of water transport on the environment compared to other modes of transport, but potential impact on nature protected areas and water quality.

On the other hand, weaknesses include the poor parameters of the waterway, especially unreliability of the regulated stretch of the Elbe waterway, and also, for example, the inadequate headway of the Elbe waterway up to Pardubice, and the absence of facilities to be used in logistical processes, and the ecological impact of the construction and increasing of the waterways parameters.

These factors also constitute an important basis for the strategy of OP Transport.

Important factors among **opportunities** within development and improvement of transport accessibility of a territory are: utilization of the opportunity to continuously support the more ecological railway transport, as the State is interested in retaining, or even increasing, the frequency and quality of connection among regions, and regional authorities are also interested in supporting railway transport of regional importance. Benefits may be derived from using the advantages of light railways, or the combination tram-train in areas where this is possible. Another opportunity is to support environmentally friendly rail transport in mass transportation, especially in the City of Prague, where the underground system must be expanded in order to cope with the large volume of passenger transport. Support for track vehicles renewal in other suburban and urban transport will be included in priority axes of the Regional Operational Programmes.

In terms of freight transport, the sharp decrease of railway transport has been stopped, and the shift of transport from road to railway has been stabilised. In some types of transport, the impact of the specific qualities of railway transport is evident, especially in the carriage of mass substances, i.e. in heavily-used transport streams, where it is irreplaceable. An opportunity can be seen in making use of the importance of logistical processes in multimodal freight transport, this being related to building of PLCs from public sources.

The above mentioned shows that it is necessary to support railway transport, in spite of the threats, i.e. an effort to stop the decline in the competitiveness of railway transport vis-à-vis road transport, which is more flexible; creation of conditions for remedying problems which may arise on the infrastructure shared by passenger and freight transport. That is why interoperability must be quickly supported ensuring the increased competitiveness of railway transport against road transport, especially in cross-border transport; in railway transport, efforts must continue to secure level crossings, as these are the points of accidents and fatalities.

The **opportunity** to be utilised in road transport is the introduction of intelligent transport systems (ITS), especially for the intensification of road capacity and for ensuring safety.

In terms of **threats**, we must cope with congestions and collapses in places with heavy traffic, especially in the City of Prague and adjacent roads; with low levels of safety, caused to a large extent by the behaviour of drivers, but also by the condition of the infrastructure; and with the negative environmental impact of road transport.



In inland water transport, the opportunity lies in supporting the development of logistics, using public resources, with the **threats** being in the unreliability of achieving the navigation parameters on the regulated stretch of the Elbe waterway.

Based on the selection of the above-mentioned positive and negative phenomena, and specific qualities of each mode of transport, and after having reflected the results of other documents, a strategy was established in order to address the problems, and development opportunities and problems were thus also identified.

## 2.2 OP Transport Strategy

### 2.2.1 Vision for the Transport Sector in the Czech Republic

In line with the Government Resolution No. 882 of 13 July 2005 concerning the Transport Policy of the Czech Republic for the period 2005-2013, the Transport Policy is being analysed currently, in the period of the final drafting of the OP Transport, after the first two years of its validity, and will be subsequently updated with the deadline before the end of 2007. This is due to the fact that the TP is conceived as a living policy document that will be updated in this way every two years. The updating will also contain elements defined by the analysis of the EU White Paper: European Transport Policy for 2010: Time to Decide in 2010.

The strategic documents will, by July 2008 be supplemented by the development of sector strategies outlining the specific measures that concur to the achievement of the main policy goals as well as their respective implementation plans. Once these sector strategies are complete the Czech authorities will provide a mapping of the appropriateness of the set of projects planned within the different Priority Axes of this OP set against the identified strategic goals for the specific transport sectors. If necessary, the OP will be upgraded in order to reflect potential changes required in the list of projects, indicators or underlying rationale.

Conceptual and strategic documents prepared under the aegis of the Ministry of Transport which shall be completed by July 2008 will address the following key aspects:

- **Competitive position:** evaluation of the competitive position of the sector within the transportation market in the CR and of its expected trends, established on the basis of a representative market segmentation<sup>2</sup> and on the benchmark of services with competing transport modes;
- **Core business:** establishment of a set of core services for the distinct market segments (including both transportation and value-added services) together with their associated performance requirements (in terms of quality, reliability, responsiveness, price, customer relationship environment) that could ensure a long-term sustainable economic development for the sector and should constitute the focus for its development in the medium-to long-term;
- **Gap-Analysis:** performance of a gap analysis establishing the additional requirements and facilities that are deemed necessary for a successful implementation of the defined core services. This should address not only the needs regarding additional

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<sup>2</sup> e.g. long-distance passenger transport, regional transport, commuter transport, bulk freight, inter-modal, logistics for rail transport.

infrastructure facilities but also potential re-engineering of current commercial/operational processes, the introduction of new business/service concepts or innovative technologies that are judged essential to attain the earmarked core service goals;

- **Implementation and investment plan:** definition of an outline implementation strategy that maximises the benefits to the end-user community, minimises risks and optimises the utilisation of investment resources.

The development of these "sectoral strategic documents" will involve the setting up of a Joint Steering Committee and working group involving representatives from the relevant Czech authorities, transport stakeholders and the Commission services (notably DGREGIO and DGTREN) in order to steer their elaboration.

The vision for transport in the CR, based on the mentioned TP, presumes equipping the territory with a transport infrastructure which will, to the maximum degree possible, meet increasing requirements on mobility of persons and goods in the CR and the EU with regard to well-balanced connection of all regions and sustainable development, and which will secure and create conditions for the competitiveness of the country on the one hand and will provide for the EU needs for transit transport via the Czech territory necessary for the EU development on the other hand. This is to be accomplished within the limits given by the funds to be expended on necessary investments into transport networks.

With sustained support for the development of transport networks, not only will the quality of the environment, in which Czech citizens live, improve, but at the same time favourable conditions will be created for placement of national and foreign investments and for support of tourism. Simultaneously, social costs resulting from congestions, accidents and other negative influences of transport on the environment will be reduced.

Efforts expended on the rapid construction and upgrading of transport networks will gradually lead to the completion of a quality connection of the country to EU and other European networks by building and upgrading of the TEN-T networks. Similar processes will be used on regional roads and connections, in order to achieve the standard of the most developed EU countries.

A significant attribute will be the fact that a portion of traffic will be accomplished using modern and environmentally friendlier modes of transport.

The vision for transport also foresees fulfilling of obligations into which the CR entered through its membership in the EU and accession to other international agreements defining primarily the extent and quality of concerned infrastructure in its final state. In the field of railway infrastructure, the AGC and AGTC agreements are concerned, in the field of road infrastructure there is the AGR agreement, and in inland waterway transport there is the AGN agreement. The Accession Treaty to the EU also defines transport infrastructure of special interest, i.e. TEN-T networks on the Czech territory, important for the transit transport via the territory of the Czech Republic as an interior EU country.

The importance of this fact will increase with the enlargement of the Schengen space. Transport must not become the weak element of the economic development and cooperation of EU countries as well as cooperation with third countries.

Increased transport accessibility, notably in terms of travel time, increased transport quality (e.g. infrastructure development, responsiveness to customer expectations, increased safety, capacity improvements and optimum usage of all transport networks), all taking account of enhanced land-use planning, will be achieved through the implementation of proposed measures while respecting national and Community legislation.

### **2.2.1.1 Approach to Fulfilling Objectives of the Transport Policy of the CR for the period 2005 – 2013 through OP Transport**

When conceiving priority axes of OP Transport, the TP CR was considered as one of the fundamental documents. Priority axes of OP Transport and consequent intervention areas must contribute to fulfilment of the TP CR objectives, especially through measures which have form of direct support for investment projects. Alongside legislative and regulatory measures, the investment measures form the basis for achieving objectives in all specific priorities of the TP CR.

**TP CR priority – “Achieving suitable distribution of transport work among various modes of transport by ensuring equal conditions on the transport market”**

Objectives included in this priority will be achieved through OP Transport, namely by interventions included in several priority axes. This priority includes measures concerning all modes of transport. In the field of passenger transport, it concerns mainly the support for public mass transport, which cannot operate without suitable infrastructure. The main focus is on support of rail transport which concerns the railway networks on Priority axes 1 and 3 (Railway modernisation in and outside of the TEN-T network; within priority axis 3 in the field of passenger transport, importance will be given to improving accessibility by fast and regular suburban rail transport, including the interconnection of rail with other forms of urban mass transport to facilitate seamless door-to-door journeys. Particular emphasis will be allocated to the interconnection of rail and tram networks (tram-train) in those urban agglomeration with suitable condition for the introduction of this system and to further develop the Prague metro network (dealt with in Priority 5).

Freight transport also represents serious problem, which is being solved mainly in Priority axis 6 through interventions focused on increasing multimodality of freight transport. This means in the first place creating suitable conditions for a trouble-free transfer of shipments among various means of transport so that their advantages can be used to the maximum extent. In the CR, this primarily means combination of railway transport, which should be used for the bulk of long-distance transports between trans-shipment hubs and road transport, which should ideally focus on serving demand within the catchment territory of trans-shipment hubs. Henceforth, the focus of Priority axis 6 within the multimodal transport intervention area will be mainly the support to constructing the infrastructure for combined transport, notably container trans-shipment stations and their connection to the railway network, the support to the creation of public logistic centres and the promotion of the construction and revitalisation of railway industrial tracks making the railway infrastructure more accessible to customers. This will include, in addition, all the ancillary facilities (e.g. operational and information management systems) that are deemed necessary to implement innovative logistics and operational concepts for the running of such facilities. The objective is to move a part of the goods transported by roads to the railway by supporting container transport units and making the railway infrastructure accessible to users. Investments into

inland waterway transport are also part of the TP CR objectives fulfilment and they should support its inclusion into logistical chains that are covered also by priority axis 6.

TP CR priority – **“Ensuring high-quality transport infrastructure”**

Quality transport infrastructure means an infrastructure capable of delivering the required transport volumes with accepted levels of transport performance, such as travel time, safety, transport comfort, additional services, cost-effectiveness and these both in passenger and freight transport.

For this TP CR's priority, OP Transport will represent the most important instrument for fulfilling the objective. Support for investment projects is included in all its priority axes, with investments in road and railway infrastructure obviously being the key ones in the context of the Czech Republic.

Major emphasis will be allocated to the elimination of existing bottlenecks, the upgrade of the technical parameters of existing transport infrastructure to required performance and/or safety standards, and the filling in of missing sections of infrastructure, mostly in road and rail.

TP CR priority – **“Ensuring financing in the transport sector”**

Priority is focused on maintenance, operation and development of transport infrastructure, ensuring commitment of public service in transport, the renewal of rolling stock and transport-related research and development initiatives. Also in this case, OP Transport represents one of the most important instruments. In the field of financing of transport infrastructure development, it should play the main role primarily in financing the most important transport networks (TEN-T) that are part of the priority projects included in the decision of the European Parliament and European Council No. 884/2004/EC.

TP CR priority – **“Enhancing safety of transport”**

The accident rate in road transport represents serious problem for the CR, as no sufficient positive development can be observed. In order to improve this situation, it is necessary to carry out measures increasing technical safety of roads, especially by finishing missing sections of motorway, expressway and Class I road network, but also by introduction of information systems for drivers. These types of interventions are foreseen in priority axes 2 and 4, and partly in 5.

Also in the field of railway transport these interventions will take place with positive effect on increase of safety. Modernized sections should fulfil both TSI requirements and other safety standards.

TP CR priority – **“Support for the development of transport in the regions”**

This priority represents a methodical recommendation for developing transport strategies on regional and local level which are proposed to be taken forward through the OP Transport and also ROPs and OP Prague – Competitiveness. Nevertheless, this field is also dealt with by priority axis 5 of OP Transport. It concerns mainly the support for construction of the underground network in Prague, which is a key factor of urban mass transport in the capital city and which allows to maintain a positive ratio between individual and public transport.

Priority axis 5 also contributes to the fulfilment of some of the key objectives of the Strategic Plan of the Capital City of Prague which aims to develop an attractive integrated public transport system. Two main goals will be pursued in this context: i) to increase the role and usage of rail-type transport and ii) to continue with the “open end” system development of the metro network, which will allow for future extensions, while using the temporal terminal sections of the metro as nodes for interconnecting with sub-urban transport solution i.e by constructing transport terminals next to metro stations.

## 2.2.2 Global Objective of OP Transport

To meet the requirements for transport in the CR, the Operational Programme Transport has been drafted, fulfilling the strategic objective of the NSRF for 2007 – 2013 Attractive Environment and its priority **Improving Accessibility by Transport**. This priority represents the global objective of the Operational Programme Transport – **Improving Accessibility by Transport**.

### 2.2.2.1 Links of Global and Specific Objectives of OP Transport

The global objective of OP Transport, **Improving Accessibility by Transport**, will be achieved by the following modes of transport:

- Railways;
- Roads (owned by the State, i.e. motorways and Class I roads – expressways and other Class I roads);
- Inland waterways;
- Multimodal;
- Urban (by means of the Prague Underground, because the City of Prague is a specific area requiring special attention - it is a place where problems of transit and strong agglomeration transport intertwine in a densely populated territory. Prague is also an important destination of both national and international transport: special attention is therefore paid to (ecological) urban mass transport – the Underground in the City of Prague).

Given the identified positive and negative factors of transport in the CR; respecting the principle of sustainable development; based on the CSG for Cohesion and the strategic objectives of the NSRF for 2007 – 2013; and with regard to other strategic documents, namely the TP CR, OP Transport must focus on:

- Continuing the completion and **upgrading of the trans-European TEN-T networks** in the CR, in order that the country be well-connected to neighbouring countries, and thus to create the conditions for increasing the country’s competitiveness, focusing primarily on those segments which constitute a part of priority projects on which work is to be launched before 2010, and which are listed in the European Parliament and Council Decision No. 884/2004/EC (Projects 22, 23 and 25);
- Favouring a modal split towards the more environmentally friendly modes of transport;
- Support for multimodal projects, i.e. integrating railway and inland waterway transport with road transport, notably by focussing on the building and upgrading of railway infrastructure;

- Investment into improving the parameters of Class I road network that is not included in the TEN-T, including the removal of bottlenecks;
- Continuing the construction of the underground as an ecological means of transport, and of systems for road traffic management in the City of Prague.

The selection of the strategy of OP Transport was influenced by both the possibility to intervene and by the extent of the financial support from the CF and the ERDF for the transport sector. According to the Regulations (general, CF, and ERDF), the following can be supported:

- From the Cohesion Fund (CF Regulation, art. 2):
  - Investment into trans-European transport networks, especially for priority projects of European interest, defined in Decision No. 1692/96/EC; and
  - Investments into areas related to sustainable development, which represent a clear environmental benefits in the transport sector; outside of the trans-European networks, into railway, river, and sea transport, intermod transport systems and their mutual interoperability, management of road, sea and air transport, clean urban transport, and public transport.
- From the ERDF (ERDF Regulation, art. 4 par. 8):
  - Transport Investments, including improvement of trans-European networks and links to the TEN-T network; integrated strategies for clean transport which contribute to improving the access to and quality of passenger and goods services, to achieving a more balanced modal split, to promoting intermodal systems and to reducing environmental impacts.

OP Transport specific objectives have been defined in line with the Commission Regulations concerning the cohesion policy targeting for the programming period 2007-2013, with the conclusions of the Lisbon Strategy and principle development strategies in the CR.

Taking into account the essential need to have a high-quality transport infrastructure to enable the functioning of the whole transport system and taking into account the international obligations which the CR entered into, OP Transport was structured into six specific objectives focusing on transport infrastructure. The specific objectives were set in order to allow for a gradual resolution of the most important problems and thus achieving the global objective of OP Transport – **Improving Accessibility by Transport**. This will be achieved by the above-mentioned maximisation and support for the strengths, and minimisation and attempts to mitigate the weaknesses, by supporting opportunities and mitigating the threats:

- **Specific Objective 1 – Improving Railway Transport in the TEN-T Network**  
Specific Objective 1 will be implemented through the Priority axis **Upgrading the TEN-T Railway Network**
- **Specific Objective 2 – Improving Road Transport in the TEN-T Network**  
Specific Objective 2 will be implemented through the Priority axis **Construction and Upgrading the Motorway and Road TEN-T Network**
- **Specific Objective 3 – Improving Railway Transport outside of the TEN-T Network**  
Specific Objective 3 will be implemented through the Priority axis **Upgrading Railway Networks outside of the TEN-T Network**

- **Specific Objective 4 – Improving Transport on Class I Roads outside of TEN-T**  
Specific Objective 4 will be implemented through the Priority axis **Upgrading Class I Roads outside of TEN-T**
- **Specific Objective 5 – Improving Urban Mass Transport by Construction of the Underground and Systems for the Management of Road Transport in the City of Prague**  
Specific Objective 5 will be implemented through the Priority axis **Upgrading and Development of the Prague Underground and Systems for the Management of Road Transport in the City of Prague**
- **Specific Objective 6 – Increasing the Multimodality in Freight Transport and Improving Inland Waterway Transport**  
Specific Objective 6 will be implemented through the Priority axis **Support of Multimodal Freight Transport and Development of Inland Waterway Transport**

### 2.2.3 Explanation and Description of Specific Objectives of OP Transport

Planning of investments into transport infrastructure will take into account the needs given by international obligations but primarily the needs of IPT, needs of public transport and needs of freight transport. In real life, the needs of infrastructure users from various groups often vary significantly. For individual transport the priority is speed, for freight transport other parameters are often more important, such as maximum capacity of vehicles. For public mass transport, the key requirement is accessibility of stops.

According to the TP CR, the development of transport infrastructure must be ensured with respect to a mutually balanced use of the existing networks capacity and their development in all means of transport so that the competitiveness of various modes of transport is not to be reduced. Considering the needs of public transport means to take into account the requirements resulting from transport serviceability of the area, as it is necessary to ensure mutual connection of transport infrastructure development to operating costs of transporters and to the operational concept of public transport.

When determining priorities of project evaluation, it is necessary to keep in mind the characteristics of each transport mode so that they would cover the needs in those segments of transport market, in which it is beneficial to utilize their comparative advantage from the point of view of the society.

In passenger railway transport, this means providing strong transport streams in long-distance, suburban, city and regional transport. In suburban, city and regional transport it has to be the backbone of public mass transport system and must be fully integrated into regional systems of passenger transport. In the field of freight, the railway transport must focus on strong long-distance transport streams by introducing new progressive techniques and new technologies based on using new types of combined transport and by a closer engagement in logistical processes. The development of a network of long-distance routes and of regional network in larger agglomerations will therefore have a big significance. The main criterion of investment priorities on railway must be their real potential of attracting the maximum amount of freight and passengers from road transport and the potential to reduce social costs from externalities (or at least stop the decline).

Road transport should then provide for service all over the territory and in case of freight transport it should gradually be oriented mainly on short-distance transport, i.e. places with insufficient traffic streams for effective use of railway transport and where the role of road transport is non-substitutable. Long-distance road transport has also its place on the transport market but taking into account its negative impact on the environment, the development orientation in the above mentioned directions will be supported by setting new legal conditions for access to road transport market and by performance charges (tolls) for using the road infrastructure. The construction of each motorway and expressway section is beneficial mainly on the regional scale. Long-distance transport links represent a smaller share of the usage of these roads.

A specific area is also represented by multimodal infrastructure or let us say combined transport infrastructure which is mainly composed of CT trans-shipment stations and prospectively also by PLC. Building of PLC will be supported in line with concept based on requirements of trade and industry, taking into account the needs of small and medium enterprises. Placement of particular PLC in the given region will respect facilities of transport infrastructure.

### **2.2.3.1 Cross-cutting Criteria for Investment Preparation and Decision-making for Fulfilment of OP Transport Specific Objectives**

Criteria for preparation and decision making on investments into transport infrastructure take into account the following requirements and actualities:

**Investment urgency**, and notably:

- Technical condition of current infrastructure – investments concentrate on sections in degraded technical condition creating bottlenecks and safety risks (modernization takes place mainly in railway transport);
- Complying with the increase of traffic load / demand on transport market – increase of traffic burden based on short-term and long-term prognoses represents one of the main reasons for building new transport infrastructure and/or intelligent transport system in order to satisfy the needs of the transport market users;
- Meeting commitments resulting from the CR and the EU legislature and international agreements - degree of European importance is then determined by the level of priority, urgency and obligatory force which is given to a project according to the European Parliament and Council Decision (EC) No. 884/2004, international agreement or financial programme priority (priority is given to e.g. the TEN-T network as European-wide important link providing connection to the network of a neighbouring country – connection to the transport network of the neighbouring country could be also the subject of bi- or multilateral international agreement).

**Investment expediency**, and notably:

- Improving the accessibility of regions – improving the accessibility of regions is the main reason for construction of new transport infrastructure; the improved accessibility of regions has a positive impact on the harmonised economic development of regions, which is the main objective of structural policy; improved accessibility can be expressed by time-savings of current infrastructure users and also by reduction of transport cost to, from and across the region; time-savings then



represent one of the main socio-economic benefits of planned investment when elaborating economic analysis of investment/project;

- Impact on the environment – impact of transport investments on the environment is closely monitored during both preparation and implementation of investments and also in strategic documents serving as the bases for preparation of investments – the TP CR, the TP EU and also in the Sustainable Development Strategy; reduction of impacts on the environment is another important socio-economic benefits of the upcoming investments, therefore important investments are under preparation into railway, waterway and combined transport, but in road transport these measures are also particularly stressed (intelligent transport systems, anti-noise barriers, reduction of landscape fragmentation, etc.);
- Effect on equal opportunities – during preparation and implementation of the investment, attention is paid to ensuring the opportunity of equal access to the constructed infrastructure and also to special measures for persons with impaired mobility and orientation.

**Investment feasibility**, and notably:

- Elaboration of investment variants – investments are prepared in variants, but not all the variants are feasible enough so that it would be necessary to finish their analysis to the completion degree of selected variant – this is mainly the case of modernization of the existing transport infrastructure where using the current infrastructure reduces requirements on landscape fragmentation and also the time-consumption related with investment preparation (especially new defining of location in land-use plans, estate buyouts, etc.) and naturally also investment costs;
- Financial possibilities – with regard to limited possibilities of financing and substantial investment needs, the key factor for preparation of an investment is its financial intensity regarding the burden it represents for national public budgets; This is the reason why EU and EIB Funds are used at maximum rate for financing of transport infrastructure (OP Transport, ROP, TEN-T financial instrument); the maintenance costs of newly constructed or modernized infrastructure compared to current costs are also an important factor;
- Public attitude – one of the important factors influencing the preparation and implementation of investments is also the public attitude towards the planned investment; it is not uncommon that one physical person can substantially complicate land buyout, approval of necessary land-use plan or issuing of the building permission; the investor therefore tries to meet all rational requirements of concerned public.

### **2.2.3.2 Specific Objective 1 - Improving Railway Transport in the TEN-T Network**

#### **SWOT Results**

The SWOT analysis indicates that although the CR is a country with a high-density railway network, the TEN-T railway network in the CR has not achieved the service performance that is required by the ever evolving and ever more demanding requirements from the transportation market.

The network of priority projects on the TEN-T network identified in the European Parliament and Council Decision (EC) No. 884/2004 includes, four international transit railway corridors on national territory, the construction of two of which is only now getting underway, and the country is not yet well connected in all directions to the EU railway network. Lines

constituting transit corridors are being upgraded in order to enable the development of quality rail services that can eventually compete with less environmentally friendly transport alternatives, notably with road transportation. This latter goal is to be achieved through the enhancement of the technical and operational standards of the infrastructure towards the reduction of travel times through the increase of commercial speeds and of the fluidity of the traffic, better safety, improved riding comfort, higher cost-effectiveness of operation, together with the development of a new culture of customer relationship based on the promotion of better access to the rail services (notably through better management of information and of commercial transactions for travellers and freight customers alike, better physical access by people with impaired mobility or orientation), the availability of value-added services or the branding of specific transport services or organisations.

As part of the upgrading of the TEN-T network railway lines a number of specific development requirements is to be adhered to: (i) upgrade of important railway junctions ; (ii) introduction of interoperability for both track and vehicles, thus removing obstacles hampering the development of international services; (iii) mitigation of the negative environmental impacts of rail transport (notably through building noise barriers on older sections, where they have been missing); (iv) creation of the conditions for the operation of combined transport on line segments included under the AGTC which belong into the TEN-T network (especially in regard to structure gauge).

The CR lies in the centre of Europe, at a crossroads of trans-European transport corridors, and therefore must urgently complete its backbone network, which is a prerequisite for improving the accessibility of the country, and for improving the conditions for the transit transport streams running through the country.

The completion of the TEN-T railway network will help to enhance the competitiveness of the country, develop tourism, etc.

### **Reflection of regulations and CSG**

Specific objective 1 (specific objective hereinafter “SO”) is designed in line with the general regulation and with the regulation on CF. In the future, it will not be possible to address the growing demand for transport representing an increased pressure on the environment, solely thorough the development of road transport. It is therefore necessary to support railway transport. Fulfilment of SO 1 will be implemented with the contribution from the CF.

SO 1 reflects the CSG by supporting railway infrastructure and preferring projects of European interest, as expressed by the European Parliament and Council Decision No. 884/2004/EC, and puts emphasis on cross-border connections, the introduction of interoperability both into the transport route and transport vehicles. The support for environmentally sustainable networks includes measures making public passenger transport accessible for certain target groups (persons with impaired mobility and orientation).

### **Benefit of SO 1 fulfilment for broader development efforts (EU, CR, regional level)**

By implementing projects of trans-European importance in rail transport, the connection of the CR to the railway networks of neighbouring countries will be enabled, and the implementation of EU parameters on these networks will increase their quality and capacity, thereby supporting the competitiveness of the CR in the EU.

By introducing interoperability in railway transport, easier access of railway transport companies to the railway route will be enabled, and the conditions thereby created for the increased competitiveness of railway transport, which is friendlier to the environment. With

the development of the TEN-T networks, adjoining networks will be connected, and regions which have so far not been adequately connected to railway and multimodal transport will thus become more accessible.

SO 1 fulfilment represents a key contribution to achieving the strategic objective of the NSRF “Attractive Environment”, and also to the objectives “Competitive Czech Economy” and “Balanced Development of Territory”.

### **2.2.3.3 Specific Objective 2 - Improving Road Transport in the TEN-T Network**

#### **SWOT Results**

The SWOT analysis indicates that although the CR is a country with a high-density road network, its networks of motorways and expressways included in the TEN-T networks is not yet complete, and the country is thus not well connected to the EU road network. This has a negative impact, for example, on creating conditions for foreign investment. The CR lies in the centre of Europe and on a crossroads of trans-European transport corridors, and therefore urgently needs to complete its basic network of motorways; this is a prerequisite not only to the improved accessibility of the country, but also to improved conditions for dealing with the transit transport streams leading thorough the country. A significant weakness lies in the missing sections of motorways and expressways, because the existing, low-capacity Class I roads which lead through town centres suffer from congestions and collapses, with an adverse environmental impact (pollution, noise), representing also a threat to traffic safety. Emphasis will be put not only on road infrastructure, but also on transport management systems and localisation and navigation systems. The main contributions of the introduction of intelligent transport systems and services (ITS) are increased traffic safety, reduced congestion, and lower pollution burdens. This can be achieved by informing drivers about dangerous situations, preventing or at least mitigating congestion. This includes, for example, applications for monitoring traffic intensity or the weather, and telematics applications for increased tunnel safety, etc.

The completion of the TEN-T road network will contribute to the country’s competitiveness, increased interest by investors, development of tourism, commuting to work, etc.

#### **Reflection of regulations and the CSG**

SO 2 is designed in line with the general regulation and the regulation on the CF, as the EU is interested in completing the TEN-T networks in all regions. Fulfilment of SO 2 will be implemented with the contribution from the CF

SO 2 reflects the CSG by supporting road infrastructure, preferring projects of a European interest, as expressed by the European Parliament and Council Decision No. 884/2004/EC, and emphasising cross-border connections. The development of infrastructure related to measures for supporting economic growth in the area of roads is focused primarily on road safety.

#### **Benefit of the SO 2 fulfilment for broader development efforts (EU, CR, regional level)**

By implementing projects of trans-European importance in road transport, the connection of the CR to the road networks of neighbouring countries will be enabled, and the

implementation of EU parameters in these networks will increase their quality, capacity, and – above all – safety, thereby supporting the competitiveness of the CR in the EU.

With the development of TEN-T networks, adjoining networks will be connected, and regions which have so far not been adequately connected to the country's backbone network will thus become more accessible, and the quality of connections between regions will improve. Cross-border connections will be improved, old burdens resulting from missing noise barriers will be cleaned up and overall the accessibility of the regions will improve due to quality connection to the system of trans-European networks.

SO 2 fulfilment represents a key contribution to achieving the strategic objective of the NSRF “Attractive Environment”, and also to the objectives “Competitive Czech Economy”, “Balanced Development of Territory”, and “Open, Flexible, and Cohesive Society”.

#### **2.2.3.4 Specific Objective 3 – Improving Railway Transport outside of the TEN-T Network**

##### **SWOT Results**

The SWOT analysis indicates that although the CR is a country with a high-density railway network, the railway network in the CR has not achieved the desired performance hampering the development of quality rail services that match the demand of the customers. The railway infrastructure is in poor technical condition, the quality and condition of safety and signalling equipment is poor and leads to a situation, among other things, where the transport on certain lines is dependent on the human factor, and thus a high level of safety cannot be guaranteed; another problem is represented by inadequate facilities for passengers, which do not create conditions for attractive railway transport. Higher engagement of railway freight transport in modern logistical chains will be achieved by creating the conditions for the development of multimodal freight transport by remedying the inadequate parameters for CT on lines included under the AGTC.

Upgrading or optimisation (a lower level of upgrading) is planned on railway lines that are not included in the TEN-T network, but which are of great national importance, or are important due to their connection to neighbouring countries. Higher track speed will be enabled, and in certain cases, conditions will be created for improving the access of people with impaired mobility or orientation, for improving the travelling culture in passenger transport, and, overall, the conditions will improve in order to create railway transport that would be friendly to the environment and competitive with IPT. Important railway junctions on these lines will also be upgraded. The benefit for freight transport should lie, above all, in the introduction of the interoperability of both the transport route and the transport vehicles, as obstacles among various systems of various EU states will be removed, and greater mobility and safety thereby ensured, and, at the same time, the conditions will be created for the competitiveness of railway transport against the more flexible road transport.

Upgrading of the railway network outside of the TEN-T network will enhance the country's competitiveness, develop tourism, and improve the conditions for commuting to work, thereby contributing to higher employment levels, etc. In freight transport, it will contribute to creating the conditions for ensuring a greater competitiveness of rail transport against road transport.

### **Reflection of regulations and CSG**

SO 3 is designed in line with the General Regulation and with the CF Regulation, as in railway transport even areas outside of TEN-T can be supported. Fulfilment of SO 3 will be implemented with the contribution from the CF.

SO 3 reflects the CSG by supporting railway infrastructure, emphasising cross-border connections, and by introducing interoperability of both the transport route and means of transport. Support for environmentally sustainable networks includes measures making access to public passenger transport possible for certain target groups (persons with impaired mobility and orientation). According to general principles, the development of side connections should focus on multimodality and sustainable transport (water transport).

### **Benefit of the SO 3 fulfilment for broader development efforts (EU, CR, regional level)**

Improvement of the condition and connection of railway networks (outside of TEN-T) in the CR will lead to an increased accessibility of regions by cleaner transport. The benefit of this support lies in the increased use of cleaner modes of transport and represents an environmental improvement, which is important on all territorial levels (EU, CR, regional level).

SO 3 fulfilment represents a key contribution to achieving the strategic objective of the NSRF “Attractive Environment”, and also to the objectives “Competitive Czech Economy” and “Balanced Development of Territory”.

### **2.2.3.5 Specific Objective 4 - Improving Transport on Class I Roads outside of TEN-T**

#### **SWOT Results**

A quality network of Class I roads not included in TEN-T has not yet been completed in the CR, and especially in the cross-border sections, good connections to the road networks of neighbouring countries are missing. An improvement of networks of Class I roads not included in the TEN-T network will supplement the country’s main network of motorways and expressways, thereby contributing to the improved accessibility of all regions, and to improved conditions for transit transport streams through the country. A significant weakness of Class I roads is represented by the absence of ring roads around towns and cities, causing frequent congestions and collapses, with an adverse environmental impact (air pollution, noise) and a negative impact on traffic safety.

The completion of Class I roads will contribute to the greater competitiveness of the country, the development of tourism, and provide support for commuting to work, etc.

### **Reflection of regulations and the CSG**

SO 4 is designed in line with the general regulation and the regulation on ERDF. Fulfilment of SO 4 will be implemented with the contribution from the ERDF.

SO 4 reflects the CSG by supporting road infrastructure, emphasising cross-border connections. The development of infrastructure related to measures to support economic growth in the area of roads is focused primarily on road safety. SO 4 is based on the principles of supporting the development of non-major connections, focused on sustainable transport.

### **The benefit of SO 4 fulfilment for broader development efforts (EU, CR, regional level)**

Improving the condition of Class I roads which do not fall under SO 2, i.e. which are not part of the TEN-T network, is important for the country's competitiveness and for its environment, as congested places on Class I roads will be removed, and by-pass roads around towns and cities built; the increased safety of traffic in the places concerned will be another benefit.

Overall, the SO 4 fulfilment will be of a greater importance for the territory of the country and its regions.

SO 4 fulfilment represents a key contribution to achieving the strategic objective of the NSRF "Attractive Environment", and also the objectives "Competitive Czech Economy" and "Balanced Development of Territory".

### **2.2.3.6 Specific Objective 5 - Improving Urban Mass Transport by Construction of the Underground and Systems for the Management of Road Transport in the City of Prague**

#### **SWOT Results**

An area with a high density of transport streams in passenger as well as freight transport, such as the City of Prague, which lies on the intersection of trans-European transport corridors, urgently needs a completed high-capacity network equipped with transport management systems, localisation and navigation systems. The main benefit of the introduction of ITS and services is increasing traffic safety and managing of congestions forming in places such as the City of Prague. These systems can issue warnings of dangerous situations, and thus prevent them from occurring. This includes, for example, applications for monitoring traffic intensity or the weather, telematics applications for increasing tunnel safety, etc. Problems posed by the failure to meet the increased demand for urban passenger transport in the City of Prague are to be solved through clean transport – the underground, as certain densely populated areas of Prague are not yet connected to the underground.

#### **Reflection of regulations and the CSG**

SC 5 is designed in line with the general regulation and with the regulation on CF. SO 5 fulfilment will be financed from the CF.

One of the principles of the CSG is to support environmentally sustainable networks, which can include mass public passenger transport. It is supported in order to improve the environment, especially in densely populated areas.

### **Benefit of the SO 5 fulfilment for broader development efforts (EU, CR, regional level)**

Given the function of Prague as the country's capital, and as the showcase of the level of the entire region, the benefit of intervention will be important for all territorial levels. In relation to the EU, its good connection through road and railway transport is important, which is addressed in SO 1-4.

The implementation of SO 5 is significant especially for the CR, i.e., the benefit of the interventions in the most significant location of the country, with the greatest number of inhabitants, facilities, and institutions, and with the greatest tourism.

A significant contribution will be in the form of the development of telematics systems for managing and directing road transport.

Continuing in the construction of the underground, as a clean mode of mass urban transport, will be beneficial for the environment, as it is threatened in the City of Prague by constantly exceeding noise and air pollution limits.

SO 5 fulfilment represents a key contribution to achieving the strategic objective of the NSRF “Attractive Environment”, and also to the objectives “Competitive Czech Economy” and “Balanced Development of Territory”.

#### **2.2.3.7 Specific Objective 6 - Increasing the Multimodality in Freight Transport and Improving Inland Waterway Transport**

##### **SWOT Results**

SO 6 contains support for multimodal freight transport as a clean mode of transport, which would make a greater use of railway and possibly also waterway transport. It includes support for multimodal transport by supporting establishment of new multimodal terminals, multimodal technologies, construction of CT transshipment stations, as well as possible support for the purchase of transport vehicles and CT units. Another objective will be to support logistics from public sources, in order to increase the involvement of road and water transport in logistical chains.

Support for the development of inland water transport, as an environmentally friendly means of transport, will be based on weaknesses of water transport in SWOT analysis. It will be focused on elimination of insufficient parameters on Elbe downstream and on the section to Pardubice. It will aim to improve the conditions for implementation of logistical processes.

As an intersection of the above mentioned SO, investments will be also granted for modernization of the river fleet, which will lead to lower negative effects of water transport on the environment and/or to support of multimodality in freight transport.

##### **Reflection of regulations and the CSG**

SO 6 is designed in line with the general regulation and with the regulation on ERDF. Fulfilment of SO 6 will be implemented with the contribution of the ERDF.

##### **Benefit of the SO 6 fulfilment for broader development efforts (EU, CR, regional level)**

SO 6 fulfilment is a benefit especially in terms of mitigating the adverse environmental impact of transport. The benefits will be seen, above all, on the supra-regional level.

SO 6 fulfilment represents a key contribution to achieving the strategic objective of the NSRF “Attractive Environment”, and also to the objectives “Competitive Czech Economy” and “Balanced Development of Territory”.

#### **2.2.4 Links of OP Transport SO to the NSRF Priorities**

The implementation of OP Transport and of its various projects will indirectly contribute to supporting also other strategic objectives of the NSRF, for example “Balanced Development of Territory”.

**Table 22: Connection of OP Transport SO to NSRF Priorities**

<b>Strategic objective</b>	<b>Priority</b>	<b>SO 1</b>	<b>SO 2</b>	<b>SO 3</b>	<b>SO 4</b>	<b>SO 5</b>	<b>SO 6</b>
Competitive Czech Economy	Competitive business sector	x	x	x	x	x	x
	Support of R&D capacity for innovation						
	Development of Sustainable Travel and Tourism Sector and Utilization of the Potential Offered by Cultural Heritage Priority	x	x	x	x	x	x
Open, Flexible and Cohesive Society	Education						
	Increasing employment and employability	x	x	x	x	x	x
	Strengthening of social cohesion	x	x	x	x	x	x
	Development of an information society	x	x	x	x	x	x
	Smart administration						
Attractive Environment	Protection and improvement of the quality of environment	x	x	x	x	x	x
	Improving accessibility to transport	xxx	xxx	xxx	xxx	xxx	xx
Balanced Development of Territory	Balanced regional development	x	x	x	x	x	x
	Development of urban areas			x	x	xx	x
	Development of rural areas			x			

Note:

- xxx - Direct link between the NSRF Priority and OP Transport SO. OP Transport SO is the primary tool for implementing the NSRF Priority;
- xx - Direct link between the NSRF Priority and OP Transport SO, but the share of OP Transport SO is not dominant;
- x - Indirect link between the NSRF Priority and OP Transport SO.

## 2.2.5 Cross-cutting Issues

### 2.2.5.1 Application of the Partnership Principle

During the drafting of the OP and proposing of the implementation structure, the principle of partnership was broadly applied in line with Article 11 of the General Regulation. According to this article the decisions on assistance from the EU Funds are made by the European



Commission, in close co-operation with the Member State concerned. Each Member State appoints partners on the national, regional, and local levels, taking into consideration the condition of the equality of men and women.

OP Transport was drafted by the MoT in close co-operation with representatives of the Centre of Transport Research. The programming document was subject to continuous discussions with the relevant MoT sections and then with other partners. Relevant comments were incorporated into the document, and the document was updated vis-à-vis the NSRF, and other strategic documents. The process of the proposed strategy is closely monitored, the strategy itself is focused on Community priority axes of sustainable development through enhanced growth, competitiveness, and employment and the protection and quality of the environment (in line with Article 3 of the general regulation).

Discussions with partners during the preparation of OP Transport took place on several levels described below and significantly contributed to the final form of OP Transport.

Elaboration of a separate OP Transport was discussed in detail within the **working group Accessibility and Infrastructure** which was set up by the Steering and Co-ordinating Committee for co-ordination of assistance granted by the European Communities in the programming period 2007 – 2013 on the level of State under administration of the MfRD for programming purposes. This working group constituted of representatives of relevant ministries, cohesion regions and municipalities, expert organizations, social partners and NGO (namely SOS Prague and CZ BIOM). The main goal of this working group was to define the content of OP Transport, specify its content with regard to other OPs and eliminate possible overlaps with the OPs also in terms of national subsidy programmes.

In February 2006 the **Preparatory Committee OP Transport** was set up at the MoT. Among active members of this committee belonged representatives of relevant MoT departments and representatives of the following institutions: the RMD CR, the SFTI, the RIA, the WD CR, the MoF, the MfRD, the MIT, the Ministry of Informatics, the Ministry of Agriculture, the Association of Regions of the Czech Republic, Prague City Hall, the Transport Union of the Czech Republic, representative of the non-governmental non-profit organisation (namely the Studio for the Environment), the Union of Towns and Municipalities of the Czech Republic and the Government Committee for People with Disabilities. The main purpose for establishing this committee was to identify partners for negotiations on OP Transport. OP Transport implementation team regularly contacted these partners with regard to current issues and consulted working drafts of OP Transport. The committee met several times in 2006 to discuss work progress on OP Transport and methods of its implementation. Moreover, all committee members were provided with complete set of OP Transport documents (including draft versions) and related background materials.

Elimination of factual overlaps between OP Transport and topical and regional Operational Programmes was dealt with through bilateral or multilateral negotiations.

The ex-ante and SEA evaluators were important and indispensable partners in the process of OP Transport preparation and drafting. Their relevant comments were incorporated into the text of the Operational Programme as they arose, subject to consultation with the evaluators and OP Transport MA (see Chapter 2.2.7).

Consolidated documents – OP Transport drafts, including updates based on the SEA and ex-ante assessment of the Operational programme were regularly placed on the MoT web pages in section dedicated to the EU funds to be accessible to the general public. The Ministry also regularly received public suggestions on amendments of OP Transport within the SEA assessment and administered requests for information. Further, a “round table” was held

in Prague to discuss OP Transport contents with the public on the occasion of the SEA assessment and international conference on financing of transport projects from the EU sources, which took place on 10 – 11 May 2006 free of admission; the conference was attended by the representatives of MoT together with Czech experts, interested public and representatives of neighbouring countries. Settlement of comments is available on the MoT web pages.

The most important suggestions and their settlement within OP Transport:

Partner/s	Comment description	Settlement – MoT standpoint
Regions	OP Transport should not deal with projects where the decision power was delegated to regions.	Accepted, OP Transport includes only interventions on national network, Class II and III road networks are included in regional OPs.
Prague, several public comments	Include support for UMT into OP Transport.	Accepted, OP Transport included support for the Underground in Prague. Moreover, its allocation was increased in summer 2007; other mass transport is supported from the ROP.
More subjects - public	Comments on specific projects (positive and negative) listed in indicative list (examples of two comments are described below).	General reaction of MoT on comments raised to specific projects:  Not accepted with explanation – during drafting of OP Transport, it is impossible to review particular constructions, this review takes place during the EIA assessment and preparation of constructions. The MoT obliges itself that all projects financed from OP Transport will be subject to the EIA and economic analysis procedures to ensure compliance with national and EU legislation before being financed from the EU sources.  Nevertheless, based on these requirements the MoT stressed that the major projects are indicative only.
Citizens for protection of housing and the environment in Troubsko, Citizens for protection of quality housing in Brno – Kninicky, Rozdrojovice and Jinacovice and others	Exclude route R52 Pohořelice-Mikulov from the indicative list and replace it by alternative routing Jihlava- Znojmo-Wien or Brno – Breclav – Wien	Concrete variants of transport line routings included in Annex 1 of the OPT are only indicative. The final routings will be decided after completion of the EIA in conformity with the EIA Directive and the procedures of approval in the CR. The findings of a comparative study will be submitted as part of the formal application for co financing from OP Transport.

Citizens for protection of housing and the environment in Troubsko, Citizens for protection of quality housing in Brno – Kninický, Rozdrojovice and Jinacovice, Civil corporation “Brno citizens against construction of R43 expressway in section Kurim – Troubsko”, and others.	Exclude route R43 from the indicative list.	Accepted.
Public, e.g. Mr. Rola Žitný, Brno	Do not mention references to draft documents (in this case the General Plan of Transport Infrastructure Development - GEPARDI).	Accepted, chapter on the GEPARDI was excluded. References remained only to the NSRF, which at that time was not approved yet.
More subjects - public	Annexes 2-4 OP Transport (maps of transport network in the CR) show one variant and therefore could be considered as plans of routings – suggestion to exclude them.	Accepted – Annexes 2-4 were excluded from the OP draft

In general the MA OPT declares that in accordance with standard national procedures and in conformity with relevant EU legislation (e.g. EIA and nature protection directives and C/B/economic analysis) the variants of transport line routings are assessed during the pre-investment phase of the projects.

Use of the partnership principles is also an important step towards successful implementation and coordination, both in the direction from the NSRF and towards lower levels of implementation. The partners participate in implementation, monitoring and evaluation of OP Transport through the Monitoring Committee (see Chapter 4.10.1).

### 2.2.5.2 Description of Primary Findings of Ex-ante and SEA Assessments

#### Ex-ante evaluation

Ex-ante evaluation is conducted on an ongoing basis, as the various chapters and versions of OP Transport are drafted. OP Transport MA entrusted the ex-ante assessment to the company DHV CR spol. s r.o., represented by Mr. Vaclav Stary and Mr. Jan Kasik.

Four partial reports were elaborated in the period from March to April 2006 during the processing of ex-ante evaluation, which are summarized in the preliminary Final report from May 2006. The Final report was elaborated in February 2007. The objective of an ongoing assessment was to provide the author and commissioner of OP Transport with comments and recommend amendments to the analysis produced, and the organisation of the strategy, and to propose priority axes in line with the prescribed methodologies.

The 1<sup>st</sup> partial report evaluates the working version of the programme from February 2006, the evaluation subject of the 2<sup>nd</sup> and 3<sup>rd</sup> partial report was the working version from March 8, 2006, the 4<sup>th</sup> partial report concerns the revised version of OP Transport from March 30, 2006, the preliminary final report evaluates the programme version from April 27, 2006 and the Final report to the version from February 15, 2006.

The basic objective of the analytical preparation stage assessment was to verify whether the primary problems in transport have been identified in the analyses, and whether the nature of development potential was assessed. Links of the analyses to the NSRF, and CSG were also assessed. The assessment also studied whether the analysis and structure of the strategy and priority axes are in line with the Council Regulations 2004/0163 (AVC), 2004/0166 (AVC), and 2004/0167 (AVC). Furthermore, compliance with the Methodology for the Drafting of Programme Documents for 2007–2013, of the MfRD, version II, from February 2006, was examined.

No successful development strategy can be created without an adequate understanding of the primary problems, needs, strengths, and weaknesses. These conditions have a substantial impact on the possibilities of addressing the problems identified, and must be reflected in the proposed strategy.

The evaluation focused, above all, on answering the following **selected major questions**:

- Is the analysis covering the primary problems of the field?
- Is the analysis and SWOT analysis focused on problems which are to be addressed by the CF and ERDF?
- Did the SWOT adequately summarise the most important findings of the situation analysis, and rank them according to their importance?
- Is there a clear connection between the situation analysis, SWOT analysis, strategy, and the selection of priority axes, and are they consistent with the global and specific objectives? Is the rationale given for the priority axes proposed in line with national and community policies and documents, and with the general cohesion policy objectives?
- Is the manner of implementation specified for each Priority axis?
- Can the objectives which are to be achieved be quantified through indicators with respect to all Priority axes?
- Were the problems on which the Priority axes focus identified in the situation and SWOT analyses?
- Has it been specified which institutions will perform specific roles in the implementation system?

### **Summary of main closings, findings, recommendations and information and how they were dealt with**

*Based on EX-ANTE Final report – shorten and with MA comments and actualisations*

### **Relevance of proposed interventions and indicators**

Proposed interventions arose from the selected strategy, which sets global objective and specific objectives of OP Transport and its priority axes. They fulfil completely the global objective Improvement of accessibility by transport. Priority axes preferring development elements in transport infrastructure, which is a key to economic development of the area, prevail. For this objective the OP Transport is logically and factually well set up in individual priority axes and areas of intervention. Examples of interventions are suitably described.

It was repeatedly recommended during ex-ante elaboration to connect objectives of priority axes with outputs of situation analysis and SWOT analysis.

*MA prepared a new version of SWOT analysis. This new SWOT analysis includes better connection between social economic analysis, strategy and SWOT analysis. After initial comments from the EC redrafted social economic analysis and strategy part of OP Transport was introduced.*

Sometimes the output indicators are not available for priority objectives and therefore it is impossible to substantiate fulfilment of the objectives. Specific objectives are proposed more accurately and with better connection to output indicators, but they are not too differentiated and tend to be of very general nature.

*With respect to comments of EX-ANTE evaluator and comments from EC Position Paper and requirements and recommendations of EC Working Paper No. 2 MA redrafted the set of monitoring indicators. The new set is more suitable to measure actual progress of OP Transport and its impact on TP CR objectives fulfilment.*

### **Evaluation of expected interventions effects**

The outcome of OP Transport realization should meet the objectives of:

- Improved and sustainable competitiveness of railway transport
- Improved accessibility of regions by railways
- Improved accessibility of urban centres by suburban railways
- Improvement of interregional accessibility by road transport through use of newly constructed motorways and expressways.
- Increase share of transport market of railway and water transport
- Investments to clean urban transport in Prague area

Impact of OP Transport realization will be stimulation of economical growth and decrease of unemployment in the regions, lower accident rate and improvement of environmental situation in habited areas. Effectiveness of financial support according to priority axes will be high; the described problems are major transport problems of CR with direct impact on economical situation.

There is unclear separation of investments regarding support of urban public transport between ROPs and OP Transport.

*The original area of intervention of priority axis 6 (support of regional urban transport) was transferred into ROPs. Priority axis 5 is focused only on city of Prague and specifically to underground only. Other modes of public urban transport within the region of Prague are financed from OP Prague Competitiveness.*

### **Evaluation of financial resources**

Financial resources of OP Transport were divided into the indicative financial plan as required by appropriate EU Regulations.

Financial resources of OP Transport (21% of NSRF total allocation) do not fully represent the significance of transport infrastructure for economical growth.

*Share of OP Transport on NSRF allocation has been increased to 22,5%. Most of the increase was used for funding of Railway TEN-T projects.*

*MoT in cooperation with MfRD and Regions also achieved the increase of ERDF allocation for ROPs to be used for fulfilment transport objectives.*

**Evaluation of absorption capacity**

Absorption capacity of projects which could be supported by OP Transport is expected 890 bill. CZK. This capacity exceeds financial possibilities of both national sources and EU funds.

The most important risk, which can decrease real absorption capacity is the delay of preparation of projects, which could lead to problems with n+3 and n+2 rules and especially in case of higher concentration of financial resources in last two years of the programming cycle, where higher available amounts can influence the decisions on support of individual projects from transport need to the need of spending EU funds in time.

*MA prepared Plan of Transport Infrastructure Investment 2008 – 2013 that should ensure proper allocation of OP Transport sources during whole programming period with respect to the allocation of national and other sources.*

**Conclusions of the ex-ante evaluation**

The elaborated ex-ante evaluation noted that several partial deficiencies remained in linking the situational analysis to SWOT analysis and also between the SWOT analysis and the strategy proposal however; the description of initial situation in each priority axis provides a very pregnant basis for formulation of relevant global and specific objectives and intervention areas. The system of proposed priority axes and intervention areas corresponds to the transport needs in the CR. Proposed intervention areas and intervention examples provide an efficient system for submitting and evaluation of individual projects for support. All interventions are economically justified and lead to fulfillment of OP Transport global objective Improving Accessibility by Transport. Priority axes and objectives are, according to the ex-ante evaluator, in accordance with the NRP, the CSG, TP CR and TP EU. The system of indicators is proposed suitably for quantification. The financial framework is proposed adequately to the importance of the priority axes. Even though OP Transport received a lower allocation than would be suitable with regard to the importance of transport infrastructure for promoting competitiveness and the high costs of its construction, the distribution of funds was done in order to suit the needs. The absorption capacity is absolutely sufficient with regard to allocated funds. The implementation is prepared in full and in a straightforward way.

Full texts of the ex-ante assessment are deposited in the archive of OP Transport Managing Authority.

**SEA Assessment**

The impact assessment of concepts on the environment in the CR is regulated under the Act No. 100/2001 Coll. on the environmental impact assessment as amended by the Act No. 93/2004 Coll. The environmental impact assessment of OP Transport (hereinafter “the SEA”) was performed in line with requirements of the above mentioned Act transposing the SEA Directive (Directive 2001/42/EC). The assessment was undertaken with respect to the Methodology of the Environmental Impact Assessment (Ministry of Environment, edition “Planet” 7/2004), Handbook on Environmental Assessment of Regional Development Plans and the EU Structural Funds Programmes (DG XI, 1998) and the latest methodological

guidance Handbook on SEA for Cohesion Policy 2007 – 2013 (Greening Regional Development Programmes Network, February 2006).

OP Transport was also assessed under the Act No. 114/1992 on protection of nature and landscape, as subsequently amended (i.e. the impact assessment on the NATURA 2000 localities).

The subject responsible for the SEA successively commented on each version of OP Transport whether and in which form it contains environmental issues in relation to the referential objectives of environmental protection. The comments were continuously included in wording of individual OP Transport versions.

In order to find out whether the implementation of OP Transport might have serious impact on the environment, each proposed priority axis was assessed with regard to referential objectives of environmental protection, i.e. whether and how the priorities contribute (or not) to fulfilment of referential objectives. The type of impact and its potential of cumulating and synergy with other impacts was also assessed. Considering the strategic character of OP Transport, it was not possible to identify potential specific negative impacts on the environment in particular localities or areas. The main aim of OP Transport SEA assessment was to find whether OP Transport sufficiently respects environmental issues and protection or whether it possibly contains proposals which could pose potential threats to the environment. The measures preventing, reducing or compensating potential negative environmental impacts of the concept are to be understood as a form and method of reflecting environmental issues and protection in individual parts of OP Transport.

The result of SEA process of OP Transport was a statement that OP Transport shall have not overall negative impact on environment if several conditions are met.<sup>3</sup>

Objectives of the OP Transport should ensure that the realised projects will have positive impact on the environment due to favouring environmentally friendlier modes of transport, investments in noise reduction and improved safety in all modes of transport. Constructions of bypasses shall reduce air pollutions and noise levels in urban areas.

Based on the evaluation of particular support areas with respect to the referential objectives of environmental protection, the proposals for minimisation of environmental risks, proposal of environmental criteria for project selection and proposal for their introduction into the system of evaluation and selection of projects submitted for OP Transport assistance were presented<sup>4</sup>

Implementation of this proposal will ensure that no projects with negative environmental impact will be supported; on the contrary the support will be aimed at projects, which can help to improve the quality of the environment in the CR. The impact monitoring method of OP Transport implementation on the environment in the CR was also proposed.

OP Transport SEA elaborator presumes that proposals of evaluated OP Transport monitoring and evaluation criteria will be adjusted. SEA elaborator proposed additional monitoring and evaluation criteria which was incorporated in the OP Transport Project application form (see [www.opd.cz](http://www.opd.cz) – project application) and are evaluated within the project approval process. Those monitoring indicators will be included in the Annual implementation report presented

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<sup>3</sup> See affirmative statement to the proposal of OP Transport ([www.opd.cz](http://www.opd.cz) or official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K>)

<sup>4</sup> See Concept assessment according to the Act No. 100/2001 Coll., on EIA, as amended by Act No. 93/2004 Coll., including the assessment of impacts on bird areas and sites of European importance pursuant to Act No. 114/1992 Coll., on nature and landscape protection as amended. Document is available at official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K>

to the MC. Incorporation of those indicators was one of the conditions (in accordance with Art. 9 of the SEA Directive) of concurring opinion of MoE to SEA of OP Transport.<sup>5</sup>

According to the form of OP Transport implementation and according to the character of particular submitted projects in the subsequent implementation documents. Fulfilment of this presumption means to secure sufficient personnel and expert capacities within the whole system monitoring the impacts of OP Transport implementation, as is also seen from SEA conclusions concerning the NSRF.

Transboundary consultations regarding the SEA of the OP Transport has been considered but MoE did not find any legal basis to start this procedure from CR point of view and no neighbouring member state requested those consultations. Similar approach has been taken by MoE with regards to SEA of the NSRF upon which is OP Transport based. The SEA team under the command of Jana Svobodová suggested issuing an affirmative opinion of the SEA to OP Transport. A round table took place during the SEA implementation process – meeting with the public representatives on May 9, 2006 in Prague and public discussion on OP Transport draft and its SEA assessment on October 30, 2006 in Prague. On November 13, 2006, the Ministry of Environment issued a conforming opinion to the concept proposal “Operational Programme Transport for 2007 – 2013” under the Act No. 100/2001 Coll. on environmental impact assessment, as amended by the Act No. 93/2004 Coll. which corresponds to the statement mentioned in Art.9 of the SEA Directive and was made public at the official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K>.

Concurring opinion of the MoE is also based on public comments and suggestions with regard to OP Transport raised within the SEA process. Comments which were raised before public consultation took place are included in the Concept assessment<sup>6</sup> and the complete comments of the public including those in the concept assessment and comments raised by partners are made public at [www.opd.cz/cz/programove-dokumenty](http://www.opd.cz/cz/programove-dokumenty).

### Assessment of indicative list of major projects

OP Transport was presented to the SEA assessment including its Annex 1 – indicative list of major projects. The submitter declared in the text of OP Transport that maps (afterwards excluded based on public comments) and lists of projects included in Annexes 1, 2, 3 and 4 are to be considered as indicative. Their data can be amended and changed during the programming period according to approval procedures in the CR concerning both particular projects and their cumulative costs and variants of transport routings in conformity with EU relevant legislation (EIA and nature protection).

Taking into account this explanation of the MoT, submitted background documents to the SEA and also discussion in the SEA team, the SEA administrators did not comment on these

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<sup>5</sup> List of indicator – see also *Concept assessment according to the Act No. 100/2001 Coll., on EIA, as amended by Act No. 93/2004 Coll., including the assessment of impacts on bird areas and sites of European importance pursuant to Act No. 114/1992 Coll., on nature and landscape protection as amended. Document is available at official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K> chapter 9.2*

Conditions of concurring opinion see - Affirmative statement to the proposal of OP Transport ([www.opd.cz](http://www.opd.cz) or official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K>)

<sup>6</sup> See appendix No. 4 of *Concept assessment according to the Act No. 100/2001 Coll., on EIA, as amended by Act No. 93/2004 Coll., including the assessment of impacts on bird areas and sites of European importance pursuant to Act No. 114/1992 Coll., on nature and landscape protection as amended. Document is available at official web page of SEA processes in the CR <http://eia.cenia.cz/sea/koncepce/detail.php?id=MZP026K>*



annexes as these projects will be subject to further processes which are required by the Czech legislature – EIA – Act No. 100/2001 Coll., as amended, NATURA 2000 – Act No. 114/1992, as amended, and land-use planning and planning and building permissions according to the Act No. 50/1976, as amended. This means that variant selection and conditions for their implementation will be set during these above mentioned processes.

Nevertheless, based on requirement from the Ministry of the Environment, the table of projects over CZK 1.5 bn was included in the Concept assessment according to the Act No. 100/2001 Coll. on environmental impact assessment, as amended by the Act No. 93/2004 Coll. including impact assessment of the concept on the sites of European importance and bird protection areas according to the Act No. 114/1992 Coll. on protection of nature and the landscape, as amended (hereinafter “SEA assessment”). This table includes information on the state of construction/projects with regard to the EIA process, planning and building permissions and NATURA 2000 (connection to NATURA 2000 areas) – see Chapter 6.4 of the SEA assessment.

### 2.2.5.3 Horizontal Themes

The focus of OP Transport for 2007–2013 ties into the priorities of the NSRF, and to the definitions of priorities for economic and social cohesion for 2007–2013. The horizontal themes that are to be respected, pursuant to the new regulations, were also taken into account in defining the priority axes. These include the equal opportunities of men, women and the environment. The information society, which had also been a horizontal priority, has been shifted into the priority areas. Horizontal themes are monitored throughout OP Transport, although in the indicators, they only become evident in the area of the environment in the extent of SEA NSRF and SEA OP Transport requirements and above the list of indicators included in chapter 3.

#### 2.2.5.3.1 Sustainable Development

In transport, sustainable development is such a development which meets the contemporary needs, without preventing the possibility of future generations to meet their needs. The basic document on the national level that addresses the issues of sustainable development in the country is the Sustainable Development Strategy of the CR.

**The strategic and partial objectives and instruments of the Sustainable Development Strategy of the CR** are formulated here, in direct and indirect relation to transport. The following are important for OP Transport:

In the **economic pillar**, in the area of **enhancing the competitiveness of the economy**, the following must be ensured in Objective 1, i.e. maintaining the stability of the Czech economy and ensuring its resilience, in the face of external and internal influences:

- A quality transport infrastructure (connection to trans-European transport networks, preferring renovation and upgrading of existing transport routes to new construction, while implementing measures preferring railway freight transport to road transport; improving the inadequate parameters of transport infrastructure on the regional and local level, and quality maintenance);
- A quality transport serviceability in the CR,
- Conditions for the sustainable mobility of people and freight (user-focused transport);
- Development of environmental friendly transport (public transport, support for the use of alternative fuels).

Under Objective 2, i.e. the creation of the conditions for economic growth capable of ensuring, with minimal environmental impact, the optimal employment, public services financing, and a gradual reduction of the internal debt, the following must be ensured:

- Conditions for the development of multimodal transport systems in logistical chains, with an emphasis on the development of clean transport;
- Equal access and equal competitive conditions for transporters on the transport market,
- Conditions for sustainable development in the division of transport work among various fields.

Under Objective 3, i.e. for a flexible knowledge and skill-based economy, the following must be ensured:

- Effectiveness of transport and support for setting up of integrated transport systems.

In the **environmental pillar** in the area of protection of nature, environment, natural resources, and landscape under Objective 2 (minimisation of conflicts of interest between economic activities and environmental protection), the following must be ensured:

- In the **construction of transport infrastructure**, minimisation of the necessary occupation of land, and the reduction, through technical measures, of the impact of line construction on environmental components (already at the preparatory stage).

In the **administration of public matters**, the following must be ensured:

- Improving transport serviceability and transport networks, to ensure easy access to employment, education, social needs, and markets for investors, without reducing the quality of the environment.

It must be emphasised that the EC environmental protection policy is an essential basis of the NSRF, which is clearly reflected in the formulation of the global objective. OP Transport upholds those principles. Environmental aspects are an important criterion for project selection. Emphasis is put on preserving and reviving natural heritage, the cultural character and ecological stability of landscape, and on increasing the environmental awareness of citizens and their involvement in the decision-making process. The attempt to achieve a reduction of the negative impact of transport on the environment appears in all Priority axes of OP Transport. This includes, above all, monitoring air or soil pollution and noise levels.

#### **2.2.5.3.2 Equal Opportunities**

The principle of the equal opportunities (of men and women and groups endangered by social exclusion) will be applied throughout the entire implementation of OP Transport. Public transport is one of the prerequisites for ensuring personal mobility, especially for people with impaired mobility or orientation and also for parents with children.

Another basic cross-cutting objective of the TP CR is to create conditions for the physical accessibility of transport for all groups of inhabitants.

Priority axes of OP Transport, which include intervention areas for railway transport and underground construction, will include creating conditions for improved access of persons with impaired mobility and orientation. Where relevant (e.g., in the renovation of a railway junction), the possibility of wheelchair access will be taken into account. In road infrastructure, this includes wheelchair accessible crossings equipped with information systems, etc., where relevant.

#### **2.2.5.4 Application of the Principle of Partnership of Public and Private Sector (PPP)**

The model of Public Private Partnership (PPP), which is based on the partnership of public and private sectors, newly finds support in the binding EC legislation which sets conditions for drawing the EU funds in the new programming period 2007 – 2013.

The PPP project is based on a long-term contractual agreement in which the public and private sector mutually share benefits and risks resulting from ensuring public infrastructure or public services. The advantage of PPP is consolidation of experience, knowledge and skills of both sectors and shifting of responsibility to the sector that is more capable to manage it.

In most cases, the public sector entrusts the private sector with the execution of a certain service and thereby benefits from its organizational and technical knowledge and skills which are stimulated not only by earnings from invested capital but also by risk of its loss.

In general, the objective of PPP projects is to acquire the basic infrastructure that will serve for public interest and also to provide certain types of public services which the private partner can guarantee in better quality (i.e. the best value for money), more efficient manner and for price acceptable for public sector.

In justified cases it proves to be appropriate to implement, within the measures of the Operational Programme, the projects which include partnership of public and private sector. Approval of projects of this type is preconditioned by fulfilment of the following criteria:

- Implementation of the PPP project will provide a higher value for money to public sector and ensure a higher quality of the project;
- Private sector will take over the risks which would be born by public sector in case the project would not be implemented by the form of PPP.

The main importance of PPP is strengthening of absorption capacity of the CR without the corresponding budget burden of traditional public contracts. In the PPP model, the reimbursement of liabilities of public sector resulting from investment acquisition is postponed until the object of investment is put into operation. The public entity contributes to the reimbursement of costs for the investment and provided services (e.g. by the way of charges for accessibility) throughout duration of concession agreement.

Characteristics of PPP projects co-financed from the EU funds:

- Long duration of the project;
- Public subject or SPV in the role beneficiary;
- Financing of the project from private and public sources, whereas public sources are the EU funds and national public sources;
- Risks resulting from implementation and operation of investment will be divided between public subject and private partner, whereas public sector will obtain risk management guidance from private sector;
- Public services will be secured in the initial phase by the private investor.

When selecting and implementing PPP projects, it is necessary to pay enhanced attention to the preparatory phase of the projects which mainly consist of:

- Elaboration of a technical design study;
- Execution of a legal due-diligence of the project;
- Evaluation of the PPP option profitability compared to a traditional public contract;

- Calculation of value for money;
- Realization of public procurement for the private partner in accordance with the legislation on public contracts and concessions;
- Establishing a transparent framework of rules according to standard applicants and types of foreseen projects, which will serve to a general popularization of PPP and at the same time show the possibility to efficiently combine the public and private sector financing with the co-financing from EU sources.

During the preparation of PPP projects, it is necessary to respect the provisions of the Act on public contracts and concession law, especially rules of concession proceeding, then eligibility and suitability of EU funds beneficiaries and requirements for eligible (reimbursable from EU resources) project expenditures.

PPP projects will have increased requirements on the technical and administrative capacity for implementation and management and also for monitoring and control activities. If the beneficiary of support from EU funds is to be a public subject, it is necessary to define in the concessionary agreement all data which will be required during monitoring and control activities from the private partner.

The preparation of PPP projects within the scope of priority axes of this Operational Programme has to take into account the system of yearly allocations of financial resources from the OP and therefore set the project stages in line with these rules. On the other side, it is necessary to allow for overrun of the project exceeding 24 months and in the last resort over the whole programming period 2007 – 2013.

Financing of transport infrastructure through PPP is currently under preparation. With respect to lack of practical experience with the application of this model in the CR, the Government chose “priority projects” which are in transport represented by the following: “AirCon” (modernization of railway connection Prague – Kladno plus construction of connection to the Prague-Ruzyně airport, including its operation and maintenance) and “D3” (construction, financing and maintenance of D3 motorway section Tabor – Bosilec). AirCon project is in its preparatory stage, for the D3 project the consultants were already selected.

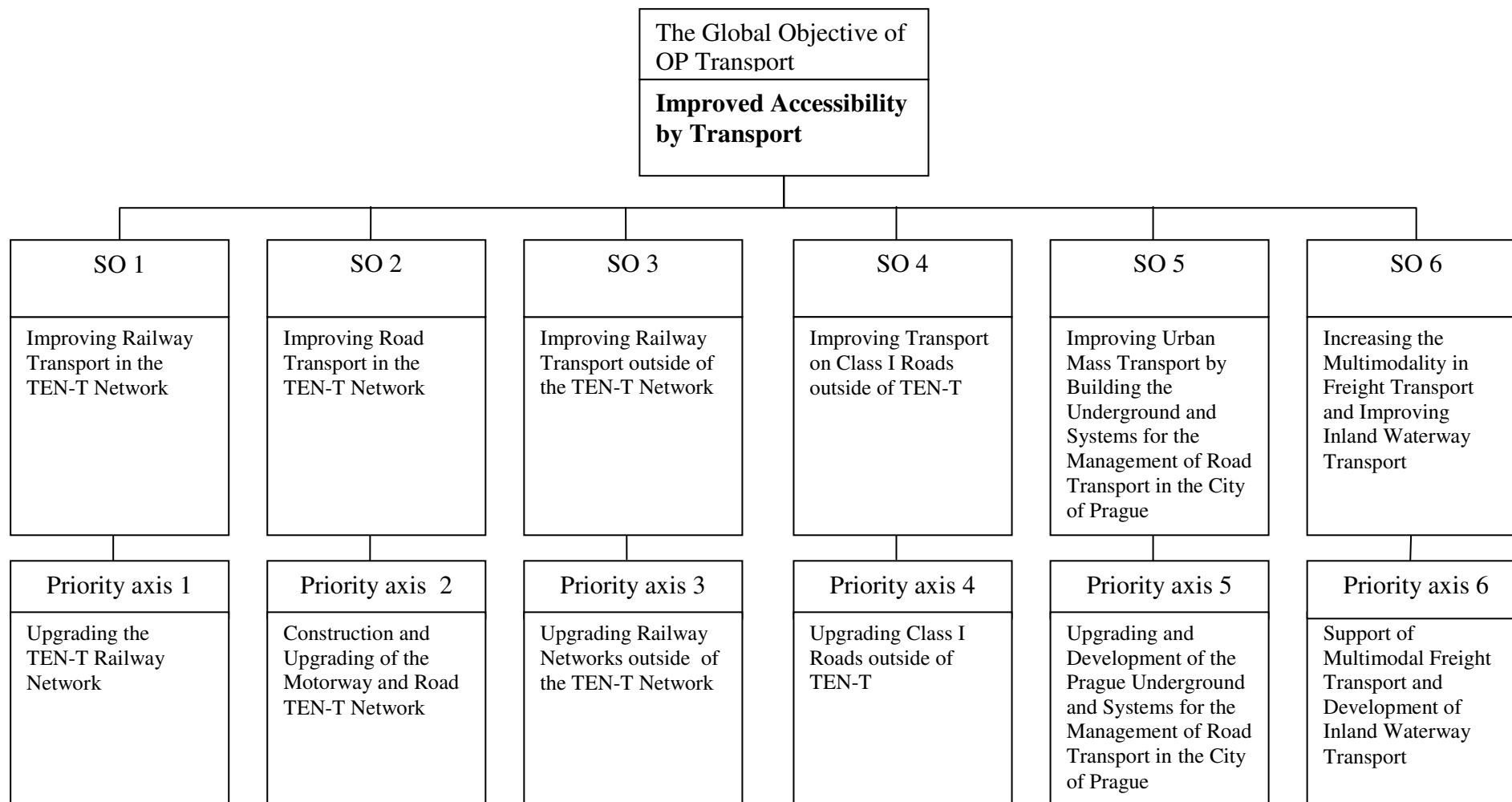
Taking into account the limited amount of financial sources compared to the needs for construction and maintenance of high-quality infrastructure, the partnership of public and private sectors is expected to become a significant source of financing in the future. However, this model will be applied more often in the second half of the programming period 2007 – 2013 and then in the programming period 2014 – 2020 as obtaining practical experience with implementation of approved priority projects cannot be expected sooner than in several years.

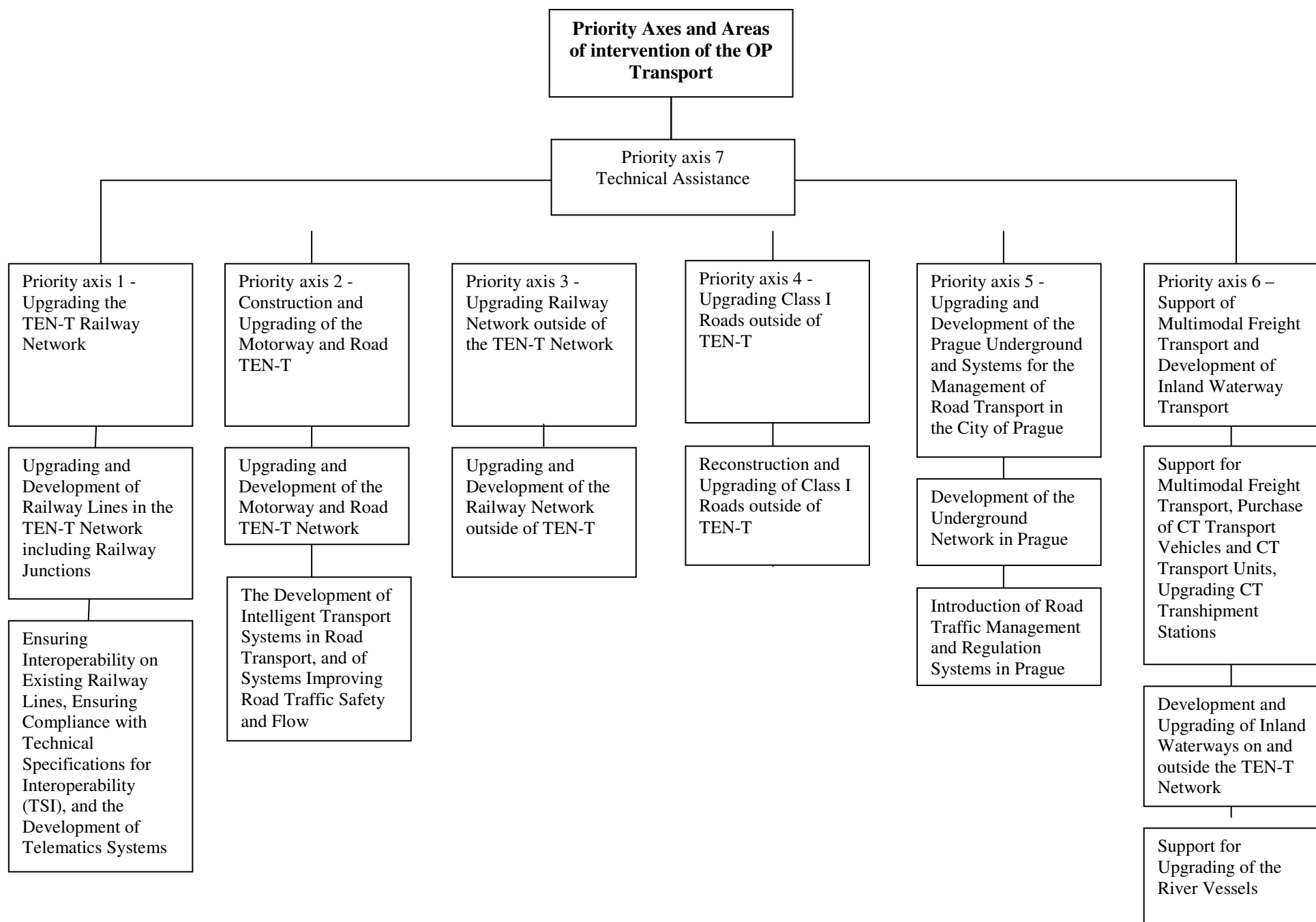
### 3 PRIORITY AXES AND INDICATORS

**Table 23: Categories of intervention areas in each priority axis**

Code	Intervention Area
Priority axis 1 – Upgrading the TEN-T Railway Network	
17	Railways (TEN-T)
19	Mobile Railway Means (TEN-T)
Priority axis 2 – Construction and Upgrading of the Motorway and Road TEN-T Network	
21	Motorways (TEN-T)
28	Intelligent Transport Systems
Priority axis 3 – Upgrading Railway Networks outside of the TEN-T Network	
16	Railways
Priority axis 4 – Upgrading Class I Roads outside of TEN-T	
20	Expressways
22	Class I Roads
28	Intelligent Transport Systems
Priority axis 5 – Upgrading and Development of the Prague Underground and Systems for the Management of Road Transport in the City of Prague	
25	Urban Transport
28	Intelligent Transport Systems
Priority axis 6 – Support of Multimodal Freight Transport and Development of Inland Waterway Transport	
26	Multimodal Transport
27	Multimodal Transport (TEN-T)
31	Inland Waterways
32	Inland Waterways (TEN-T)
Priority axis 7 – CF Technical Assistance	
85	Preparation, Implementation, Monitoring, and Control
86	Evaluations and Studies, Information, and Communication

The Objectives and Priority axes of OP Transport, and the areas supported, are shown in the charts below.





### **3.1 Priority axes and Intervention Areas under OP Transport**

The priority axes of OP Transport were set in such a way as to achieve and elaborate on the relevant NSRF priorities, thus contributing to the improved accessibility of the territory by transport connections. Their focus in terms of content is in line with the applicable provisions of the Community Strategic Guidelines and also with the main conclusions of OP Transport ex-ante evaluation.

#### **3.1.1 Priority axis 1 – Upgrading the TEN-T Railway Network**

Support under Priority axis 1 **Upgrading the TEN-T Railway Network** will focus, above all, on those sections of the railway network which constitute a part of the priority projects listed in the European Parliament and Council Decision No. 884/2004/EC. Furthermore, the upgrading and development of other railway lines in the TEN-T network will be supported in this area, as well as of railway junctions and the ensuring of the interoperability of railway infrastructure and vehicles to be used on it.

##### **3.1.1.1 Initial Situation**

The existing network of railway lines in the CR which are part of the TEN-T network is partially in an inadequate condition, in terms of the technical and safety parameters and the quality of the transport infrastructure. The advancing upgrading of those railway corridors which represent the major part of the TEN-T railway network in the CR has improved the parameters of railway lines in the upgraded sections, but most of the upgrading is still to be finished, including that of non-corridor lines which are part of TEN-T.

The upgrading of the Transit Railway Corridors (TRC) I and II was finished on most of the sections. Financial resources from the ISPA pre-accession instrument and consequently from the Cohesion Fund were used for implementation of this modernization.

For upgrading of the TRC I corresponding to (TEN-T PP 22) trans-European corridor IV on the Czech territory), the ISPA/CF resources were used for the co-financing of projects “Optimization of rail section Usti nad Orlici – Ceska Trebova” and “Modernization of rail section Zabori – Prelouc” in total amount of EUR 38.96 mill. Currently, the pilot ETCS project (European Train Control System) in the Czech Republic is being implemented on the section Poricany – Kolin with the approved CF contribution in the amount of EUR 7.35 mil with the expected completion date in 2010.

For upgrading of the TRC II (interconnection between TEN-T PP 22 and 23) connecting the Trans-European Corridors IV and VI, the CF funds were used on the project “Optimization of rail section Zabreh na Morave – Krasikov” in total amount of EUR 72.78 mill. Currently, implementation of the project “Modernization of rail section Cervenka – Zabreh na Morave” is in progress with the approved CF allocation of EUR 100.15 mill – completion of this project is expected in 2008.

The upgrading of another two transit corridors has started (TRC III and IV), but there are no sufficient funds in order to improve the parameters of the other lines included in the TEN-T network to such a level that the Czech railway network would become comparable in quality to networks in EU countries. It is most urgent to fulfil the requirements of the TP CR to ensure high-capacity corridors to neighbouring countries, to connect all regions of national importance to a high-quality railway network, and to ensure the conditions for backbone



agglomeration lines. The greatest weaknesses of the TEN-T railway network in the country include:

- The inadequate technical condition of a part of the national lines in the TEN-T network;
- Inadequate safety equipment (in many cases still depending on the human factor);
- Low track speed with frequent permanent or temporary restrictions;
- Insufficiencies in the interoperability of railway infrastructure;
- Old railway junctions;
- Low share of electrified tracks;
- High share of single track lines;
- Inadequate parameters for combined transport on most lines included in the TEN-T network.

The rate of railway network development is not sufficient to keep up with the rate of road and motorway network development, which is due, among other things, to the fact that the upgrading of the railway network started 30 years later than that of the motorway and expressway network. Unlike the construction of new motorways, the upgrading of corridors often means only remedying neglected maintenance, and often the desired track speeds, in line with the AGC, are not achieved. The sphere of interoperability is proving more and more important, as its insufficiency complicates, above all, international transport. It is necessary to make up for the deficit in the upgrading of certain key railway junctions, even those which are a part of transit corridors. Their upgrading lags behind the upgrading of the track in transit corridors.

### **3.1.1.2 Priority axis 1 Objectives**

The global objective of Priority axis 1 is **Improving Railway Transport in the TEN-T Network**.

The overarching development requirements under this axis are to be based on a service driven strategy towards enabling the development of quality rail services on the major corridors that can eventually compete on a sustained manner with less environmentally friendly transport alternatives, notably with road transportation. This latter goal is to be achieved through the following strategy:

- the enhancement of the technical and operational standards of the infrastructure towards the reduction of travel times and increase of line throughputs, through the increase of commercial speeds and of the fluidity of the traffic and the removal of bottlenecks, better safety, improved riding comfort, higher cost-effectiveness of operation;
- the development of a new culture of customer relationship based on the promotion of better access to the rail services (notably through better management of information and of commercial transactions for travellers and freight customers alike, better physical access by people with impaired mobility or orientation), the availability of value-added services or the branding of specific transport services or organisations.

The overall aim is not to pursue a stepwise approach towards incremental improvements of the network, by locally correcting shortcomings which were due to the deficit of maintenance

of the past years, but rather to implement a "one-off" strategy that can create the conditions for rail to compete with other modes, notably road, and to sustain this competitive position in the long-term.

One of the main aims with this approach will be to tap on the growing markets, notably the international markets that will emerge due to the increased movement of goods and persons in the CR and neighbouring countries. In this context, the assurance of interoperability at technical and operational level will be pivotal as a precondition for the competitiveness of railway transport in this international context.

However, an ambitious development of railway transport on these corridors cannot be pursued in detriment of the environment. The public interest of nature and landscape protection must be respected in the planning and construction with regard to transport. Measures minimising the impact of traffic on the surrounding environment are therefore a necessary part of newly constructed transport infrastructure. In case of the existing infrastructure, these measures must be implemented ex-post, in order to remedy the ecological burdens caused by the existing infrastructure (primarily noise and vibrations).

All of the planned projects must therefore respect this, not only in relation to protected areas, pursuant to the Act on Environmental Protection (national parks, protected landscape areas, (national) natural preserves and monuments), but also in relation to the fact that many localities have been declared part of the NATURA 2000 system. Transport infrastructure with traffic on it constitutes an unnatural division in the landscape, and a barrier to animal and plant migration. The reduction of conflicts with the territorial system of environmental stability (TSES), minimisation of the disturbance of natural ecosystems, enabling animal and plant migration, and respect for the character of landscape, will be taken into account in the design of transport infrastructure routes.

In setting the objectives, the basic environmental requirements for transport, as defined in the State Environmental Policy, were taken into account; some of them are conditional:

- Measures must be promoted to reduce the demand for transport, and support comprehensive approaches to transport infrastructure planning, which will sufficiently reflect environmental, spatial, operational, economic, and social aspects in zoning documentation and transport concepts;
- Support for a gradual change in the share of passenger and freight transport, in favour of railway and combined transport and inland water transport;
- Reduce the fragmentation of landscape by new routes by willingness to use, above all, existing roads or their corridors for upgrading the road network;
- Pay increased attention to the transport of dangerous goods;
- Support suitable technical and infrastructure measures (ring roads, noise barriers) leading to minimising of health risks and adverse environmental impacts (noise, air pollution, occupation of land).

The global objective of Priority axis 1 will be achieved through the following *specific objectives*:

- Expansion and Improvement of the TEN-T Railway Network
- Adaptation of Parameters to the EU Standards.

The following *intervention areas* correspond to the proposed specific objective of Priority axis 1:

- **Upgrading and Development of Railway Lines in the TEN-T Network including Railway Junctions**

The specific objectives of the Priority axis will be achieved through the following interventions:

- Completion of the transit corridors upgrading;
- Continuation in the construction of other segments of the TEN-T network;
- Upgrading of the crucial railway junctions on the TEN-T network;
- Renovation of other railway lines included in the TEN-T network, in order to ensure the technical and operational performance standards which are necessary to provide the required levels of customer service ;
- Implementation of technical measures for the minimisation of the impact of completed structures on various aspects of the environment and on public health.

- **Ensuring Interoperability on Existing Railway Lines, Ensuring Compliance with Technical Specifications for Interoperability (TSI), and the Development of Telematics Systems**

The specific objectives of the Priority axis will be achieved through the following intervention:

- Ensuring interoperability through the implementation of TSI and remote traffic control, including modification of vehicles.

- **Developing the necessary infrastructure and facilities to enhance the operational and commercial performance of the railways.**

Under this heading the following range of specific actions are foreseen:

- Deployment of operational systems for purposes of ensuring the fluidity of traffic, including traffic management and traffic dispatching systems, for asset monitoring and management, or for maintenance planning and management;
- Implementation of systems to support customer relationship management (e.g. customer information systems, ticketing and ticket reservation systems);
- Enhancement of accesses for people with impaired mobility.

### **3.1.1.3 Strategy for Achieving the Objectives**

The objectives of Priority axis 1 will be achieved through continuation in the upgrading of the main TEN-T network railway lines – especially transit corridors – and of other parts of the TEN-T railway networks, especially railway junctions and combined transport transshipment stations. According to the European Parliament and Council Decision No. 884/2004/EC, priority corridors are those which have not been upgraded on the Czech side, i.e., the Czech segments of the Prague- Nuremburg and Prague –Linz routes (TRC III and IV), and partially also the Czech section of the Katowice – Brno route. Through the upgrading of the TEN-T railway network lines, parameters corresponding to the minimum

requirements defined under the AGC and AGTC international agreements will be achieved. Notwithstanding this fact, the specific technical and operational requirements to be eventually adhered to will have to be defined by the service performance that needs to be achieved in order for railways to successfully compete within the passenger and freight market segments which are to be earmarked as their core businesses.

Amongst the technical infrastructure parameters one could mention:

- Critical running speed
- Track capacity class
- Rail loading gauge
- Modern block system
- Modern station equipment, including requirements for increased accessibility for persons with impaired mobility and orientation.
- The length of sidings/branch lines in railway stations.

The intended developments in capital-intensive physical infrastructure assets will have to be complemented by the deployment of information management, operational and logistic systems (e.g. IT systems, passenger information systems, traffic management systems, cargo tracking and tracing systems) which are pivotal to ensure a correct management of traffic operations, raise the level of responsiveness from both operators and infrastructure manager alike, enhance relationship with the customer in the freight and passenger markets, and finally enabling to maximise the use of the available network capacity, conducing to significantly higher levels of return-on-investment of the costly fixed infrastructure assets.

Measures leading to ensuring the interoperability of railway infrastructure and the vehicles operated on it are also integral parts of constructing of trans-European networks. This also applies to the already upgraded sections of transit corridors. The basic prerequisite for the interoperability introduction is to elaborate the technical specifications for the interoperability of individual subsystems. For the conventional railway network, the basic interoperability rules are defined in Directives 2001/16/EC and 2004/50/EC. Currently, TSI proposals are being elaborated and adopted. In terms of European railway system interoperability, the introduction of the ERTMS uniform safety and management system (ETCS, GSM-R) is the crucial. The process will be financially and technically very demanding, and given its importance it is suitable for EU support. According to the Directive 2001/16/EC, the use of ERTMS will be compulsory on lines included in the priority projects in the European Parliament and Council Decision No. 884/2004/EC, if the signalling equipment is newly installed or renovated. This requirement has taken effect six months after the entry into force of a decision on technical specifications for interoperability, i.e., on 28 September 2006.

#### **3.1.1.4 Expected Results and Impact**

##### **Results**

The expected results include, above all, an increase or at least maintaining of the present share of railway transport in the overall performance of passenger and freight transport, achieved through the increased attractiveness of railway transport. Aside from improved accessibility, and thus also the increased attractiveness of regions, the shifting of transport performance from road to railway transport is also an important benefit.

## **Impact**

The expected impact includes, above all, a reduction, or at least no further increase, in the impact of transport on the environment and national health, and also the increased economic performance of the regions, with a decrease in unemployment, due to better accessibility.

The indicators monitored in Priority axis 1 are listed at the end of Chapter 3.

### **3.1.1.5 Beneficiaries**

Beneficiaries will be the owners/administrators of the infrastructure concerned or RIA, in case of introducing interoperability also the owners of rail vehicles and administrators of rail transport.

### **3.1.1.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

### **3.1.1.7 Connection to Other Priority Axes**

Priority axis 1 is focused on development of the TEN-T railway network. Co-ordination within the framework of transport mode will be primarily with Priority axis 3 of OP Transport (lines outside the TEN-T) as the project applicant is the same in these priority axes (RIA). Co-ordination in the framework of important transport routes (railway x road x air x waterway transport) in the CR will be carried out on the basis of the TP CR and the Spatial Development Policy. Co-ordination of transport infrastructure financing – regardless whether it concerns national or the EU sources – results from the whole co-ordination of transport planning in the CR. The transport routes and their interconnection with lower class roads are defined on the level of land-use plans of higher territorial administrative units (subject to approval by the Regions). The Regions participate directly in approval procedure of planning and building permissions for each route and thus influence the implementation of transport constructions – anti-noise barriers, crossing, etc. and further tie together investments on networks under their administration.

There is a direct connection to the following Operational Programmes:

- Regional Operational Programmes (integrated systems of public transport, air transport infrastructure, renewal of rail vehicle fleet).

There are no overlaps. The direct connection between OP Transport Priority axis 1 and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

Upgrading of the TEN-T railway network is only addressed in OP Transport Priority axis 1. The renovation of vehicles included in it concerns interoperability, and complementarity with ROPs will be ensured.

### **3.1.1.8 Major Projects**

An indicative list of projects is enclosed in Appendix No. 1.

### 3.1.2 Priority axis 2 – Construction and Upgrading of the Motorway and Road TEN-T Network

The content of Priority axis 2 is the **Construction and Upgrading of Motorways and Roads in the TEN-T Network**. The content of this Priority axis will thus be the construction of new sections of the motorway and road network, replacing the no longer adequate sections of the TEN-T road network, and improvement of parameters of the already existing segments of motorways and roads in the TEN-T network.

Support under Priority axis 2 will concentrate primarily on those sections of the motorway and road network which are part of the priority projects on which work is to be launched before 2010, and which are listed in the European Parliament and Council Decision No. 884/2004/EC of 29 April 2004. Furthermore, support will be given to upgrading and development of motorways, expressways, and in exceptional cases also Class I roads in the TEN-T network administered by the RMD CR.

#### 3.1.2.1 Initial Situation

In the area of **road transport**, the negative aspects are seen in relation to the increase of IPT and heavy road freight transport, especially on main routes; the neglect and low quality of roads, and problems with their financing. Whereas the primary problem of road passenger transport is the accident rate, the main problem of road freight transport is air pollution; in terms of transport infrastructure, the main problem is the higher usage of roads.

In many cases, roads on TEN-T routes are not of an adequate category (E or M), which causes problems, especially given the increase in transit transport passing through the country. The usage burden on certain roads increased primarily due to the country's EU accession. Also, cross-border connections to the Federal Republic of Germany are complicated, due to the more difficult geographic conditions. Especially in the Krušné and Lužické Mountains, the elevation difference to be crossed over a relatively short distance is significant.

The greatest problems of the TEN-T include:

- Missing segments of motorways and expressways; certain regions do not have a high-quality and effective connection (Zlin, South Bohemian, and Carlsbad Regions); and no motorway interconnection of the cohesion regions North-East – Central Moravia – Moravia-Silesia
- Frequent traffic problems on the two-lane Class I roads included in the TEN-T network, due to safety problems and inadequate capacity
- Inadequate routing of road segments leading through the centres of towns
- Negative impacts of certain existing road connections to border crossings
- Inadequate capacity of parking lots for trucks on motorways and expressways
- Low level of traffic safety compared to the EU-15 (high accident rate)
- Low share of telematics applications for managing and directing traffic in the TEN-T network

#### 3.1.2.2 Priority axis 2 Objectives

The global objective of Priority axis 2 is **Improving Road Transport in the TEN-T Network**.

Under Priority axis 2, investment is expected into the construction and upgrading of motorways, expressways, and other Class I roads included in the TEN-T network, in order to comply with the requirements of the CSG and other EU documents, in the projects specified

by (EC) Decision No. 884/2004/EC. In terms of CR needs, attention will be paid to the construction and completion of further individual segments of the TEN-T trans-European network, and to the renovation of bridges on segments already in use, which are in inadequate technical condition, etc. The aim of support is to ensure such quality roads constituting a part of the TEN-T network on routes used by long-haul and international transport that would be comparable with developed EU countries. The following will be attempted: achieving the parameters required for TEN-T networks in the CR; connecting all regions to a high-quality motorway and expressway network; ensuring a sufficient capacity of road infrastructure in cross-border and other areas; improving the conditions for monitoring the safety and flow of traffic through infrastructure investment; improving traffic information and thereby also the possibility to direct and manage traffic, in order to achieve greater safety and smoothness by using ITS systems, including construction measures.

Support can be used for segments of motorways, expressways, and other roads in the TEN-T network. This sphere of support will also include interventions to mitigate the negative impact of road transport on the environment and public health, with respect to already existing structures which do not comply with the applicable environmental laws and regulations. The subject of a supported subsidy title may even be the construction of noise-preventing measures on existing motorways, expressways, and Class I roads included in the TEN-T network (e.g., noise barriers and mounds, replacement of windows in residential buildings and social facilities, in places where noise limits are exceeded, etc.). Support will also include environmental measures, e.g., building bridges for animal migration, etc.

The public interest in nature and landscape protection must be respected when planning and building transport infrastructure. This applies to all planned projects, not only with regard to large protected areas (national parks, protected landscape areas), but also in relation to the fact that many localities have been declared part of the NATURA 2000 system. Planning and construction of the new TEN-T transport corridors of motorways and Class I roads in the CR will respect territorial protection of individual areas and integrity of the whole NATURA 2000 system.

Insufficient information about the traffic situation, and inadequate preparedness and ability to respond, of both the administrators and the users of transport infrastructure, lead to needless congestions, accidents, increased operation costs, and increased pollution. These problems can partially be resolved with the application of transport telematics. Support under Priority axis 2 would thus be used also for the implementation of ITS, in order to increase traffic safety and flow. ITS technologies enable the monitoring of road conditions, ensuring smooth and safe travel (coordinated traffic management, vehicle batching, changing traffic signs, systems detecting traffic accidents or congestions, recommendation of suitable detours, etc.), providing of information about available parking spots, managing traffic in tunnels, and overseeing and enforcing compliance with traffic rules, etc.

The global objective of Priority axis 2 will be achieved through the following *specific objectives*:

- Improving the Parameters and Development of Motorways and Roads in the TEN-T Network
- Ensuring EU Standards on Road Networks with a Heavy Volume of Traffic, in order to Increase Traffic Safety and Flow

The following *intervention areas* correspond to the proposed specific objectives of Priority axis 2:

- **Upgrading and Development of the Motorway and Road TEN-T Network.**

The specific objectives of the Priority axis will be achieved through the following interventions:

- Continuing in the construction of other segments of the TEN-T network;
- Upgrading and increasing the capacity of already operated sections of M and E road categories, and of other Class I roads in the TEN-T network;
- Implementing technical measures leading to a minimisation of the impact of already completed structures on particular aspects of the environment and public health, and to greater safety;
- Investing into Infrastructure leading to the improved monitoring of traffic safety and flow.

- **Development of Intelligent Transport Systems in Road Transport, and of Systems Improving Road Traffic Safety and Flow.**

The specific objectives of the Priority axis will be achieved through the following intervention:

- Gradual implementation of telematics systems on motorways and the connecting networks.

### **3.1.2.3 Strategy for Achieving the Objectives**

Priority axis 2 objectives will be achieved primarily through the construction of motorway and expressway segments which are a part of the TEN-T network, which means the vast majority of roads of this class in the country, with a few exceptions, such as the expressways R-4 and R-7. Attention will be paid to: construction and completion of various sections of the trans-European TEN-T network, primarily to projects under the European Parliament and Council Decision 884/2004. Two sections of the priority motorway axis Gdańsk – Brno/Bratislava – Vienna concern the CR:

- The Motorway Katowice – Brno/Žilina (construction to be started by 2010)
- The Motorway Brno – Vienna (construction to be started by 2009)

Interventions will cover other sections of motorways, expressways, and other Class I roads in the TEN-T network. Measures under this Priority axis will include interventions to reduce the negative environmental impact of road transport of existing structures which do not meet the conditions of the applicable environmental legislation, and infrastructure interventions to improve the monitoring of traffic safety and flow.

The subject of the supported subsidy title will include technical measures to mitigate the negative impact of the high volume of road transport and to increase its safety (through intensification rather than extensive development). Support should be used in the implementation of ITS in order to increase traffic safety and flow. ITS technologies make it possible, for example, to monitor the road conditions, ensure smooth and safe travel (coordinated traffic management, vehicle batching, changing traffic signs, systems detecting traffic accidents or congestions, recommendation of suitable detours, etc.), provide information about available parking spots, manage traffic in tunnels, and oversee and enforce compliance with traffic rules, etc. The aim of the support is a comprehensive and systemic



solution to improve traffic information, and thereby to direct and manage traffic in order to increase its greater safety and flow, including overseeing by means of ITS systems.

#### **3.1.2.4 Expected Results and Impact**

##### **Results**

The expected results include, above all, a greater accessibility of the country as a whole, and of its individual regions, due to the improved parameters of the TEN-T road network. Other results include increased traffic safety and flow, and better use of the road infrastructure capacity due to the introduction of telematics systems. Another result will be represented by the implementation of a comprehensive ITS systemic solution.

##### **Impact**

The expected impact includes improved conditions for stimulating economic growth and reducing unemployment in regions connected to a modern road infrastructure. A further impact of high-quality infrastructure should be, above all, to reduce the accident rate and negative environmental impacts, especially in areas where the main road leads through the centre of town. Another expected impact of ITS implementation are savings in costs required for the building of new roads and motorways.

The indicators monitored in Priority axis 2 are listed at the end of Chapter 3.

#### **3.1.2.5 Beneficiaries**

The owners/administrators of the infrastructure concerned will be the beneficiaries.

#### **3.1.2.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

#### **3.1.2.7 Connection to Other Priority Axes**

Priority axis 2 is focused on development of the TEN-T road network. Co-ordination within the framework of transport mode will be primarily with Priority axis 4 of OP Transport (roads outside the TEN-T) as the project applicant is the same (RMD CR). Co-ordination in the framework of important transport routes (railway x road x air x waterway transport) in the CR will be carried out on the basis of the TP CR and the Spatial Development Policy. Co-ordination of transport infrastructure financing – regardless whether it concerns national or the EU sources – results from the whole co-ordination of transport planning in the CR. On the level of land-use plans of higher territorial administrative units (subject to approval by the Regions), the transport routes and their interconnection with lower class roads are defined. The Regions participate directly in the approval procedure of planning and building permissions for each route and thus can influence the implementation of transport constructions – anti-noise barriers, crossing, etc. and further tie together the investments to networks under their administration (Class II and III roads) to investments on national level (motorways, expressways and Class I roads).

There is a direct connection to the following Operational Programmes:

- Regional Operational Programmes (regional infrastructure Class II and III roads).

There are no overlaps. The direct connection between Priority axis 2 of OP Transport and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

The construction and upgrading of the motorway and road TEN-T network is only addressed by OP Transport Priority axis 2.

### **3.1.2.8 Major Projects**

Indicative list of projects is enclosed in Appendix No. 1.

## **3.1.3 Priority axis 3 – Upgrading Railway Networks outside of the TEN-T Network**

Support under Priority axis 3 – Upgrading and development of other railway lines will be concentrated on the upgrading and construction of railway lines outside of the TEN-T network. This means supporting cleaner transport which may significantly help to alleviate the burden carried by the road network. Aside from the TEN-T network, the high-quality of railway lines with an international and national importance connecting to TEN-T is also important for railway transport.

### **3.1.3.1 Initial Situation**

Aside from the railway TEN-T network, the network of other national and regional lines is an indispensable part of the railway infrastructure. While in recent years the vast majority of funds were directed into the upgrading of transit corridors, the technical condition of other lines has been gradually falling further behind the contemporary requirements for modern railway transport. Investments have been in most cases limited to simple maintenance. In many cases, however, railway lines outside of the TEN-T network are of key importance for servicing the regions. Often, their potential cannot be fully used due to their outdated equipment and inadequate parameters, which do not allow them to be seen as a suitable alternative to road transport.

The main shortcomings of national and regional lines outside of the TEN-T network include:

- Inadequate safety and signalling equipment (e.g. on certain tracks, which are subject to the D3 regulation, based on which the passage of the train is entirely dependent on the human factor);
- Low track running speed with frequent permanent or temporary restrictions;
- Many individual defective points;
- Insufficiently secured crossings;
- Inadequate conditions for servicing large companies and industrial zones by freight transport, including an inadequate integration of railway transport into logistical processes;
- Missing connections between certain border railway systems with neighbouring countries;
- Inadequate integration into integrated transport systems through modern transfer terminals;
- Insufficient interoperability;
- Unsuitable route of certain tracks, given changes in settlement patterns;
- Inadequate parameters for combined transport on lines included under the AGTC.

### 3.1.3.2 Priority Axis 3 Objectives

The global objective of Priority axis 3 is to **Improve Railway Transport outside of the TEN-T Network**.

Alike Priority Axis 1, the development strategy to be pursued under this Priority Axis is to be well rooted on a forward-looking service perspective, with the aim of enabling railways to become a credible alternative to private means of transportation.

Set against this background, the major keywords under this heading will consist of reliability and frequency of service notably in a sub-urban and commuter context as well as the integration of railways within wider multimodal public mass transport systems. This necessarily requires the development of both infrastructure and system-based facilities concurring to the provision of transport solutions that respond to the expectations of the customers.

This Priority axis plans to support the upgrading and development of railway networks outside the TEN-T network. This concerns line segments outside of the trans-European networks, on which – depending on the specific technical conditions of the segment's infrastructure – critical running speed will be increased, safety and signalling equipment upgraded, compliance with TSI ensured, the premises for passengers will be equipped, in order to enhance the culture of travelling and ensure access for persons with impaired mobility and orientation. The intervention area is to be used for connecting railway lines of national importance. In and around large cities, and in urban agglomerations, track adaptation and upgrading can be proposed, so that fast and regular commuter transport services to the urban centres can be operated. This can include the renovation of infrastructure for using light types of vehicles of the tram-train type, once the railway and tramway networks are interconnected. This intervention area also includes the upgrading of cross-border connections outside of the TEN-T network. Support from the CF can be used, for example, for the electrification of important railway lines. This intervention area will also include interventions to reduce the adverse impacts of railway transport on the environment and public health, in the case of existing structures which do not comply with the conditions of applicable environmental legislation. The subject of the supported subsidy title is also to construct noise-prevention measures on railway lines outside of the TEN-T networks (e.g., noise barriers and mounds, the replacement of windows in residential buildings and social facilities, in places where noise limits are exceeded, etc.).

The global objective of Priority axis 3 will be achieved through the following *specific objective*:

- Creating Conditions for the Increased Competitiveness of Railway Transport

The following *intervention area* corresponds to the proposed specific objective of Priority axis 3:

- **Upgrading and Development of the Railway Network outside of TEN-T**

The specific objectives of the Priority axis will be achieved through the following interventions:

- Upgrading of the important railway lines and junctions, including the construction of relocations;
- Renovation of other railway lines, and ensuring interoperability and construction of relying;

- Renovation and development of cross-border segments (in the CR);
- Gradual electrification of other railway lines;
- Bringing other national and selected regional lines into an optimal condition;
- Investments to national network which will enable its linking to rail systems of regional and mass urban transport, or their combination;
- Implementing technical measures leading to minimisation of the impact of completed structures on various aspects of the environment and on public health

### **3.1.3.3 Strategy for Achieving the Objectives**

The objectives of the priority axis will be achieved through investment into railway lines outside of the TEN-T networks. Support will be directed into construction adaptations leading to higher track speed and other parameters, such as track class or clearance. Another important area is the safety and signalling equipment, which in many cases needs to be replaced with newer systems, for the sake of greater transport safety, lower transport infrastructure operating costs, and the improved flow of traffic. In terms of safety, it is also important to continue in increasing the safety measures on crossings, and in justified cases to replace them with flyovers. This Priority axis may also include the construction of entirely new line segments, where duly justified future sectorial analysis of the existing transport potential and the inability to achieve the required parameters on the existing infrastructure. Support may also be used for the electrification of selected railway lines, even in connection to the introduction of systems connecting railway and tramway networks (tram-train). The support will also include interventions to reduce the negative environmental impact of railway transport, in case of existing structures which do not comply with the conditions of the applicable environmental legislation. Therefore the subject of the supported subsidy title is also the construction of noise-prevention measures on railway lines outside of the TEN-T networks (e.g., noise barriers and mounds, the replacement of windows in residential buildings and social facilities, in places where noise limits are exceeded, etc.). The construction of modern railway infrastructure should also include measures leading to ensuring interoperability. This applies even to sections outside of the TEN-T networks.

### **3.1.3.4 Expected Results and Impact**

#### **Results**

The expected results of Priority axis 3 include, above all, the increased competitiveness of rail transport in transport streams outside of the main trans-European TEN-T network, and thereby an increase in or at least the retention of the share of railway transport in passenger and freight transport performance, and the improved accessibility of the concerned regions.

#### **Impact**

The reduction of transport impact on the environment and safety is expected, both due to the better competitiveness of railway transport and water transport, and to the creation of conditions for shifting some carriage performance from road to railway transport, or at least for slowing down the further increase in road transport.

The indicators monitored in Priority axis 3 are listed at the end of Chapter 3.

#### **3.1.3.5 Beneficiaries**

Beneficiaries will be the owners/administrators of the infrastructure concerned, or RIA.

#### **3.1.3.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

#### **3.1.3.7 Connection to Other Priority Axes**

Priority axis 3 is focused on the development of railway network outside the TEN-T network. Co-ordination within the framework of transport mode will be primarily with Priority axis 1 of OP Transport (railways on the TEN-T) as the project applicant is the same in these priority axes (RIA). Co-ordination in the framework of important transport routes (railway x road x air x waterway transport) in the CR will be carried out on the basis of the TP CR and the Spatial Development Policy. Co-ordination of transport infrastructure financing – regardless whether it concerns national or the EU sources – results from the whole co-ordination of transport planning in the CR. On the level of land-use plans of higher territorial administrative units (subject to approval by the Regions), the transport routes and their interconnection with lower class roads are defined. The Regions participate directly in approval procedure of planning and building permissions for each route and thus influence the implementation of transport constructions – anti-noise barriers, crossing, etc.

There is a direct connection to the following Operational Programmes:

- Regional Operational Programmes (integrated systems of public transport, air transport infrastructure, renewal of rail vehicle fleet).

There are no overlaps. The direct connection between Priority axis 3 of OP Transport and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

The upgrade of the railway network outside of the TEN-T networks is addressed only in Priority axis 3 of OP Transport.

#### **3.1.3.8 Major Projects**

Indicative list of projects is enclosed in Appendix No. 1.

### **3.1.4 Priority Axis 4 – Upgrading of Class I Roads outside of TEN-T**

Support under Priority axis 4 will focus on the construction and upgrading of expressways outside of the TEN-T networks and other Class I roads.

#### **3.1.4.1 Initial Situation**

In **road transport**, the negative aspects are related to the increase of environmental burdens, the uncontrolled growth of individual transport and heavy freight road transport, the neglect and low quality of roads, and problems with their financing.

The high share of Class I roads passing through many towns or villages, and the heavy traffic, represent a nuisance for local inhabitants. Many Class I roads are not wide enough and do not have climbing lanes for slower vehicles, in a very diverse landscape.

Some of the border-area infrastructure, not included in the TEN-T network, no longer meets the required standards. With the country's EU accession, requirements as to the capacity of the border sections of transport infrastructure have grown, rendering it inadequate in many places. For this reason the Priority axis also focuses on increasing the capacity and quality of Class I roads in border areas with difficult geo-morphological conditions. The insufficient road infrastructure capacity and the resulting congestions have a negative impact on the surrounding environment, especially in border areas. This impact is further stressed by the adverse terrain conditions in the areas, leading to increased air pollution on the roads and their surroundings.

The Priority axis is focused on improving the quality of those Class I roads that are not part of the TEN-T networks, namely their rebuilding into expressways or the remedying of their defects, thereby bringing them in line with the norms. This is required for improving inter-regional road connections. Class I roads are administered by the RMD CR.

The primary objective is to achieve safety on Class I roads, which are considered essential for the implementation of the Priority axis.

Potential interventions in this Priority axis include the construction of ring roads around towns on Class I roads outside of TEN-T, or the removal of defective points, in order to increase traffic safety, and the upgrading of other Class I roads in order to achieve the standard quality level. The implementation of these projects should help to reduce the adverse impact of heavy road traffic on the inhabitants concerned. Also, the improved flow of traffic should help to reduce its impact on the environment and public health, and reduce energy consumption.

#### 3.1.4.2 Priority Axis 4 Objectives

The global objective of Priority axis 4 is to **Improve Transport on Class I Roads outside of TEN-T**.

Aside from the TEN-T road network, an important part of the transport system is represented by the rest of the road network, necessary for ensuring good-quality inter-regional road connections. There are still many problems remaining on Class I roads, and new ones are arising with increased traffic. Aside from improving the parameters of the existing sections, attention must be paid to building ring roads around towns and villages in places where it is justified.

The public interest of nature and landscape protection must be respected in the planning and construction of transport infrastructure. All of the planned projects must respect this, not only in relation to large protected areas (national parks, protected landscape areas), but also in relation to the fact that many localities have been declared part of the NATURA 2000 system.

The global objective of Priority axis 4 will be achieved through the following *specific objective*:

- Improving the Parameters of Expressways and Other Class I Roads outside of TEN-T, in order to Increase Traffic Safety and Flow.

The following *intervention area* corresponds to the proposed specific objective:

- **Reconstruction and Upgrading of Class I Roads outside of TEN-T**

The specific objective of the Priority axis will be achieved through the following interventions:

- Ensuring a quality Class I roads network;
- Upgrading and remedying of the defects on Class I roads;
- Building Class I roads functioning as ring roads and calming traffic in residential built-up areas through diversion of transport from densely populated areas or investment into traffic flow improvement (road relocations, elimination of bottlenecks) on Class I roads;
- Gradual implementation of telematics systems on Class I roads;
- Ensuring the sufficient capacity of road infrastructure in border and other sensitive areas;
- Implementing technical measures to minimise the impact of completed structures on individual aspects of the environment and public health, and to increase safety;
- Small-scale investment projects to support traffic safety (e.g., investment into methodological training centres which should ensure a uniform level of further training of the drivers of certain vehicles, thus helping the CR comply with Directive 2003/59/ES, and contribute to meeting the objectives of the National Strategy of Road Traffic Safety and the EU Action Plan on Road Safety).

### **3.1.4.3 Strategy for Achieving the Objectives**

Priority axis 4 objectives should be reached by investment into expressways and other Class I roads not included in the TEN-T networks. These provide a connection to the TEN-T transport networks, with the purpose of reducing isolation through improved transport accessibility. Support for the construction of ring roads around towns and cities is expected, as well as for remedying the inadequate technical conditions, etc. Given the nature of transport, an efficient solution can also be seen in the upgrading of Class I roads passing through important urbanised areas into higher-capacity four-lane roads, provided that a significant increase in traffic intensity can be expected, as well as increased capacity problems, especially during rush-hour. Attention must be paid to removing the so-called accident areas, i.e., places where accidents occur frequently. Ensuring a better solution of transit transport through towns and villages will also be subject to support.

This intervention area will also include interventions to mitigate the negative impact of road transport on the environment, with respect to already existing structures which do not comply with the applicable environmental legislation. The subject of the supported subsidy title is to construct noise-preventing measures on existing Class I roads (e.g., noise barriers and mounds, the replacement of windows in residential buildings and social facilities, in places where noise limits are exceeded, etc.). Support will also include environmental measures, e.g., building bridges for animal migration, etc.

### **3.1.4.4 Expected Results and Impact**

#### **Results**

The expected results of Priority axis 4 include, above all, the creation of conditions for a safer and better flowing transport on expressways and other Class I roads outside of the TEN-T network, which will ensure the good transport accessibility of the regions.

### **Impact**

The expected impact includes economic growth and reduced unemployment rates in the regions concerned, as well as increased safety and the reduced environmental impact of road transport, due to improved road infrastructure parameters.

The indicators monitored in Priority axis 4 are listed at the end of Chapter 3.

#### **3.1.4.5 Beneficiaries**

Beneficiaries will be the owners/administrators of the infrastructure concerned.

#### **3.1.4.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

#### **3.1.4.7 Connection to Other Priority Axes**

Priority axis 4 is focused on development of road network outside the TEN-T network. Co-ordination within the framework of transport mode will be primarily with Priority axis 2 of OP Transport (roads on the TEN-T) as the project applicant is the same in these priority axes (RMD CR). Co-ordination in the framework of important transport routes (railway x road x air x waterway transport) in the CR will be carried out on the basis of the TP CR and the Spatial Development Policy. Co-ordination of transport infrastructure financing – regardless whether it concerns national or the EU sources – results from the whole co-ordination of transport planning in the CR. On the level of land-use plans of higher territorial administrative units (subject to approval by the Regions) the transport routes and their interconnection with lower class roads are defined. The Regions participate directly in approval procedure of planning and building permissions for each route and thus influence implementation of transport constructions – anti-noise barriers, crossing, etc. and further tie together investments on networks under their administration (Class II and III roads) to investments on national level (motorways, expressways and Class I roads).

There is a direct connection to the following Operational Programmes:

- Regional Operational Programmes (regional infrastructure Class II and III roads).

There are no overlaps. The direct connection between Priority axis 4 of OP Transport and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

Upgrading of Class I roads outside of the TEN-T network is only addressed by OP Transport Priority axis 4. Complementarity with the ROPs will be ensured, as they address Class II and III roads.

#### **3.1.4.8 Major Projects**

An indicative list of projects is enclosed in Appendix No. 1.



### **3.1.5 Priority Axis 5 – Upgrading and Development of the Prague Underground and Systems for the Management of Road Transport in the City of Prague**

Priority axis 5 will focus on supporting the construction of the underground, in order to increase the interest in mass urban transport, and to mitigate the adverse influences of large volumes of road transport by introducing telematics systems in the City of Prague.

#### **3.1.5.1 Initial Situation**

A necessary prerequisite for the functioning of large agglomerations is the need to take care of their transport. In many cases, however, the extent of traffic is such that it causes significant problems, especially in the centres of large cities, and especially in Prague. This phenomenon is exacerbated by the increasing share of IPT in transport performance, and by the continuing lack of adequate infrastructure, such as, above all, ring roads. Aside from completing the road infrastructure, it is necessary to create an attractive alternative to IPT, through mass urban transport systems. Another measure that assists in managing the increasing volumes of road transport on existing infrastructure is the implementation of telematics systems that allow for its more efficient use.

The above-mentioned problems are most urgent, especially in the City of Prague, where supra-regional functions and activities are concentrated, as well as services for a large number of people commuting from nearby and also from more distant regions. The sharp increase in IPT in Prague and surroundings since the early 1990s significantly exceeds the national and European averages. The existing street network is, however, absolutely inadequate to cope with these demands. One of the key prerequisites for creating a sustainable transport system in the city is to have a permanent offer of a highly attractive and competitive mass transport. In spite of the problems described above, Prague manages to keep a favourable ratio of the persons transported by mass transport and IPT: approximately 3:2. Maintaining the attractiveness of mass urban transport systems is only possible if they are continuously improved and expanded. Mass urban transport in Prague carries more than 3 million people every day, of which more than 2/3 travel by rail-based transport. The most effective system is the Prague Underground; but the operation and construction of new lines is rather expensive, and presently exceeds the financial possibilities of the City of Prague.

An integral part of the development of a sustainable transport system in the City of Prague is to optimise the traffic in the existing street network, applying the principle of preference for mass transport, and making use of the new possibilities offered by telematics systems (central traffic management, batching of vehicles, changing traffic signs, systems detecting traffic accidents or congestions, recommendation of suitable detours, provision of information about available parking lots, management of traffic in tunnels, and control and enforcement of compliance with traffic rules, etc.)

#### **3.1.5.2 Priority Axis 5 Objectives**

The global objective of Priority axis 5 is to **Improve Mass Urban Transport by Building the Underground and Systems for the Management of Road Transport in the City of Prague.**

Support will be focused, above all, on increasing the competitiveness of mass urban transport, with the aim of retaining a favourable ratio between individual and mass urban transport, thereby mitigating the negative environmental impact of transport in the City of Prague. The construction of a system for managing and regulating urban road traffic is expected in order to

optimise the throughput of junctions on the city's main road network, as well as the construction of new segments of the underground. The main priorities of mass urban transport will include the construction of the underground as the most effective and progressive means of transport with a high capacity, which is fast, regular, and safe.

When setting the objectives, the basic environmental requirements for transport were taken into account, as defined in the State Environmental Policy.

The global objective of Priority axis 5 will be achieved through the following *specific objectives*:

- Improving the Conditions of Mass Urban Transport in Prague
- Managing Large Volumes of Road Transport

The following *intervention areas* correspond to the proposed specific objectives:

- **Development of the Underground Network in Prague**
- **Introduction of Road Traffic Management and Regulation Systems in Prague.**

### **3.1.5.3 Strategy for Achieving the Objectives**

The objectives under this Priority axis will be achieved through investment in the city's infrastructure, which in Prague means primarily building new underground lines as the most effective and progressive means of transport.

New underground lines will continue to increase the coverage of all significant existing and new transport relations. By expanding and improving the underground in the City, exploiting opportunities from open end development to construct nodal interchanges with other sub-urban transport means, and by equipping existing stations with access for persons with impaired mobility or orientation, the preservation of the high share of mass transport in the overall transport work will be ensured, at least at the present ratio: UMT – 60%, IPT 40%.

The road traffic management objective is to optimise traffic in the existing street network, applying the principles of the preference of mass transport, using new modern management and information technologies, including a connection to a comprehensive national telematics system.

### **3.1.5.4 Expected Results and Impact**

#### **Results**

The expected results include the increased attractiveness of mass urban transport in the City of Prague, retention or increase of its share in passenger transport volumes, and improved flow of road traffic, and thus improved accessibility in Prague. Another result will be represented by the implementation of modern telematics systems in road traffic management, which will allow for an optimal use of the existing street network in the City.

#### **Impact**

The expected retention or increase of the share of mass transport in passenger transport performance will reduce the environmental impact of IPT and increase traffic safety in the City of Prague. A similar impact is expected to be achieved by the implementation of telematics systems.

The indicators monitored in Priority axis 5 are listed at the end of Chapter 3.

### **3.1.5.5 Beneficiaries**

Beneficiaries will be the owners/administrators of the infrastructure concerned, or the Municipal Council of the City of Prague.

### **3.1.5.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

### **3.1.5.7 Connection to Other Priority Axes**

The sole beneficiary of funds under Priority axis 5 is the capital city of Prague. Simultaneously, it is also the Managing Authority of OP Prague – Competitiveness. Co-ordination between projects financed from OP Transport and OP Prague – Competitiveness is ensured by the relation of beneficiary x managing authority within the City of Prague.

There is a direct connection to the following Operational Programmes:

- Prague - Competitiveness (Priority axis 1 – Accessibility and Environment).

There are no overlaps. The direct connection between Priority axis 5 of OP Transport and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

The upgrading and development of the Prague underground and the systems for the management of road transport in the City of Prague are only addressed by OP Transport Priority axis 5. Complementarity will be ensured with OP Prague – Competitiveness, which does not include the development of the underground.

### **3.1.5.8 Major Projects**

An indicative list of projects is enclosed in Appendix No. 1.

## **3.1.6 Priority Axis 6 - Support of Multimodal Freight Transport and Development of Inland Waterway Transport**

Priority axis 6 will focus on two areas. Firstly, it concerns supporting multimodal transport systems including, but not limited to, combined transport transshipment stations and PLC infrastructure and also the development and upgrading of inland waterways. In the area of water transport, the focus will be on finishing the construction of inland waterways by enabling navigation on the so far non-navigable stretches and improving parameters of the waterways already in use, mostly on the TEN-T network.

### **3.1.6.1 Initial Situation**

The issues to be covered by Priority axis 6 are related to the mitigation of adverse environmental impacts. Support under Priority axis 6 will focus on addressing the problems of freight transport by supporting multimodal freight transport and inland water transport

A greater use of multimodal freight transport on the transport market, with the ever-increasing demand for freight transport, should lead, above all, to an improvement in the environment. The existence of a network of public logistic centres with quality connection to at least two types of transport is crucial for involvement of cleaner modes of transport, i.e., railway and inland water into the present logistical chains through multimodal or combined transport. In this respect, the absence of railway transport connection in new logistic centres is one of the

crucial factors having a negative effect on the integration of railway transport into logistical chains.

The network of transshipment stations providing adequate services at reasonable prices, competitive vis-à-vis road transport, plays an equally important role for increase of multimodal transport. The increase of the current low share of combined transport in transport performance (only 1.68% of the total transport performance in the country was carried by combined transport in 2004) is hindered by the inadequate technical, operational, and technological equipment of the existing transshipment stations, and their uneven distribution throughout the country, and by the inadequate parameters of a part of the railway network. Combined transport is successfully developing in the CR solely in the segment of sea containers transport on long-haul routes to large sea ports. On these routes, it is a viable alternative to road transport. In order for it to be competitive in other market segments, it must be connected with the network of PLCs, and its technology must be improved in such a way as to significantly decrease the critical carriage distance at which combined transport is economically advantageous, in comparison with road transport.

The main problems of multimodal transport include:

- Insufficient technical equipment and parameters of most existing transshipment stations;
- The existing transshipment stations are not evenly distributed throughout the country;
- Inadequate connection of multimodal terminals to the road and railway network.

In order to take advantage of the potential of railway and inland water transport in serving the PLC network, it is necessary to have the CT transshipment stations included in the PLCs.

The second intervention area from the Priority axis 6 is Inland water transport. The Accession Treaty of the CR to the EU included the Elbe waterway from Pardubice to the state border with Germany and Vltava waterway from Trebenice to its confluence with Elbe to the TEN-T network. The European Agreement on Main Inland Waterways of International Importance (AGN) obliges the CR to develop waterways with appropriate parameters. The Elbe – Vltava waterway is part of the former Multimodal corridor IV. This only waterway suitable for international transport lately suffers from fluctuation of permissible parameters on the regulated water flow in length of 40 km between Usti nad Labem and Hrensko. Without implementation of infrastructure, there will be no improvement on this stretch of Elbe – Vltava waterway. In such a case, the inland water transport in the CR will not be allowed to increase its relatively low share on traffic performance. In the CR there are also a number of waterways of regional importance with great potential for increasing the economic performance of tourism. Similarly, the waterways are insufficiently linked to industrial centres and zones and water transport is little utilized in multimodal transport.

The intentions for water transport infrastructure development are in line with the Commission Communication on Supporting Inland Waterway Transport “NAIADES”, of 17 January 2006 - COM(2006) 6, which comprises the Integrated European Action Programme for Inland Waterway Transport. The programme considers owning of the adequate infrastructure to be one of the five inter-related strategic areas for a comprehensive inland water transport policy

### 3.1.6.2 Priority 6 Objectives

The global objective of Priority 6 is to **Increase the Multimodality of Freight Transport and Improve Inland Waterway Transport.**

Support will focus primarily on the multimodality of the entire transport system. The involvement of railway and inland water transport in freight transport chains can be achieved through the support of the construction of multimodal terminals and improving the parameters of the existing ones, and through support for the establishment of PLCs connected to several modes of transport, including related studies.

The second subject of the Priority axis 6 support is to develop inland waterways according to the applicable TP CR concerning the completion of the construction of inland waterways, especially on the Elbe – Vltava waterway included in TEN-T network. Support under this measure will be given to the construction and upgrading of waterways of regional importance with a clear link to increasing economic performance in tourism, and ports, e.g. plans for ensuring navigation of Vltava in the Trebenice – Ceske Budejovice stretch, upgrading and construction of ports on inland waterways, including the implementation of telematics systems. Support for water protection interventions, especially in ports, will also be part of the measure. The aim is to extend attraction areas of waterways including the elimination of service discontinuation on separate stretches of waterways, to create an effective port and service infrastructure, to create conditions for wider utilization of waterways and to generally widen the attraction area of the waterway.

The global objective of Priority axis 6 will be achieved through the following *specific objectives*:

- Making Multimodal Transport More Attractive, in order to Reduce the Adverse Impact of Transport on the Environment and Public Health by Reducing the Share of Road Freight Transport,
- Improving Inland Waterway Transport.

The following *intervention areas* correspond to the proposed specific objectives:

- **Support for Multimodal Freight Transport, Purchase of CT Transport Vehicles and CT Transport Units, Upgrading CT Transshipment Stations**

The specific objectives of the Priority axis will be achieved through the following interventions:

- Support for investments in multimodal transport;
- Building new and upgrading the existing CT infrastructure;
- Support for new multimodal transshipment technologies;
- Support for the establishment of PLCs from public funds;
- Support for studies on support of multimodality in freight transport;
- Support for logistics from public funds, with a positive impact on the greater involvement of railway and inland water transport in transport chains.

- **Development and Upgrading of Inland Waterways on and outside the TEN-T Network**

The specific objectives of the Priority will be achieved through the following intervention:

- Improving of infrastructure quality and other functional parameters of water transport by solving problems with navigation and safety of the water transport on the inland waterways significant for transport.

- **Support for Upgrading of the Inland Waterway Vessels.**

As an intersection of the above mentioned intervention areas, the investment for Upgrading of the Inland Waterway Vessels will also be provided.

Support for Upgrading of the Inland Waterway Vessels will lead to lowering the negative impacts of water transport on the environment and/or to support multimodality in freight transport and/or to improve traffic safety, which will in the end result in the elimination of potential environmental damages.

### **3.1.6.3 Strategy for Achieving the Objectives**

Support of CT and freight transport multimodality and the creation of conditions for the integration of individual modes of transport, i.e., a closer connection of railway, water, and combined transport to logistical processes represent the means for achieving Priority axis 6 objectives. Furthermore, projects for the construction of CT transshipment stations, and the purchase of their equipment, can be included, especially as related to the servicing of the PLC network. Support for telematics will also be included, which is important especially in CT. According to the European legislature, CT transshipment stations are part of the basic railway infrastructure accessible to all transporters. As the CR is missing a network of such transshipment stations, it is necessary to create conditions for their establishment.

This intervention area also expects to provide financial assistance for the purchase of CT transport units, as part of the support for CT development, thereby achieving a greater balance in the use of various transport modes in the transport of goods.

In water transport, this concerns the implementation of plans for improving the parameters of waterways according to the present TP CR and with its reference to completion of waterways construction especially on the Elbe – Vltava waterway on the TEN-T network.

Also the upgrading of vessels will be possible, leading to a reduced environmental impact of water transport and support for multimodality. Plans to support the vessels upgrading are in line with the Commission Communication on Supporting Inland Waterway Transport “NAIADES”, of 17 January 2006 - COM(2006) 6, which comprises the Integrated European Action Programme for Inland Waterway Transport. The programme considers the improvement of the effectiveness of logistics and of the environmental and safety performance of the inland waterway fleet to be one of the five related strategic areas for a comprehensive inland water transport policy.

### **3.1.6.4 Expected Results and Impact**

#### **Results**

The expected results include a greater integration of railway and waterway transport in freight transport chains, by building an infrastructure of combined transport transshipment stations and PLCs, and supporting combined transport technologies. In inland waterway transport, the share in transport volumes is expected to increase, especially in freight transport.

#### **Impact**

With the expected shift of a part of the freight transport volume from the road to railway and waterway transport, the environmental impact of road transport will be reduced. Upgrading of vessels will have the same impact.

The indicators monitored in Priority axis 6 are listed at the end of Chapter 3.

### **3.1.6.5 Beneficiaries**

Beneficiaries will be the owners/administrators of infrastructure for multimodal transport, legal/natural persons with property or other rights to the estates to be used for the construction (supported by the investment), or the owners of transshipment mechanisms, CT transport units, PLC owners/administrators, owners of transport vehicles, operators/owners of river fleet, owners/administrators of concerned infrastructure of inland water transport and the WD CR.

### **3.1.6.6 Form of Support**

The support will be in the form of non-repayable direct assistance.

### **3.1.6.7 Connection to Other Priority Axes**

Priority axis 6 is focused on development of inland waterway transport network. Co-ordination within the framework of transport mode will be ensured by concentration of investment from both national sources and the EU sources through common applicant (the WD CR). Co-ordination in the framework of important transport routes (railway x road x air x waterway transport) in the CR will be carried out on the basis of the TP CR and the Spatial Development Policy. Regarding co-ordination of transport infrastructure financing – regardless whether it concerns national or the EU sources – results from the whole co-ordination of transport planning in the CR. On the level of land-use plans of higher territorial administrative units (subject to approval by the Regions), the transport routes and their interconnections with lower class roads are defined. The Regions participate directly in approval procedure of planning and building permissions for each route and thus influence implementation of transport constructions.

There is a direct connection to the following Operational Programmes:

- Regional Operational Programmes (tourism);
- The Environment.

There are no overlaps. The direct connection between Priority axis 6 of OP Transport and the above-mentioned Operational Programmes can be seen only in the benefit of implementing the interventions for the given Operational Programme.

### **3.1.6.8 Major Projects**

An indicative list of projects is enclosed in Appendix No. 1.

## **3.1.7 Priority Axis 7 – OP Transport Technical Assistance**

Priority axis 7 – “OP Transport Technical Assistance” will focus on supporting and ensuring the implementation of OP Transport.

### **Initial Situation**

Pursuant to Article 46 of the general regulation, the support for work related to preparation, administration, monitoring, assessment, and information and control for each Operational Programme is eligible for financing under Priority axis Technical assistance. Financing of activities including implementation, monitoring, publicity, and other activities related to the need to reinforce the administrative capacity and make it more effective for the implementation of assistance, and to increase absorption capacity, is expected.

A necessary prerequisite for the successful and effective use of EU support is, above all, to ensure quality project preparation and efficient project implementation by the Beneficiaries and implementation bodies. Other very important aspects include the development of sectoral strategies; informing the public about the Operational Programme and the share of EU funds in its implementation, and ensuring assessment activities as part of the Operational Programme.

The need for preparation and elaboration of analyses, working papers and preparation of programme documents for the period 2014 – 2020 is also foreseen.

The global objective of Priority axis 7 is ensuring efficient use of OP Transport Funds to achieve the Objectives of OP Transport.

Support will focus primarily on:

- Ensuring high-quality management, implementation, and monitoring of OP Transport, including an electronic monitoring system;
- Support for absorption capacity of the Beneficiaries, with the objective of ensuring good quality project preparation and implementation;
- Support for management, control, payment and monitoring processes;
- Ensuring publicity for OP Transport, fulfilment of OP Transport communication plan;
- Ensuring the evaluation of OP Transport;
- Enhancing the administrative capacity of the Managing Authority and beneficiaries (with the aim of improving the programme absorption capacity and making the implementation system more efficient);
- Covering costs connected to completing the implementation of the programming period 2004 – 2006 and for preparing the programming period 2014 – 2020;
- Preparation under the aegis of the Ministry of Transport of conceptual and strategic documents to be completed by July 2008.

## **Experimentation**

An indicative amount proposed after the completion of conceptual and strategic documents by Joint Steering Committee (see chapter 2.2.1) and approved by the MC shall be allocated to the experimentation of new actions (projects and approaches) under this priority. The objective is to test projects and approaches and identify those which are successful which can be implemented on a more extensive basis in later years of the Operational Programme. The outputs and results of these projects will not contribute to the quantified indicators of the Operational Programme.

Experimentation is a working method. It starts e.g. with the generation of new ideas in the framework of the above mentioned Joint Steering Committee. These new ideas could be



tested through small pilot projects with a short duration. The results of these pilot actions will be analysed and, once the results are known, the successful actions will be developed further in the context of the priorities of the OP

The progress of experimentation and the proposed actions as well as the results of those actions will be discussed at the Monitoring Committee meetings and will be included in the Annual Implementation Reports.

Activities implemented under Priority axis 7 will be complementary to each other, as well as to activities supported from OP Technical Assistance on the level of the NSRF, as this co-ordinating and methodological document is setting out a uniform framework for the management and implementation of assistance provided from the Structural Funds and Cohesion Fund in the CR, in all of the objectives of the above-mentioned policy.

### **3.1.7.1 Beneficiaries**

Support beneficiaries will be the entities directly involved in the implementation of OP Transport and subject whose activities support implementation and fulfilment of OP Transport objectives, including beneficiaries from thematic priority axes of OP Transport.

### **3.1.7.2 Connection to Other Priority Axes**

Priority axis 7 is cross-sectional and concern all OP Transport priority axes and intervention areas.

### **3.1.7.3 Major Projects**

No major projects are expected to be implemented under this priority axis.

## **3.2 Monitoring and Assessment Indicators**

### **3.2.1 System of Indicators**

The selection and setting of the system of indicators must correspond to the needs of monitoring and assessment. The indicators must allow for the measuring of improvements, both under the NSRF and under OP Transport. The purpose is to measure how the set objectives are being achieved using indicators, in line with the Commission methodology.

For the period 2007–2013, the Commission recommended this basic indicator structure:

Purpose	Level	Indicator type
Socio-economic analysis		Context
Operational programme strategy	Programme	Impact (or result), core
	Priority axes	Result (or impact), output, core
	All levels	Financial indicators
	As required	Horizontal themes

Contextual indicators have been set for programme levels, characterising the main influences forming the environment in which the programme activities are carried out.

Three levels of indicators will be monitored on the priority axes level:

- **Output indicators** expressing the scope of the activities undertaken, which constitute a part of the ongoing monitoring process,
- **Result indicators** characterising the direct effect of a programme on its users,
- **Impact indicators** describing the mid- or long-term effects of a programme on the socio-economic situation on which the programme's global and specific objectives focus.

Other indicators include financial indicators which serve to monitor individual operations.

For the 2007 – 2013 programming period, the Commission's methodological guidelines identify, as a compulsory part of the indicator system of each OP, the **core indicators** for the programme level and for the priority axes level. Core indicators express the Community priority axes and are common to all Member States. They must be monitored by annual monitoring reports and aggregated up to the NSRF level.

The specification of the activities related to the implementation of the proposed priority axes, and the need of a link between the indicator system and the framework of interventions identified by the EU as relevant for the 2007–2013 programming period were decisive for the selection of indicators for the monitoring of the course of the implementation of a programme, and for the assessment of its overall performance and success.

The selection of indicators was based on the roles these indicators must play in the assessment of the effectiveness and success of an Operational Programme. Therefore, aside from the relevance of the indicators for the programme objectives, the selection of indicators also takes into account how these are able to describe the level of principle factors determining the competitiveness of the Czech economy, and evaluate the position of the CR in fulfilling the sustainable development strategy within the EU.

The integration of both directions of assessment is required not only for the quantification of the effect of the interventions carried out during the programming period, but also for monitoring the level of the Czech economy competitiveness converging with the developed countries.

The proposed monitoring and evaluation indicators reflect, to the maximum degree possible, the possibilities offered by the existing official information sources of the Czech Statistical Office, the industry statistics of the Ministry of Transport or the Ministry of the Environment, and Eurostat.

Monitoring of continuous fulfilment of indicator values will be carried out through the Monitoring System (for more details about Monitoring system please see chapter 4.10.2). Data into the Monitoring System will be entered from both the level of beneficiaries (output or result indicator values) and the level of the Managing Authority (impact and result indicator values).

In the initial set up of the indicator system, the base values are entered only for the indicators where it was possible to obtain relevant data at that moment. Initial values refer to year 2005, if it is not stated otherwise. For the rest of the indicators (such as Value of time-saving in railway/road transport in EUR), the initial values will be completed in the first annual report on OP Transport implementation. For the indicators where it is impossible to obtain their values because of their character, the initial values will be zero (e.g. number of projects).

The methodology of indicator system creation of OP Transport is based particularly on the document “Principles of creation of indicators for monitoring and evaluation in 2007 to 2013” which was prepared by the NCA. When the system of indicators was prepared the recommendations and requirements of “Working document (WD) No. 2 – Indicative guidelines on evaluation methods: Monitoring and evaluation indicators” were taken into account. WD 2 was prepared by the DG REGIO evaluation unit. Indicator system of OP Transport is fully compatible with national list of indicators managed by the NCA. This ensures compatibility and quantifiability of all the selected indicators on the national level. All relevant “core” indicators defined in WD 2 for the transport sector are included in system of indicators of OP Transport.

Quantification of the indicators is based primarily on the data gathered from resort statistics of the MoT and also from statistics of the MoE and the CSO. Quantification of indicators also relies on experience gathered during the previous programming period. Quantification of output indicators in the framework of specific priority axis have been calculated taking into account presumed division of financial allocations for individual priority axis (intervention area) and also taking into account the empirically gathered individual unit cost according to the type of infrastructure.

The following general formula was used to calculate the output indicators target values:

$$Y = K * \frac{\left( X + \frac{X}{85} * 15 \right)}{Z}$$

Y – target value of the indicator

X – allocation of the appropriate priority axis (intervention area)

Z – unit costs according to MoT statistics taking into account future estimates

K – expected ratio of total costs (eligible + non eligible cost + net revenue) to eligible costs – expected value 1.43

The target values of the result and impact indicators are based on the objectives of MoT and Czech Republic strategic documents. They were determined on the base of calculations taking into account the target values of the output indicators and the planned improved characteristics of the infrastructure.

A detailed explanation of the definition and calculation of all the OPT indicators together with a thorough justification of the target values will be written down in a form of special methodological document – Vademecum for OP Transport indicators. This document will be part of the working manual of the MA. Relevant parts will be made public for the beneficiaries.

Vademecum will be approved and managed by MA and presented to the MC in the beginning of 2008. EC and NCA will be provided with the copy of the Vademecum. Vademecum will be presented also at working group for monitoring of OPs established by NCA.

Vademecum will consist of following sections:

- a) List of all OP Transport indicators
- b) Subjects responsible for management of indicators

- c) Sheet for each indicator (consisting of name, number, definitions and descriptions, reference and target values, method for calculation, relation to monitoring system etc.)
- d) Importance of each indicator for triggering ad hoc and on going evaluation (low, medium, high)
- e) Person responsible for maintaining the Vademecum, its approval date etc.

## **Environmental monitoring**

Environmental monitoring within the OP Transport will be carried out in accordance with the requirements of Art. 10 of SEA Directive on the level of projects and of the programme itself. On project level the environmental criteria recommended by SEA evaluator of both the OP Transport and the NSRF were incorporated into the project application form<sup>7</sup>. On the programme level there will be two sets of environmental indicators monitored. First set will comprise of the indicators that will be aggregated from the indicator values of concrete co financed projects, second set will comprise of the environmental indicators which will be used to monitor and evaluate the overall impact of OP Transport as well as TP CR.

Programme level set of environmental indicators:

- Emissions of greenhouse gases generated by transport split into fossil resources and biomass;
- Sulphur dioxide emissions generated by transport;
- Nitrogen oxides emissions generated by transport;
- Share of motor vehicles equipped with catalyzer (%);
- Share of population exposed to excessive noise levels generated by transport (%);
- Share of population exposed to excessive levels of tropospheric ozone (%);
- Share of population exposed to excessive levels of suspended particles of PM10 fraction (%).

Progress with fulfilment of the environmental indicators / criteria will be included in the Annual Implementation Report presented to the MC.

## **3.2.2 Indicator System Setting**

### **3.2.2.1 Context Indicators of OP Transport**

Context indicators have been set for the programme level. These include quantified information of a socio-economic nature, and express measurable information about the environment in which the interventions are carried out.

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<sup>7</sup> For complete list of environmental indicators / selection criteria please see [www.opd.cz](http://www.opd.cz) project application section.

**Table 24: Context Indicators**

Code (national list/ "core")	Name	System of monitoring	Initial data (2004)	Source
	Overall decrease of the accident rate in the Czech Republic (roads)	Total number of accidents on Czech roads	26.516	Czech Police/ MoT
	Number of regions (NUTS III) not connected to a quality TEN-T road transport network	The absence of a connection of NUTS III to the TEN-T road network through quality infrastructure is monitored	5	Region
	Number of regions (NUTS III) not connected to a quality TEN-T railway transport network	The absence of a connection of NUTS III to the TEN-T railway network through quality infrastructure is monitored	6	Region
07 23 00/ Lisbon	General unemployment rate	CR unemployment rate, as at the end of the time-period monitored	8.3%	CSO, Eurostat

### 3.2.2.2 Programme Indicators and Priority Axes Indicators

The indicators of output, result, and impact will be used as programme and priority axes indicators. The main criterion for their quantification is to express the “level of improvement”, as compared to the initial level. The following aspects can thus be assessed:

- Absolute increment
- Growth rate
- Change of indicator, in %
- Achievement of the set objective from the initial level, in absolute figures
- Achievement of the set objective from the initial level, in %

**Table 25: Programme Indicators (result and impact indicators are monitored)**

Code (national list/ "core")	Name	System of measurement	Initial value (2004)	Target value (2015)	Source
<b>Result Indicators</b>					
37 17 11	Increase of share of railway and waterway transport in freight transport	Share of transport performances of railway and inland waterway in %	25.2 %	27 %	MoT
<b>Impact indicators</b>					
37 31 10	Change in the number of traffic accidents on segments concerned by the intervention (%)	Number of traffic accidents on the road / railway segment concerned in a given period (year)	100%	60%	Czech Police/ MoT
37 25 00/ Lisbon	Volume of freight transport compared to GNP	Volume of freight transport to GDP (tkm/ GDP, mil tkm / bn CZK)	23.075	22.077	MoT
37 27 00/	Transport demandingness in	Share of road freight	74.8%	75.8%	MoT

Lisbon	freight transport	transport in overall performance (tkm) in %	(2004)		
37 28 00/ Lisbon	Transport demandingness in passenger transport	Share of road passenger transport (IPT) in overall performance (pass.-km) in %	81.9% (2004)	81%	MoT
21 17 00	Exposure of inhabitants to over limit concentrations of PM <sub>10</sub>	% of inhabitants	66%	50%	MoE
21 02 00 Core 30	Reduction greenhouse emissions (CO2 and equivalents, kt)	Yearly volume of CO <sub>2</sub> in tons per inhabitant in kt.	0.013923 (2004)	0.013505	MoE / CSO

Indicators for priority axes assessment were identified for individual priority axes, and correspond to the National Indicator Code List for the 2007 – 2013 programming period; output indicators have been added.

**Table 26: Priority axis 1 Indicators – Upgrading the TEN-T Railway Network (output, result, and impact indicators are monitored)**

Code (national list / core)	Name	System of measurement	Initial value	Target value (2015)	Source
<b>Output Indicators</b>					
37 07 01/ core 19	Length of reconstructed TEN-T railway lines **	Length of reconstructed railway lines TEN-T network, in km	40 <sup>+</sup>	348	MoT – Monitoring System
37 07 02	- of TEN-T lines identified in the Decision No. 884/2004/ES	Length of reconstructed railway lines in the TEN-T network pursuant to decision No. 884/2004/ES, in km	40 <sup>+</sup>	234.3	MoT – Monitoring System
37 09 10	Number of renovated railway junctions	Number of newly renovated railway junctions on the TEN-T network	0 <sup>++</sup>	8	MoT – Monitoring System
37 01 00/ core 13	Number of projects supporting transport and transport infrastructure	Number of supported projects	3 <sup>+</sup>	20	MoT – Monitoring System
<b>Result Indicators</b>					
37 11 00/ core 21	Value of time-savings in railway transport in EUR	Benefit from new and upgraded railway lines for passengers and freight transport expressed as reduction of driving times of trains on concerned sections (mil EUR/year)	0	33,1	MoT – Monitoring System
37 01 02	Accessibility – increase of ESS	ESS (Equivalent straight-line speed)	0	8,7	MoT

		is expressed as fraction of direct distance between points and the shortest driving time between these points. Point equals to the nearest residence from the beginning/end of concerned section (increase in %)			
<b>Impact Indicators</b>					
37 32 15	Increase in transport performance in passenger transport	Increase in transport performance in pass.-km in the concerned sections (%)	100%	120%	MoT
37 32 16	Increase in transport performance in freight transport	Increase in transport performance in tkm in the concerned sections (%)	100%	110%	MoT
21 02 10	Reduction of greenhouse emissions (CO <sub>2</sub> ) from transport	Reduction of greenhouse gases according to CO <sub>2</sub> equivalent in certain period of time (in tons)	<i>Subject of evaluation study*</i>	<i>Subject of evaluation study*</i>	MoE, CSO

\* The value will be determined by an evaluation study on the base of the projects submitted in the first call for proposals during the year 2008;

\*\* Refers to modernised, optimised, electrified and renovated lines.

+ The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

++ No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 27: Priority axis 2 Indicators – Construction and Upgrading of the Motorway and Road TEN-T Network (output, result, and impact indicators are monitored)**

Code (national list / core)	Name	System of measurement	Initial value	Target value (2015)	Source
<b>Output Indicators</b>					
37 02 00/ core 14	Length of new roads in total	Length of newly built roads (motorways, expressways and Class I roads) in total, including TEN-T roads in km	18,5 <sup>+</sup>	120	MoT – Monitoring System
37 03 00/ core 15	Length of new motorways, expressways and Class I roads - TEN-T	Length of newly built motorways, expressways and Class I roads in the TEN-T network, in km	18,5 <sup>+</sup>	120	MoT – Monitoring System
37 03 01	- of those TEN-T roads identified in the Decision No. 884/2004/ES	Length of newly built motorways and expressways in the	14,2 <sup>+</sup>	50	MoT – Monitoring System

		TEN-T network pursuant to the Decision No. 884/2004/ES, in km			
37 12 00	Length of roads equipped with telematics systems	Length of roads equipped with telematics systems, in km	0 <sup>++</sup>	800	MoT – Monitoring System
37 01 00/ core 13	Number of projects supporting transport and transport infrastructure	Number of supported projects	4 <sup>+</sup>	20	MoT – Monitoring System
<b>Result Indicators</b>					
37 11 01/ core 20	Value of time-savings in road transport in EUR	Benefit from upgraded roads for passengers and freight transport expressed as value of reduction of driving times of cars in concerned sections (mil EUR/year)	0	41,8	MoT – Monitoring System
37 11 02	Accessibility – increase of ESS	ESS (Equivalent straight-line speed) is expressed as fraction of direct distance between points and the shortest driving time between these points. Point equals to the nearest residence from the beginning/end of concerned section (increase in %)	0	5,3	Ministry of Transport
<b>Impact Indicators</b>					
37 31 11	Reduced accident rate on the sections concerned	Number of accidents on the sections concerned after the intervention (%)	100%	50%	Ministry of Transport
21 02 10	Reduction of greenhouse emissions (CO <sub>2</sub> ) from transport	Reduction of greenhouse gases according to CO <sub>2</sub> equivalent in certain period of time (in tons)	<i>Subject of evaluation study*</i>	<i>Subject of evaluation study*</i>	Ministry of Environment, CSO

\* The value will be determined by an evaluation study on the base of the projects submitted in the first call for proposals during the year 2008;

<sup>+</sup> The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

<sup>++</sup> No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 28: Priority Axis 3 Indicators – Upgrading Railway Networks outside of TEN-T network (output, results, and impact indicators are monitored)**

Code (national list / core)	Name	System of measurement	Initial value	Target value (2015)	Source
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Output Indicators					
37 07 03/ core 19	Length of reconstructed railway lines – outside of TEN-T**	Length of reconstructed railway lines outside of TEN-T, in km	26,4 <sup>+</sup>	105.2	MoT – Monitoring System
37 09 00	Length of electrified railway lines	Length of electrified railway lines in km	9 <sup>+</sup>	53.5	MoT – Monitoring System
37 01 00/ core 13	Number of projects supporting transport and transport infrastructure	Number of supported projects	9 <sup>+</sup>	20	MoT – Monitoring System
Result Indicators					
37 11 00/ core 21	Value of time-savings in railway transport in EUR	Benefit from upgraded railway lines for passenger and freight transport expressed as reduction of driving times of trains on referred sections (mil EUR/year)	0	4,9	MoT – Monitoring System
37 01 02	Accessibility – increase of ESS	ESS (Equivalent straight-line speed) is expressed as fraction of direct distance between points and the shortest driving time between these points. Point equals to the nearest residence from the beginning/end of concerned section (increase in %)	0	8,7	MoT
Impact Indicators					
37 32 15	Increase in transport performance in passenger transport	Increase in transport performance in pass.-km in the concerned sections (%)	100%	110%	MoT
37 32 16	Increase in transport performance in freight transport	Increase in transport performance in tkm in the concerned sections (%)	100%	110%	MoT
21 02 10	Reduction of greenhouse emissions (CO <sub>2</sub> ) from transport	Reduction of greenhouse gases according to CO <sub>2</sub> equivalent in certain period of time (in tons)	<i>Subject of evaluation study*</i>	<i>Subject of evaluation study*</i>	MoE, CSO

\* The value will be determined by an evaluation study on the base of the projects submitted in the first call for proposals during the year 2008;

\*\* Refers to modernised, optimised, electrified and renovated lines.

<sup>+</sup> The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

<sup>++</sup> No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 29: Priority Axis 4 Indicators – Upgrading Class I Roads outside of TEN-T (output, result, and impact indicators are monitored)**

Code (national list / core)	Name	System of measurement	Initial value	Target value (2015)	Source
<b>Output Indicators</b>					
37 02 00/ core 14	Length of new roads in total	Length of newly built roads (motorways, expressways and Class I roads), in km	19,7 <sup>+</sup>	48,3	MoT – Monitoring System
37 05 02/ core 16	Length of reconstructed roads outside of TEN-T	Length of reconstructed Class I roads outside of TEN-T, in km	1,3 <sup>+</sup>	85,2	MoT – Monitoring System
37 12 00	Length of roads equipped with telematics systems	Length of roads equipped with telematics systems, in km	0 <sup>++</sup>	100	MoT – Monitoring System
37 01 00/ core 13	Number of projects supporting transport and transport infrastructure	Number of supported projects	9 <sup>+</sup>	20	MoT – Monitoring System
<b>Result Indicators</b>					
37 11 01/ core 20	Value of time-savings in road transport in EUR	Benefit from upgraded roads for passengers and freight transport expressed as value of reduction of driving times of cars in concerned sections (mil EUR/year)	0	15,3	MoT – Monitoring System
37 11 02	Accessibility – increase of ESS	ESS (Equivalent straight-line speed) is expressed as fraction of direct distance between points and the shortest driving time between these points. Point equals to the nearest residence from the beginning/end of concerned section (increase in %)	0	5,3	MoT
<b>Impact Indicators</b>					
37 31 11	Reduced accident rate on the sections concerned	Number of accidents on concerned sections after implementation of the intervention (%)	100%	90%	MoT
21 02 10	Reduction of greenhouse emissions (CO <sub>2</sub> ) from transport	Reduction of greenhouse gases according to CO <sub>2</sub> equivalent in certain period of time (in tons)	<i>Subject of evaluation study*</i>	<i>Subject of evaluation study*</i>	MoE, CSO

\* The value will be determined by an evaluation study on the base of the projects submitted in the first call for proposals during the year 2008;

<sup>+</sup>The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

<sup>++</sup> No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 30: Priority Axis 5 Indicators – Upgrading and Development of the Prague Underground and Systems for the Management of Road Transport in the City of Prague (output, result, and impact indicators are monitored)**

Code (national list/ "core")	Name	System of measurement	Initial value	Target value (2015)	Source
<b>Output Indicators</b>					
37 12 02	Roads equipped with telematics systems	Number of newly installed telematics systems in the territory of Prague	0 <sup>++</sup>	45	MoT – Monitoring System / Prague City Hall
37 10 00	Length of newly built underground lines	Length of new underground infrastructure, in km	0 <sup>++</sup>	4,5	MoT – Monitoring System / Prague City Hall
37 01 00/ core 13	Number of projects supporting transport and transport infrastructure	Number of supported projects	0 <sup>++</sup>	2	MoT – Monitoring System / Prague City Hall
<b>Result Indicators</b>					
37 31 11	Reduced accident rate on concerned sections	Number of accidents on concerned sections after implementation of the intervention (change in %)*	100%	90%	Prague City Hall
37 32 22/ core 22	Additional population served with improved urban transport	Number of people which can be served by newly built UMT line	0 <sup>++</sup>	81 350	Prague City Hall
<b>Impact indicators</b>					
21 02 11	Reduction of greenhouse emissions (CO <sub>2</sub> ) from transport	Quantity of CO <sub>2</sub> emissions from transport in CO <sub>2</sub> tons per Prague inhabitant	2.133	2.132	Prague City Hall

<sup>+</sup>The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

<sup>++</sup> No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 31: Priority Axis 6 Indicators – Support of Multimodal Transport and Development of Inland Waterway Transport (output and result indicators are monitored)**

Code (national list/ "core")	Name	System of measurement	Initial value (2005)	Target value (2015)	Source
<b>Output Indicators</b>					
37 17 02	Number of newly built or reconstructed delivery tracks	Number of new / reconstructed delivery tracks	0 <sup>++</sup>	25	MoT – Monitoring System

37 17 0	Number of newly purchased or upgraded vehicles	Number of new or upgraded CT vehicles and upgraded vessels	0 <sup>++</sup>	150	MoT – Monitoring System
37 15 00	Length of regulated waterways	Length of prolonged navigability or length of regulated waterways in km	0 <sup>++</sup>	24	MoT – Monitoring System
37 01 00 core 13	Number of projects supporting transport and transport infrastructure u	Number of supported projects	14 <sup>+</sup>	50	MoT – Monitoring System
<b>Result Indicators</b>					
37 17 10	Increase of transported volume by combined transport	Volume of shipments in combined transport in tons	4 313 thou. t (2004)	<i>Subject of evaluation study*</i>	MoT
37 17 12	Increase of transported volume in inland waterway transport	Volume of shipments in inland waterway transport in tons	2 032 thou. t (2006)	2 800 thou. t	MoT

\* The value will be determined by an evaluation study on the base of the projects submitted in the first call for proposals during the year 2008;

<sup>+</sup> The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

<sup>++</sup> No projects fulfilling value of this indicator were implemented by MoT in the period 2004-2006

**Table 32: Priority Axis 7 Indicators – OP Transport Technical Assistance (output and result indicators are monitored)**

Code (national list/ "core")	Name	System of measurement	Initial value (2007)	Target value (2015)	Source
<b>Output Indicators</b>					
48 01 00	Number of supported projects of technical assistance	Number of supported projects of technical assistance	27 <sup>+</sup>	40	MoT
<b>Result indicators</b>					
48 02 00	Total expenditure on implementation of technical assistance projects	Total realized expenditure on information and consultation services, on monitoring, evaluation and analytic tasks and other TA activities (in mill. CZK)	46+	2230	MoT

<sup>+</sup> The indicator value refers to SF and CF projects in the period 2004-2006, this value is not included in the target value

## 4 OP TRANSPORT IMPLEMENTATION

Pursuant to the General Regulation, Regulations on the CF and ERDF, Implementation Regulation, NSRF, and in line with those documents, this chapter defines the implementation system of OP Transport. In this chapter, the systems of management, monitoring, and assessment on the programme level will be described.

The management and implementation system of OP Transport has been set up so that all management and implementation functions are executed with maximum efficiency, while adhering to the principle of subsidiarity. Conformity with the processes used for national public funds in the CR was taken into account in setting up the management and control system.

OP Transport management and control system will ensure that the roles of entities involved in implementation are specified, and functions divided within each entity, while adhering to the principle of the separation of functions among such entities, and within each entity. Processes will be established to ensure that the expenditures reported in the Operational Programme are correct and proper, as well as systems and processes to ensure appropriate background documents for audits.

### 4.1 *Implementation Provisions*

Overall responsibility for programme implementation is entrusted to the Operational Programme Managing Authority. The Managing Authority delegates certain activities to other entities, or accepts the results of their work to an extent customary and comparable to the distribution of activities in the management of investments financed from national public funds. The overall responsibility of the Managing Authority for the execution of those activities is not prejudiced by delegating activities.

In setting up the management and control structure, a distinction will be made between interventions directed entirely to assets owned by the CR and administered by the appointed organisations and other interventions, where a number of beneficiaries may apply for support (including the above-mentioned organisations). In all cases, transparency in dealing with support beneficiaries will be ensured.

For the purposes of evaluation and monitoring, a Monitoring Committee was established for OP Transport, which will also act as a liaison with social partners and EU institutions.

In terms of the methodology and overall monitoring and assessment of assistance from Structural Funds and the Cohesion Fund, OP Transport Managing Authority will cooperate with the National Co-ordination Authority (NCA).

The Payment and Certification Authority shall be responsible for auditing expense reports and applications for payments of OP Transport before they are sent to the Commission.

The Audit Authority shall be responsible for auditing OP Transport implementation.

## 4.2 Programme Managing Authority

The decision of the Minister of Transport, based on the Government decree No. 175 of 22 February 2006, authorizes the EU Funds department of the Ministry of Transport to perform the function of the Managing Authority.

### Name of Managing Authority and Contact Information

<b>OP Transport Managing Authority</b>	<b>Ministry of Transport of the Czech Republic –EU Funds Department</b>
Address	Nábřeží L. Svobody 12
	110 15 Prague 1
	Czech Republic

#### Role of the Managing Authority:

- Fulfil the obligations arising for an entity appointed as the Operation Programme Managing Authority from the general regulation, including:
  - a) Responsibility for the drafting and discussion of the OP and its submission to the European Commission; ensuring the conformity of OP objectives and priority axes with other Operational Programmes, the NSRF, and the CSG, ensuring the elaboration of an ex-ante expert assessment and an environmental impact assessment for the programme;
  - b) Ensure that all operations for financing are selected in line with the relevant Operational Programme criteria and that they are, throughout the term of their implementation, in line with the applicable Community and national laws and regulations;
  - c) Verify whether co-financed products and services are supplied, whether the expenses of operations reported by beneficiaries have actually been made, and that they are in line with Community and national laws and regulations; on-site checks of individual operations may be performed on the basis of a selected sample, in line with the rules adopted by the Commission, using the process under Art. 103 (3) of the general regulation;
  - d) Ensure the existence of a system for recording and retaining accounting records in an electronic form for each operation in the OP, and the collection of data about necessary financial processes, monitoring, verification, audit, and evaluation;
  - e) Ensure that beneficiaries and other entities involved in the implementation of the operations have either a separate accounting system or an adequate accounting code for all operation-related transactions, without national accounting regulations being prejudiced;

- f) Ensure that OP assessment under Art. 48 (3) of the general regulation is performed in line with Art. 47 of the general regulation;
- g) Set processes to ensure that all documents concerning expenses and audits required for ensuring an adequate basis for audit focused on financial flows are stored in line with the requirements of Art. 90 of the general regulation;
- h) Ensure that the Payment and Certification Authority obtains all information required for certification purposes about processes and verifications performed in connection with expenses;
- i) Manage the work of the Monitoring Committee and provide it with documents allowing it to monitor the quality of the OP execution vis-à-vis its specific objectives;
- j) Produce annual and final reports on implementation and present them to the Commission, once approved by the Monitoring Committee;
- k) Ensure compliance with the information and publicity requirements under Art. 69 of the general regulation;
- l) Provide information to the Commission enabling it to assess major projects.

***And furthermore, it is responsible for:***

- Ensuring co-financing from national public resources in the CR on the programme level;
- Ensuring the establishment of a functional and effective structure for providing support from EU and CR funds;
- Taking decisions on granting assistance / Decision on project financing;
- Evidence and monitoring of irregularities and their examination;
- Submitting of estimates concerning applications for payment in the present and following budgetary year to the Payment and Certification Authority (Article 76 (3) of general regulation);
- Submitting of aggregate applications,  
and other activities stemming from Community legislation.

Some of the above-mentioned activities may be delegated to other entities or may be ensured by taking over outputs of other entities; nevertheless, the Managing Authority is fully responsible for their implementation and correctness.

MoT ensures that its organisation structure separates managing functions of the department which represents the MA from departments which are responsible for management of institutional beneficiaries (RIA, WD CR and RMD CR).

MoT within its organizational structure strictly separates management, payment and control functions. The payment activities will be carried out by the financial department of the MoT, independent from the EU Funds department. Control functions within the meaning of Art. 62 (1) (a) and (b) of the Council Regulation (EC) No. 1083/2006 were delegated to the department responsible for audit and supervision which is completely independent from other sections and is governed directly by the Minister of transport.

### 4.3 Intermediate Body for Implementation

The Intermediate Body for implementation of selected priority axes or its parts will be the State Fund of Transport Infrastructure (SFTI) with some competencies delegated to it by the MoT.

The Intermediate Body of OP Transport will carry out the following basic tasks for selected priority axes or its parts:

- a) Fulfil the role of the programme body taking care of OP Transport funds reimbursement;
- b) Conclude contracts on project financing with the Beneficiaries;
- c) Reimburse national public co-financing of projects;
- d) Pre-finance OP Transport funds to the Beneficiaries.

Detailed extent of delegated activities to the Intermediate Body will be defined in an Agreement on delegation of certain competencies of the Managing Authority concluded between the Ministry of Transport and the State Fund of Transport Infrastructure, and also in the Manual of operating procedures.

### 4.4 Programme Payment and Certification Authority

The Payment and Certification Authority (hereinafter “PCA”) is appointed by the Czech Government. The National Fund department of the Ministry of Finance was charged to perform the role of PCA for Structural Funds and the Cohesion Fund by the decision of the Minister of Finance, pursuant to Government Resolution No. 198 of 22 February 2006. PCA does not delegate any activity to the Intermediate Body (Bodies).

<b>OP Transport Payment and Certification Authority</b>	<b>Ministry of Finance of the Czech Republic – National Fund Department</b>
Address	Letenská 15
	118 10, Prague 1
	Czech Republic

#### The Role of the Payment and Certification Authority is to:

- a. Perform the obligations defined in the general regulation – especially Article 61;
- b. Represent the entity responsible for accepting payments from the Commission under Article 37 of the general regulation;
- c. Administer funds provided from the SF and CF in accounts in the CNB;
- d. Elaborate and submit applications for ongoing and final payments to the European Commission, for all programmes, on the basis of expense reports submitted by the Managing Authorities;
- e. Receive payments from the European Commission;
- f. Transfer SF and CF resources into the appropriate budget chapters on the basis of an inspection of Summary Claims submitted by the Managing Authorities;



- g. Perform the book-keeping activities for PCA funds in the Ministry of Finance accounting unit;
  - h. Maintain a system of financial reporting for PCA funds;
  - i. Certify expenses made, and issue certification of these to be sent with an ongoing or final payment claim to the European Commission; and copies are sent to Audit Authority;
  - j. For certification purposes, control the proper functioning of the management and control system on all implementation levels;
  - k. Perform on-site inspections;
  - l. Draft and update methodological instructions for certification of SF and CF expenditures, and for cash flow and controls of SF and CF funds;
  - m. Refund unjustifiable paid expenditures, including interest, to the European Commission, unless a decision was made in line with EC rules to re-allocate them in the programme in which the unjustified drawing down occurred;
  - n. Refund unused funds to the European Commission;
  - o. On the basis of estimates by Managing Authorities, submit updated estimates as to payment claims (expected expenditures) to the European Commission for the current and upcoming year, by 30 April;
  - p. Proceed in line with rules for managing control;
  - q. Respond to the comments and recommendations of the European Commission;
  - r. Provide for the concept and methodology of IS VIOLA SF/CF for the performance of the PCA function, including data communication with the SF monitoring system;
  - s. Evaluate the drawing of SF and CF allocations, monitor compliance with the n+2 (n+3) rule,
- and other activities stemming from Community legislation.

#### 4.5 Programme Audit Authority

The Audit Authority is set up within the meaning of Article 59 of the general regulation. The Czech Government Resolution No. 198 of 22 February 2006 authorised the Ministry of Finance to perform the role of the Audit Authority. The Minister of Finance decided to entrust the role to the Central Harmonisation Unit for Financial Control Department, which is functionally independent of the Managing Authority and the PCO.

<b>OP Transport Audit Authority</b>	<b>Ministry of Finance of the Czech Republic – Central Harmonisation Unit for Financial Control Department</b>
Address	Letenská 15
	118 10, Prague 1
	Czech Republic

The Audit Authority will perform the activities defined in Art. 62 of General Regulation, above all, the following activities:

- a) Ensure auditing of the programme management and control system preparedness;
- b) Present to the EC, prior to the submission of an application for the first payment, and no later than within 12 months of the approval of the programme, a report evaluating the setting of the Operational Programme management and control systems, and its opinion on their compliance with the applicable provisions of EC regulations;
- c) Submit to the Commission, within 9 months of the approval of the OP, an audit strategy, specifying the entities which will be performing it;
- d) Ensure that an audit is carried out in public administration in order to verify the effective functioning of the programme management and control system in line with Art. 62 (a) of General Regulation;
- e) Annually submit an updated audit strategy to the Commission, submit the method of sample selection for operations audits and for audit planning ensuring that audits of the main subjects are performed and distributed evenly throughout the entire programming period;
- f) Annually submit to the Commission a consolidated audit plan of funds provided from EU funds;
- g) Check on a quarterly basis the compliance with the consolidated audit plan, and inform the PCO about this compliance;
- h) Ensure auditing in public administration on an appropriate sample of operations, in order to check the expenditures reported to the European Commission in line with Art. 62 (b) of General Regulation;
- i) Provide methodological guidance for the Certified Audit Bodies involved in Public Administration audits in the Operational Programme;
- j) Oversee the quality of public administration audits performed by the Certified Audit Bodies, with respect to the projects co-financed from the SF and CF;
- k) Participate in drafting and updating methodological guidelines for auditing the public administration of funds from the Operational Programme;
- l) Submit annually in the period 2008-2015 to the Commission an annual control report containing the findings of audits performed during the previous year, in line with the Operational Programme audit strategy, and any deficiencies found in the management and control systems of the programme. Information concerning audits performed after June 1, 2015 will be included in the final control report which constitutes the basis of the declaration of closure;

- m) Annually issue a statement for the Commission as to whether the functioning of the management and control system affords a reasonable guarantee that the expense reports submitted to the Commission are correct, and that the related transactions are legal and proper;
- n) Present a statement of partial closure in which it assesses the legality and propriety of the expenditures concerned, pursuant to Article 88 of the general regulation;
- o) Submit to the Commission, by 31 March 2017, a statement of closure, in which it evaluates the validity of the application for final payment and the legality and propriety of the related transactions included in the final expense report;
- p) Ensure that audit activities are performed in line with internationally recognised audit standards;
- q) Analyse the irregularities reported, in order to produce a statement of closure or partial closure;
- r) Annually elaborate a report on the outcome of financial controls of the Operational Programme for the Czech Government.
- s) Ensure that the Payment and Certification Authority obtains, for the certification purposes, the results of all audits performed by the Audit Authority or with its authorization;
- t) Take part in audit missions of the European Commission examining the aspects of managing and control system which emerged from the annual control report;
- u) Co-operate with the European Commission in coordination of audits plan and audit methods and exchange the results of executed audits,

and other activities stemming from Community legislation.

The Audit Authority ensures all the above mentioned activities, but, provided that the responsibility stays with it, it can delegate selected activities to other audit subjects - the Certified Audit Bodies (CAB). Based on the agreement governed by public law only one level of delegation to execution of the above mentioned activities is permitted (i.e. the authorized subject cannot authorize another subject). The Audit Authority entrusted the audit body (MoT) with the task to perform the activities of the Audit Authority based on Government Resolution No. 760/2007.

When performing the audit, CAB proceeds in line with Art. 62 (1)(a,b) of the General Regulation and carries out mainly the following activities:

- a) Audit aimed at confirming an efficient functioning of the OP management and control system;
- b) Audit of operations based on a suitable sample to check the expenditure declared, concentrating mainly on:
  - Whether the operation complies with the OP selection criteria, is implemented in line with the decision of approval and respects all conditions related to its

functionality and usage or objectives to be achieved; this means to verify for example:

- ba) Whether the declared expenditure has been really spent;
- bb) Whether the declared expenditure corresponds to the project budget items listed in the legal document providing for the obligation to grant financial resources (including the changes approved during implementation);
- bc) Whether the co-financed products and services have really been delivered;
- Eligibility of expenditure and correctness of the data from the accounting perspective;
- Compliance of performed operations with national and EC rules (e.g. public procurement, state aid etc.);
- Whether the contribution has been paid out to the beneficiary in line with Art. 80 of the General Regulation.

The Financial Control and Audit Department of the MoT is in charge of this activity. This Department is independent on other departments and is subordinated directly to the Minister of Transport.

## **4.6 National Co-ordination Authority**

The Government Resolution No. 198/2006 of February 22, 2006 entrusted MfRD with the task to represent the National Co-ordination Authority (NCA). NCA was set up at the MfRD to perform these functions. NCA competencies comply with the Act No. 248/2000 Coll. on support of regional development, as amended. The NCA is responsible for overall co-ordination of the NSRF and is the official partner of the EC with regard issues of NSRF. The NCA sets up a unified framework of implementation environment for the Managing Authorities in the area of management, implementation, monitoring, evaluation, control, data collection and their electronic exchange. The NCA ensures co-ordination functions in line with the tasks of the Managing Authority defined in the General Regulation and in the Implementation Regulation.

### **4.6.1 Co-ordination Committee Attractive Environment**

In order to ensure due coordination mechanisms for the management and implementation of the Operational Programmes OP Transport (managed by the MoT) and OP Environment (managed by the ME) the Co-ordination Committee Attractive Environment shall be established in compliance with the NSRF of the CR (Chapter 11 of the NSRF “Management and Coordination of the Cohesion and Social Policy”). The Co-ordination Committee Attractive Environment shall be subordinated to the Monitoring Committee of the NSRF (i.e. to the Steering and Co-ordination Committee). This Co-ordination Committee shall above all strengthen the mutual exchange of information between the two Operational Programmes and shall promote the synergies in the impact of both Operational Programmes.

### **4.6.2 Links in investments to transport from OP Transport, the Regional Operational Programmes, National Resources and Regional Resources**

Beyond above mentioned coordination for each Priority axis and Co-ordination Committee Attractive Environment, the MoT will prepare and submit to the Government a material including a complex planning of the CR’s expenditure to transport infrastructure from sources

of the national budget, SFTI budget, EIB credits and EU funds for the period 2007 – 2013 (hereinafter “Schedule”). The aim of the Schedule is to draft an indicative list of principal investment and non-investment needs in transport infrastructure and to model needs for resources in upcoming years. Taking into account the long-term character of this financial plan, the Schedule will be continually updated. Implementation of projects, especially of mid- and long-term plan, will be conditioned by their investment preparedness which can be influenced by objective factors. Targeting of financial resources, especially of external financial resources such as the EU funds or the EIB credits, can also be influenced by approval procedures. Implementation dates and financial resources for projects will therefore have to be amended over the years according to the up-to-date degree of preparedness.

The regions can adjust their own investment planning (from the national source and ROP) according to this Schedule so that the maximum synergy effects are reached.

#### **4.7 Ensuring Sufficient Administrative Capacity on the Level of Managing Authority, Intermediate Body and Major Beneficiaries of Support from OP Transport (RIA, RMD CR and WD CR)**

The necessity of valid administrative structures to guarantee efficient use of the Structural Funds resources has been acknowledged and stipulated in the text of the National Strategic Reference Framework of the Czech Republic.

Sufficient administrative capacity is necessary in order to ensure not only the absorption capacity and application of formal procedures but also to spend financial resources in line with sound financial management principles.

According to the NSRF, the basis of this approach to guarantee sufficient administrative capacity is the following:

- Analysis of the MA's needs for operational programmes implementation
- Definition of functions and procedures
- Formulation of employees' profiles, jobs description
- Quality of the selection and recruitment of new employees.

Further, in line with the NSRF: *"the quality output of all functions within the implementation system of EU resources is closely related to the profile and stabilization of employees, who participate on preparation and functioning of this system. Employees of public administration have to be systematically prepared several years for correct and quality execution of these activities, including learning of languages. Quality of the selection and recruitment of new employees that takes into account the best practice is an essential condition for quality human resources management. This system will be used at all implementation levels. The main objective of the improvement of the human resources management is to minimize the undesirable outflow of these well-educated and skilled employees into the private sector. This can be achieved primarily through the setting of such conditions that create the work in public administration competitive to the private sector"*.

These NSRF provisions are more specified in the letter sent by Czech authorities in view of approval of the NSRF decision to the European Commission on 29 June 2007 (reference number 24 449/2007-62) in the following way:

- *"Attention will be paid to systemic strengthening of the absorption capacity, including also the analysis of needs, definition of requirements, description of work posts, independent recruitment procedures, motivation system, training of the staff and the stabilisation of the staff.*
- *The main principles for setting up the stabilization and motivation system for public administration employees involved in the utilization of EU funds and reinforcement of administrative capacities are defined by the Government Resolution No. 818/2007 of July 18, 2007 on methods for solving the issue of administrative capacity for drawing resources from Structural Funds and from the Cohesion fund in the period 2007 – 2013, as amended.*

Subsequently, the above mentioned commitments have to be implemented at the level of each operational programme. A more detailed report should specify how these commitments are to be addressed (e.g. analysis of the MA's needs, definition of functions and procedures, formulation of employees' profile, jobs description, quality of the selection and recruitment of new employees). Further, it should describe the way in which the Operational Programme Technical Assistance and the priority axis of the technical assistance of the Transport OP will be used for this objective. Other very important issue is the support of absorption capacity of the beneficiaries and helpful approach of relevant authorities to the beneficiaries.

This implementing report has to be finalised and presented during the first monitoring committee after the adoption of the Transport OP.

## **4.8 Financial Control System**

The Ministry of Finance, as the central administrative body for financial control, in line with the applicable provisions of Act No. 2/1969 Coll., on Establishing Ministries and Other Central Administration Bodies of the CR, as amended, provides for the methodological management, coordination, and financial control in the Operational Programme. The methodological instructions issued, and discussed with the relevant European Commission bodies, are based on the applicable Czech and EC legislation.

In the control system, the system of control in public administration and management control must always be clearly separate from the system of auditing in public administration.

### **4.8.1 Control in Public Administration**

The Managing Authority is responsible for fulfilment of tasks according to Art. 60 of General Regulation and administration and execution of the Operational Programme in line with the principle of sound financial management and therefore ensures that the co-financed operations are selected according to criteria of the Operational Programme and that they are in line with the relevant Community and national regulations during the whole implementation. The Managing Authority ensures performing of controls by checking that the co-financed products and services are supplied, and that the expenses on operations reported by beneficiaries have actually been made. The Managing Authority also provides for the existence of a system for recording and retaining accounting records each operation in electronic form, and the collection of data necessary for auditing. The Managing Authority also has to ensure that all processes and documents concerning OP expenses and audits are available to the European Commission and the Court of Auditors for three years after the closure of the Operational Programme.

## **4.8.2 Internal Control System**

All bodies involved in the implementation of the Operational Programme must introduce the necessary management and control system that will be in line with the national legislation and able to identify on time any administrative, systemic, or intentional errors, and create conditions for error prevention.

### **Management Control**

Management control is ensured through responsible managers and constitutes a part of the internal management of all entities involved in the Operational Programme implementation, in the preparation of operations prior to their approval, in the ongoing monitoring of executed operations up to their final settlement and accounting, and the subsequent check of selected operations during the assessment of the results achieved and the propriety of financial management.

With a view to the principles of efficient and effective management and control system, the following shall be ensured during programme implementation:

- a) All entities involved in programme management and control have their roles clearly defined, both in the overall system and separately, within each entity;
- b) The principle of separation of payment, management, and control functions among entities involved in programme implementation, as well as within each entity, is adhered to;
- c) Clear processes have been set for ensuring the correctness and regularity of the costs reported in the programme;
- d) Reliable accounting, monitoring, and financial reporting systems in electronic form are in place;
- e) A system is in place for providing reports on programme and project implementation and monitoring;
- f) Measures have been taken to audit the functioning of the management and control system;
- g) Systems and processes ensuring appropriate instruments for financial flows audit are in place;
- h) Measures to ensure the substitutability of staff in all positions have been taken;
- i) Processes for reporting and monitoring irregularities and recollection of unjustifiably paid out amounts have been set up.

An internal control system manual will be produced for each level of management, in the form of managed documentation containing a detailed description of the work processes for the given activity.

### **Internal Audit**

The internal audit section will be functionally independent and organisationally separated from the managing and executive structures and will report to the relevant head of the public administration authority.

Internal audit sections will check the internal control system at regular intervals. Their activity will also include checking on compliance with the basic requirements of the internal control system. Submission of recommendations for improving the quality of the internal control system, for preventing or mitigating risks, for taking measures to remedy any problems ascertained, and control activity will also represent an important part of its work.

Reports from internal audits carried out regularly on each level of implementation will be submitted to the relevant head of the public administration authority. A uniform approach to audits on all levels of implementation, and the reporting of audit findings, will constitute the basis for risk management on the Managing Authority level.

### **Risk management on the Managing Authority level**

A risk analysis is elaborated annually in line with the Working Manual of the EU Funds Department in order to analyse mutual relations, context and links in the processes related to activities performed by the department, i.e. operational programmes implementation (OP Transport, OP Infrastructure) and Cohesion Fund projects management in the period 2004-2006 with regard to the fulfilment of agreed intentions and objectives of the Ministry of Transport, mainly in relation to OP Transport.

The methodology for risks identification is based on the principle of individual identification and assessment of individual risks, where the total risk importance for the given activity or operation for the division/department as a whole is calculated based on the number of employees participating in risk identification and evaluation.

The risk management coordinator presents the Report on the up-to-date status and evaluation of the set risk management system to the director of the department. In cooperation with the person(s) in charge, proposals for the elimination of major risks are submitted in this report which is subsequently to be submitted annually to the Monitoring Committee.

In addition to the above mentioned annual risk analysis of the OP Transport implementation, an analysis of major global risks for EU funds absorption was carried out in the context of OP Transport preparation.

**Table No. 1: List of risks related to EU funds absorption in relation to OP Transport**

No.	Risk Description	Mitigating measures
1	Implementation structure changes during the programming period (change in the status or structure of the MoT, SFTI and/or beneficiaries).	Setting the responsibilities of individual entities in Working Manuals that are audited regularly. Changes in manuals are performed based on legislative amendments or in order to improve OP Transport administration. Working Manuals are reflected in the management and control system communicated to the Commission.
2	Potential insufficiency of national funds for co-financing due to the need to finance maintenance and certain non-eligible investments.	Preparing a schedule for financing of OP Transport projects for the entire programming period. Negotiating the EIB loan for OP Transport co-financing. Efforts to use PPP. Cooperating in the preparation of the state budget and SFTI budget for individual years.
3	Insufficient project preparedness on the beneficiaries' side.	Early dialogue with beneficiaries to help ensure quality administrative and absorption capacity of the principal (state) beneficiaries using the technical assistance of the OP.
4	Increasing prices of construction works caused by a huge demand in EU 10 due to EU grants.	Managing the investments in individual years in such a way in order to prevent an excessive accumulation



		of investment activities from individual sources in the current year. (Schedule for Transport Infrastructure Constructions for 2008-2013 was created). MA has established rigorous and proactive tender scrutiny. Verification of tender procedure is necessary for beneficiary to receive EU funding. Undue increase of tender cost could lead to cancellation of tender.
5	Slow approval of projects by the Commission.	Ensuring the submission of well prepared project applications with a sufficient time reserve before launching the investment. Using JASPERS to the maximum in order to simplify the Commission work.
6	Negative external interference (principally of legislative nature) influencing, for example, expenditure eligibility or project sustainability.	Including the MA as a compulsory comments body for all legislative-type measures, influencing even implicitly OP Transport projects.
7	Very complex and non-efficient coordination systems of the Czech operational programmes.	Maximising the use of electronic information systems for the collection, sorting and evaluation of information and its provision to other entities. Proposal to optimise/improve the efficiency of coordination systems.
8	Insufficient administrative capacity of the implementation structure, high staff fluctuation (MA, IB).	Introducing financial and non-financial incentives for public employees leading to an increase in qualification and stabilisation of employees, in line with the government resolution No. 818/2007.
9	Insufficient communication with the public.	Elaborating the communication strategy, creating an integrated information spot for the contact with the public. Introducing simple and transparent 2-way information channels (as a part of the OP Communication Plan).
10	Complicated approval of state aid within OP Transport, or incongruity of conditions for eligible costs and conditions regarding authorised exceptions from the state aid ban.	Setting simple and transparent modes for state aid.

#### 4.8.3 Auditing in the Public Administration

Auditing in public administration, on all levels where financial funds from an Operational Programme are used is, pursuant to Act No. 320/2001 Coll., on Financial Control in the Public Administration and on Amending Certain Acts, as amended, and in line with directly applicable European Communities legal regulations, under the responsibility of the Audit Authority. The Audit Authority, in line with duties defined in Art. 62(a) verifies the effectiveness of the financial management and control system and subsequently tests the correctness of risk transactions in line with the permissible risk ratio. The Audit Authority in accordance with Art. 62(b) ensures that audits are carried out on an appropriate sample of operations in order to verify expenditure declared.

#### 4.8.4 Control carried out by the Supreme Audit Office

The Supreme Audit Office may perform independent inspection work within the meaning of the applicable provisions of Act No. 166/1993 Coll., on the Supreme Audit Office, as amended.

#### **4.8.5 Audits Carried Out by European Commission Bodies and the European Court of Auditors**

**The European Commission** makes sure that management and control systems have been duly introduced and function effectively in the Operational Programme, in line with Article 72 (1) of the general regulation. The European Commission performs this control on the basis of the annual control reports and annual statement of the Audit Authority, and through its own auditing bodies.

**The European Court of Auditors** carries out separate and independent inspections within its competence.

#### **4.8.6 Irregularities**

All of the bodies involved in the implementation of the Operational Programme are obliged to report to the Managing Authority any suspicions of irregularities. The Managing Authority investigates them, and if the suspicions are confirmed based on the control findings, they are handed over to the competent authorities, to launch administrative or court proceedings. Reports filed by control bodies must always be considered well-founded. At the same time, the Managing Authority shall report in due time these well-founded suspicions to subjects involved in the external level of reports.

### **4.9 Project Selection Process Setting**

The beneficiaries will submit projects. Project selection will be performed by OP Transport Managing Authority, on the basis of the results of an expert evaluation, in line with project selection criteria approved by the Monitoring Committee. Major projects (with overall costs exceeding EUR 50M) will be submitted to the European Commission through OP Transport Managing Authority – Ministry of Transport.

The applicants will be requested to document, above all, the following:

- Compliance with OP Transport global objective
- Effectiveness of the use of the funds – value for money
- Meeting the objectives of TP CR and TP EU
- Compliance with intervention area objectives and specific priority axes objectives
- Contribution of project implementation to improving the environment and public health
- Conformity with Community horizontal policies
- In relevant cases, the economic capacity of the applicant.

The completeness and formal correctness of project applications will be checked, as well as the eligibility of costs for the requested intervention, in terms of CF and ERDF rules, and the rules of national public co-financing.

No individual project will receive Community funding (ERDF, EIB or other) before all aspects of EU legislation are complied with and in particular EIA (where requested in accordance with the legislation) are completed.

#### **4.10 Programme Monitoring and Monitoring System**

The Managing Authority and the Monitoring Committee shall ensure the quality of the Operational Programme execution. The Managing Authority and the Monitoring Committee perform monitoring on the basis of financial indicators and indicators specified in the Operational Programme.

The Managing Authority shall provide for the collection of data about programme and project implementation. The Managing Authority shall, in order to achieve effective monitoring, ensure a functional monitoring system, including electronic monitoring of data on projects and programmes. Beneficiaries will supply data about project implementation to the extent and form required by the Managing Authority, so that a sufficient data base is created for the management, monitoring, and evaluation of the programme. The monitoring system shall also provide data to the Monitoring Committee, regarding the central monitoring of EU assistance in the country, and for the European Commission, in the form and on the dates, as required by individual entities.

##### **4.10.1 Programme Monitoring Committee**

The Monitoring Committee is set up pursuant to Article 63 of the general regulation. The objective of the Monitoring Committee is to ensure that the assistance provided is effective and of good quality.

The members of the Monitoring Committee are representatives of MA, Implementing body, interested ministries, regions, cities and towns, experts, NGOs, EIB, European Commission and state investment organisations. Number and exact composition of members is defined in the statute of the Monitoring Committee.

The Monitoring Committee members are appointed and withdrawn, on the basis of the suggestions of the relevant institutions, by the Minister of Transport, adhering to the partnership principle.

A representative of the Managing Authority shall preside over the Monitoring Committee.

The responsibility of the Monitoring Committee is to ensure oversight over the implementation of OP Transport, especially over compliance with EC and Czech legislation, the meeting of programme objectives with an efficient use of public funds, etc.

The Monitoring Committee performs, above all, the following tasks arising from Article 65 of the general regulation:

- Assess and approve criteria for the selection of projects to be financed within six months of the approval of the Operational Programme, and approve any revisions of those criteria based on programming needs;
- On the basis of documents presented by the Managing Authority, assess on a regular basis the progress made towards achieving the specific objectives of the Operational Programme;

- Review the results of implementation, especially whether the objectives set for each priority axis are met, and evaluation according to the Article 48 (3) of the general regulation;
- Assess and approve annual and final implementation reports as stated in Article 67 of the general regulation;
- Receive information about the annual control report, or its part concerning the Operational Programme, and about any related comments which the Commission makes following the review of this report or which concern a particular part of the report;
- May propose to the Managing Authority any revision or review of the Operational Programme which may contribute to the achievement of the objectives of the funds as stated in Article 3 of the general regulation, or which may improve its management, including financial management;
- Assess and approve any and all proposals to change the contents of the Commission decision on fund contributions.

#### **4.10.2 Monitoring System**

The programme's Managing Authority shall ensure the functioning of an effective information system, which will cover all activities related to the implementation of the Operational Programme. The information system will enable easy input of data from beneficiaries, the processing of the data for the purposes of project and programme monitoring management, evaluation, and reporting to the European Commission. The information system will provide outputs in a form required by the connecting systems.

The information system shall ensure, above all:

##### **Substantive programme and project monitoring and management**

- Number and condition of project applications
- Status of evaluation of project applications
- Number and condition of projects
- Status of issuing decisions and amendments
- Meeting the physical programme indicators
- Defining control and monitoring plans and executing them

##### **Financial programme and project monitoring and management**

- Financial plans of the programme and draw-down
- Performing payments
- Financial flow monitoring
- Project cash flow
- Revenue and expenditure forecasts

- Reporting
- Payment certification

#### **Other important functions**

- Monitoring and reporting irregularities
- Audit monitoring
- Generating output sets as required, in electronic and print form
- Providing those sets to the public for its information
- Tracking the history of work in the system – audit trail

#### **System interface**

- The system must enable recipient access through a web interface or another similar way, so that the required information about projects can be provided effectively;
- The system must allow for set export in electronic form, as required by the Commission and relevant national entities;
- The system must allow for the electronic input and output of sets from / into connected information systems.

#### **4.10.3 Ensuring the Monitoring System**

For monitoring of the programming period 2007 – 2013, full functionality of the unified integrated system is ensured from January 1, 2007. This system will enable monitoring on all levels of implementation (central, executive, and applicant/beneficiary). The system will provide for full support of management, monitoring, evaluation and administration of programmes and projects. It is in line with the European Commission requirements and ensures the required function of data collection and transferring of these data to the European Commission and to the Payment and Certification Authority.

According to the Government Resolution No. 198/2006, the MfRD is responsible for this unified central information system for management, monitoring and evaluation of programmes and projects. The MoT actively uses this unified system for execution of the MA activities. The obligation to use the unified monitoring system results from the NSRF. Provision of comparable, objectively accurate and up-to-date data for support of managing, monitoring and evaluation is secured via the centrally valid data range which is defined by the Methodology of Monitoring of the SF and CF in 2007 – 2013.

The IT solution of the SF and the CF monitoring system builds up on the solution applied for the programming period 2004 – 2006. Based on previous experience with implementation, the system was modified and completed by relevant instruments for monitoring, management and evaluation. The monitoring system is drawn up as three-level unit of inter-communicating information systems – central level (MSC2007), executive level (Monit7+) and web account of the Beneficiary (Benefit7). The whole IT system solution is based on principles defined in

the NSRF. All levels of monitoring system are operated on technical equipment of the MfRD, which is also in charge of providing technical guarantees and safeguards of data transfer between individual system levels. The data will be transferred in between individual levels of the SF and the CF monitoring system in regular intervals. The unified technical solution also guarantees sufficient safety and consistency of transferred data. Users of all levels of the SF and CF monitoring system will enter the system through a secured interface via an application gateway on the Internet.

### **MSC2007**

The MSC2007 central level is entirely managed by the Ministry for Regional Development. The development, operation, maintenance and user support is provided by the Department of the Monitoring System Administration of the MfRD. The system provides for central substantive and financial monitoring of programmes and projects, implementation of financial flows according to the Methodology of Financial Flows and Controls of programs co-financed from structural funds, Cohesion fund and European Fisheries Fund for 2007-2013 programming period (hereinafter MFFC – methodology is issued by the PCA), and electronic exchange of data with subordinate levels of information monitoring system, information systems of the Ministry of Finance (especially with the accounting system Viola SF/CF) and the European Commission database SFC2007.

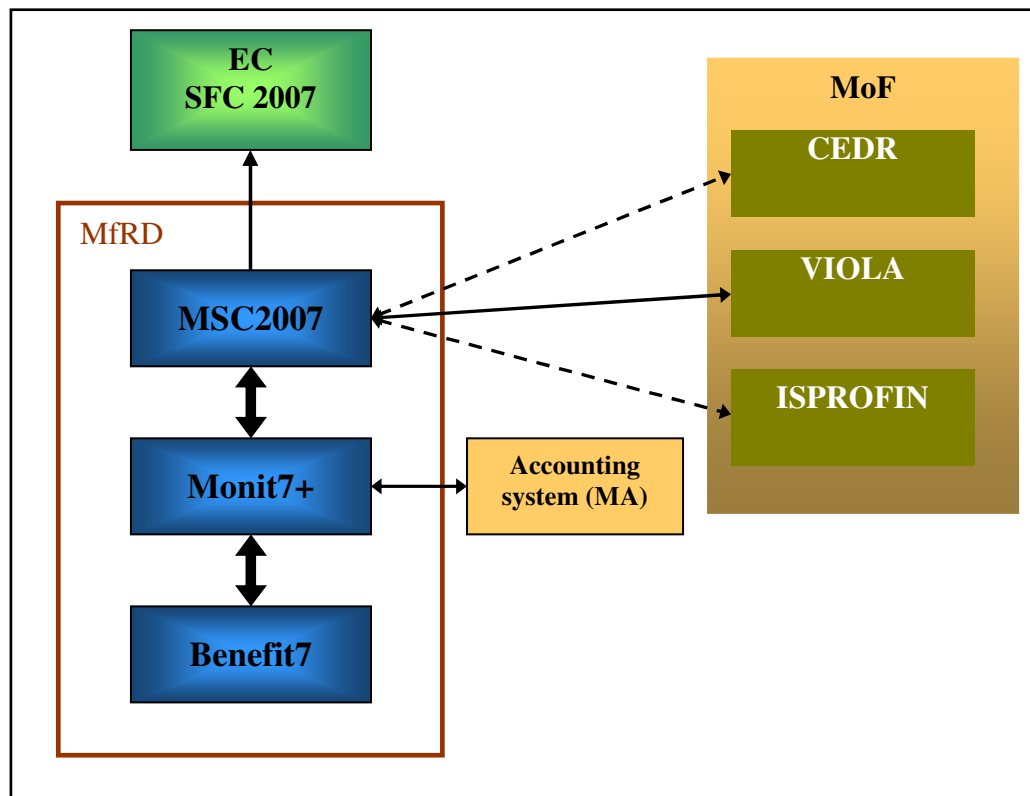
### **Monit7+**

The operating level of information system Monit7 will be used for programme management and project administration. Responsibility for administration of the relevant part of the Monit7+ monitoring system is entrusted to the Managing Authority. The Managing Authority uses the Monit7+ to provide up-to-date information on the status of programme and projects, including information requested by the National Coordinator and the European Commission on particular implementation steps, throughout the entire period of the programme and individual projects. The electronic data exchange with internal information systems of the Managing Authority (e.g. accounting system) is carried out on the Monit7+ level. In accordance with the Agreement on delegation of certain competencies of the Managing Authority, Monit7+ will be used in relevant cases also by the Intermediate Body.

### **Benefit7**

The beneficiary's web account Benefit7 is intended for support of executive activities implemented on the level of individual applicants/beneficiaries. This web interface will enable the whole data communication between the MA and beneficiary/applicant. The web account will primarily enable elaboration of application for support, submission of applications for reimbursement, submission of monitoring reports, etc.

### Scheme of monitoring system levels and its linking up with other IS



#### 4.10.4 Annual and Final Implementation Reports

Every year, the Managing Authority presents to the Monitoring Committee an annual implementation report and sends it to the European Commission by the end of June of the following year; the first report will be submitted to the Commission in 2008.

The final implementation report will be submitted to the European Commission by 31 March 2017.

All annual and final implementation reports should contain the following information, required by Article 67 (2) of the general regulation:

- a) Progress made in the implementation of the OP Transport and priority axes, as related to their specific and verifiable objectives, which if quantifiable, are quantitatively expressed through the indicators listed in chapter **Chyba! Nenalezen zdroj odkazů.** on the priority axis level;
- b) Financial aspects of the OP Transport implementation, with details for each priority axis of:
  - (i) Expenditures made by the beneficiaries which are included in the payment claim sent to the Managing Authority and the corresponding contribution from public sources;
  - (ii) The total amount of payments received from the Commission, and a quantification of the financial indicators in line with Art. 66 (2) of the

General Regulation;

- (iii) expenditures made by the subject responsible for making the payments to beneficiaries;

Financial aspects of implementation in areas drawing temporary support shall eventually be listed separately for each Operational Programme;

- c) Only for informational purposes – an indicative overview of funds allocated by categories, in line with the implementation rules adopted by the Commission by the process specified in Art. 103 (3) of the general regulation;
- d) Measures taken by the Managing Authority or the Monitoring Committee to ensure the quality and effectiveness of implementation, especially:
  - (i) Measures for monitoring and evaluation, including measures for collection of data;
  - (ii) Overview of all serious difficulties occurring during the Operational Programme implementation and any measures taken, as well as any reactions to comments made under Article 68 (2) of the general regulation;
  - (iii) Use of technical assistance;
- e) Measures adopted to provide information about the OP Transport and to ensure its publicity;
- f) Information about serious difficulties concerning compliance with Community legal regulations which have occurred during the OP Transport implementation, and about measures taken to address them;
- g) Any progress and financing made in major projects;
- h) Use of assistance released following cancellation, pursuant to Art. 98 (2) of the general regulation, to the Managing Authority or another public authority during the implementation of the Operational Programme;
- i) Cases when substantial changes according the Art. 57 of the General Regulation were found.

Information listed under letters d), g) h) and i) is not to be mentioned if there was no significant change as compared to the previous report.

#### **4.11 Financial Management**

Without the responsibility of the Commission being prejudiced for the implementation of the EU budget, the Czech Republic's authorities shall be responsible for the financial management and control of assistance under OP Transport.

The financial management of programmes and projects shall take place in a way allowing, to the maximum extent possible, the merging of processes of national public financing and financing from the CF or ERDF.

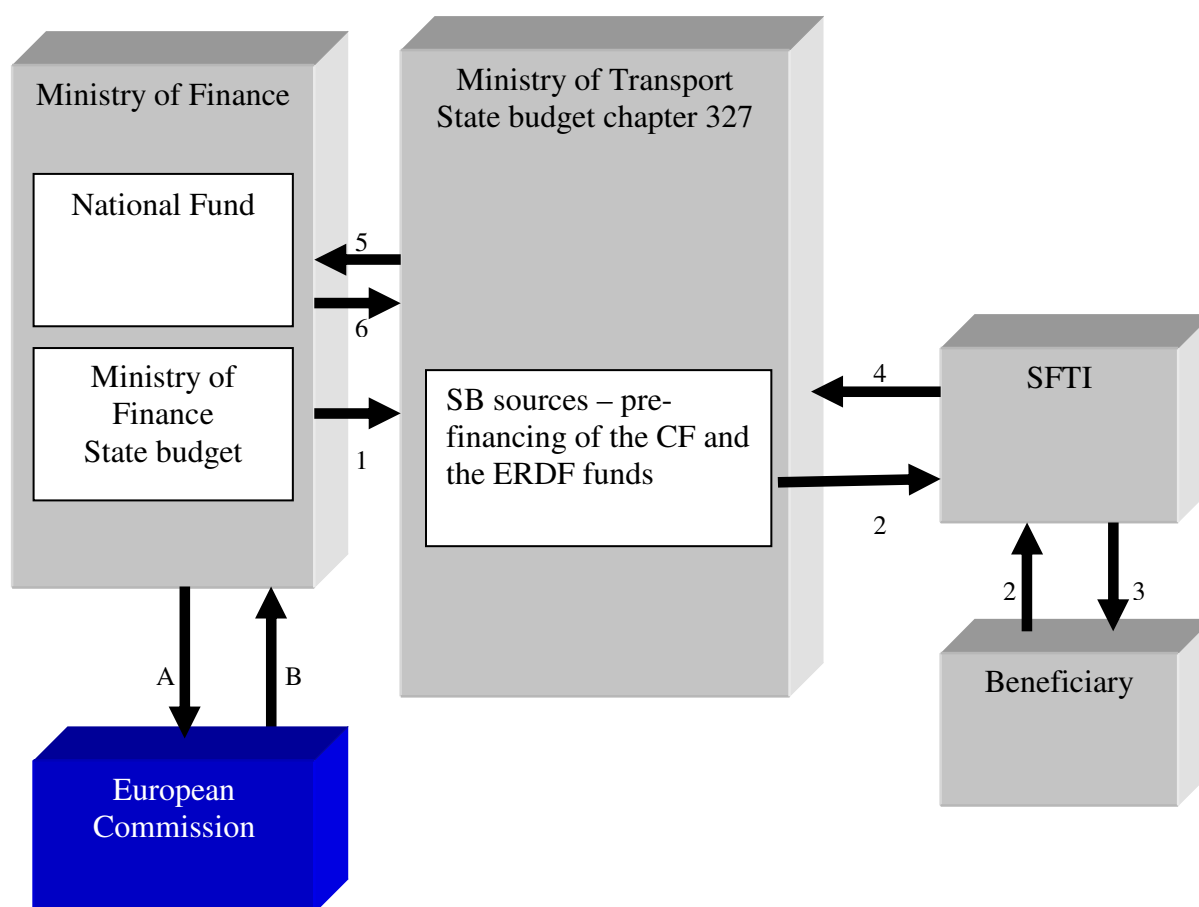


The financial flows system will be described by the MFFC. The Ministry of Finance administers the funds provided by the European Commission for the financing of programmes from Structural Funds and from the Cohesion Fund.

The European Commission sends the finances from Structural Funds and the Cohesion Fund to the account of the Payment and Certification Authority. PCA manages methodologically the funds from Structural Funds and the Cohesion Fund and will also execute the transfer of funds from Structural Funds and Cohesion Fund to the state budget.

The system of the financial flows of funds under OP Transport will be ensured through the state budget. Funds from the ERDF and the CF will be pre-financed to beneficiaries from the state budget, on the basis of their applications for reimbursement from MoT budget (beneficiaries who present their applications in the fields of interventions for which the payments are managed by the IB, will have their payments pre-financed from the budget of the IB). Beneficiaries' applications will only be presented in the currency valid in the CR. The PCA, once it receives a summary claim (based on applications for reimbursement presented by and paid to the beneficiaries), reimburses the funds from the ERDF and the CF to that state budget chapter of MoT. Payments from the EU budget, and into it, are effected in EUR.

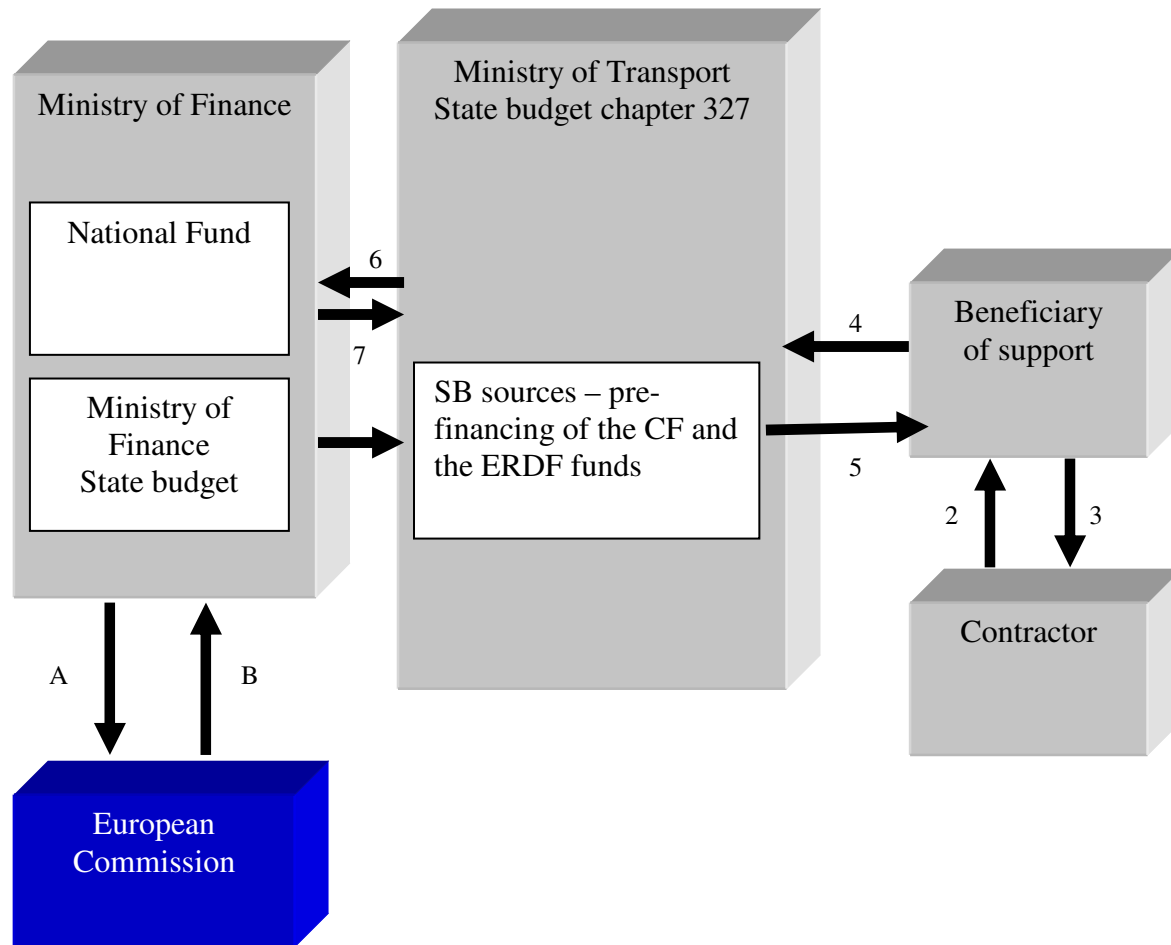
#### 4.11.1 Scheme of OP Transport Financial Flows with the inclusion of the Intermediate Body (SFTI)



1	Based on the negotiations with MoF, the budget chapter administrator in the MoT chapter creates a budget for pre-financing of the CF and ERDF funds.
2	At the beginning of the year, the MoT transfers the pre-financing resources to the SFTI in the intervention fields in which payments to the beneficiaries are effected by the SFTI.
3	SFTI continuously reimburses the costs equal to 100 % of expenditures.
4	On the basis of the expenditures made, the Beneficiary issues an application for reimbursement of resources to be covered by SF/FC and submits it for inspection and approval to the Intermediate Body.
5	The Managing Authority issues the Summary Claim and requests the PCA to reimburse the ERDF and CF funds.
6	<i>The PCA inspects the Summary Claim, posts it (the date decisive for determining the exchange rate for converting funds from CZK to EUR is the date of posting by the PCA) and then credits the funds from the ERDF and the CF to the state budget chapter of MoT.</i>

A	<i>Following certification, the PCA requests the European Commission to replenish funds on its account.</i>
B	The European Commission approves the request and transfers money to the account of the PCA.

#### 4.11.2 Scheme of OP Transport Financial Flows not including the Intermediate Body (SFTI)



1	Based on the negotiations with MoF, the budget chapter administrator in the MoT chapter creates a budget for pre-financing of the CF and ERDF funds.
2	The contractor issues an accounting document.
3	The Beneficiary pays the amount requested by the contractor (in full).
4	On the basis of the expenditures made, the Beneficiary issues an application for reimbursement resources to be covered by SF/FC and submits it for inspection and approval to the Managing Authority.
5	The Managing Authority approves the claim presented, and instructs the appropriate MoT department to effect the payment from the state budget chapter of MoT to the

	Beneficiary's account
6	The Managing Authority issues an Summary Claim and asks the PCA to reimburse the ERDF and CF funds
7	<i>The PCA inspects the Summary Claim, posts it (the date decisive for determining the exchange rate for converting funds from CZK to EUR is the date of posting by the PCA) and then the crediting of funds from the ERDF and the CF to the state budget chapter of MoT is performed;</i>
A	<i>Following certification, the PCA asks the European Commission to replenish funds in its account;</i>
B	The European Commission approves the request and sends money to the account of the PCA.

If advance (ex-ante) payments are provided to the Beneficiaries, the process will be modified accordingly. Other potential variations from this scheme will be administered by regulations of the MFFC.

### **Pre-financing procedure:**

Pre-financing means reimbursement of expenditure to be covered from the SF/CF in advance from the SB, where this amount spent is subsequently transferred from the PCO account to the budget chapter from which the beneficiary received the pre-financing.

### **Co-financing procedures:**

Co-financing means public expenditure which finances that part of eligible expenditure of the project which is not covered by the CF/ERDF grant. Co-financing can be granted from the following sources:

- State budget (especially the Ministry of Transport chapter);
- State Fund for Transport Infrastructure;
- Budgets of regions, cities, and municipalities;
- In exceptional cases from other public budgets.

### **Procedures for reimbursement of the CF/ERDF non-eligible expenditure:**

Expenditure that is part of the project but is not eligible for the CF/ERDF assistance is generally paid by the Beneficiaries from their own resources. If the CR is the Beneficiary, this expenditure will be financed from the SFTI sources or from the resources of the relevant SB chapter (depending on the type of expenditure and Beneficiary).

### **Other general procedures:**

In case the CF/ERDF grant is refunded to the Beneficiary, the expenditure spent on project costs are covered from the Beneficiary sources until this reimbursement. In case the Beneficiary is the CR or public subject, this expenditure will be covered from the respective public budget.

The processes for providing pre-financing and co-financing will be set for each variant in such a way as to minimise administrative burdens on the beneficiaries and OP Transport implementation structure, and to ensure, at the same time, an effective programme and project management.

## **4.12 Compliance of the OP with Community Policies**

OP Transport Managing Authority is responsible for ensuring the compliance of the OP Transport interventions with Community policies during the implementation of OP Transport and of the individual interventions.

### **4.12.1 Compliance with State Aid Rules**

The Managing Authority ensures that any state aid granted under OP Transport will comply with the procedural and material legal state aid rules applicable at the point of time when the public support is granted.

### **4.12.2 Public Procurement**

Contracts for goods, services, and work to be financed under OP Transport will be executed in line with the applicable national and community public procurement legislation.

### **4.12.3 Environment legislation**

All projects supported from OP Transport will comply with the "letter and spirit" of the relevant Community environmental legislation and national environmental legislation.

## **4.13 Promotion and Publicity**

In line with Article 69 of the general regulation and in terms of implementing regulation, the Managing Authority will provide information about the projects and the programme and ensure their publicity. The information is to be provided to European Union citizens and support beneficiaries, and aims to emphasise the role of the Community and ensure that assistance provided by the funds is transparent.

Publicity and information will be provided in line with the provisions of the implementing regulation concerning promotion and publicity.

Promotion and information measures under the Operational Programme must be undertaken on two primary levels:

- Ensuring information and publicity for potential support beneficiaries and the general public;
- Ensuring publicity by support beneficiaries during project implementation.

Given the nature of the programme, where the main beneficiaries are from a limited number of organisations ensuring transport infrastructure administration, the communication strategy will focus, above all, on informing the public and economic and social partners about the role of OP Transport and of the EU in the financing of individual projects, and about the benefits they bring.

OP Transport MA will elaborate a Communication Plan for OP Transport (hereinafter “CP”), which will build up on the communication strategy for assistance from the ERDF and the CF. In drafting the OP Transport CP, the communication strategy of the NSRF will also be respected. OP Transport MA shall submit to OP Transport Monitoring Committee annual and final reports containing a chapter on “implementing information and promotion measures”, including an overview of the monitoring indicators which will monitor the CP implementation.

OP Transport MA will appoint a communications officer responsible for the drafting and implementation of the CP.

The CP and information about the appointment of the communications officer will be sent to the Commission in line with the Implementation Regulation.

Implementation of OP Transport promotion and publicity will be financed from OP Transport Technical Assistance.

#### **4.14 Evaluation**

In line with the provisions of Articles 47 and 48 (from the Member State perspective) and 49 (from the EC perspective) of the general regulation, evaluations will be performed during the implementation of OP Transport. OP Transport MA will prepare an evaluation plan including all evaluation activities of strategic nature directed at improving the strategy and management of the assistance implementation, especially a summary evaluation for strategic reports, pursuant to Article 29 of the general regulation, ex ante evaluation for the upcoming programming period, and, if possible, even evaluations of operational nature (i.e. ongoing evaluations and ad hoc evaluations). The plan shall include the option for ad-hoc evaluation. The plan shall also account for cooperating with the European Commission on the preparation of an ex post evaluation. The assessment plan will also include activities directed at improving the evaluation capacity. The main items of the evaluation plan will be proposed in co-ordination with the NCA evaluation unit. The evaluation plan will be elaborated for the entire programming period and will be updated every year; details for the upcoming calendar year shall be elaborated. Compliance with the evaluation plan will be assessed annually.

Due to the specific nature of financed operations (mostly large infrastructure projects) the evaluation performed by the MA in accordance with art. 48 par. 3 of the general regulation will concentrate on output indicators fulfilment of which can be assessed immediately after the cofinanced operation will be completed. Significant part of the financed operations will be infrastructure construction project with project duration of several years and therefore it is important for the MA to have at least rough estimate of OP Transport objectives fulfilment right at the end of such a long term projects. This estimate based on the output indicators will allow the MA to propose amendments to OP Transport if needed.

The result and impact indicators will be important part of the evaluation but due to the time for them to show their values and impact in statistics which is the main source of their values they can not be source of necessary information for MA for flexible management of OP Transport especially in the beginning of the programming period 2007 – 2013. Their significance will increase in time and they will be important part of strategic evaluations of OP Transport – see below.

Evaluation will be carried out by specialists or entities, either internal or external and functionally independent on the bodies listed in Art. 59 (b) and (c) of the general regulation.

The evaluation results will be published by the Managing Authority on the OP Transport web pages.

### **Evaluation Unit**

In line with Art. 47 (3) of the general regulation, OP Transport MA will provide appropriate capacity for evaluation independent of the PCA and AA of OP Transport, above all, for:

- Proposing an evaluation plan and updating it annually;
- Implementing the evaluation plan;
- Elaborating the criteria for the selection of external evaluations providers;
- Organising tenders for the implementation of evaluation projects;
- Creating optimum conditions for the implementation of evaluation projects, and their co-ordination with the use of specialised groups;
- Assessing the compliance with the evaluation plan;
- Presenting the results of the evaluation plan implementation to the Monitoring Committee;
- Developing the evaluation capacity for the OP Transport;
- Presenting the results of evaluation activities to the responsible entities as to the maximum possible extent;
- Broad publicity for the results of the evaluation of OP Transport and the dissemination of the experience gained through the evaluation for the purpose of improvement of the quality, effectiveness and synergy of grants awarded from OP Transport;
- Comments on materials submitted during cooperation with other evaluation units, including NSRF evaluators.

Evaluation performed during the programming period (on-going evaluation) will comply with the Working Document No 5 “Indicative Guidelines on Evaluation Methods: Evaluation during the Programming Period” prepared by DG REGIO and therefore comprise of evaluation of the strategic, operational and ad hoc character.

### **Evaluation plan**

The intended activities of OPT evaluation are specified in the OPT Evaluation plan. The first version of the plan was presented to the OPT Monitoring Committee at the first meeting on 16. May 2007.

On the base of appraisal of the preceding evaluation outcomes, the needs identified and suggestions from OPT MA, implementing bodies, NCA and other relevant subjects an yearly update of the OPT Evaluation plan will be carried out each year (first in the end of 2008). The updated evaluation plan will be approved by OPT MA and discussed by MC.

The OPT Evaluation plan 2007-2013 includes following fields of activities.

### **Operational evaluations**

Operational evaluations are focused on the evaluations of the progress and implementation effectiveness based on the data obtained from monitoring and on the evaluation of the implementation and monitoring structures and processes. Operational evaluations also include thematic evaluations focused on either the specific theme areas (priorities) or aspects (e.g. territorial, EU comparative) of the interventions.

An on-going evaluation of the implementation results and process will consist particularly in regular (quarterly) analyses of the monitoring outcomes. On the base of identified problems follow up (ad-hoc) evaluation studies will be carried out. In the case of significant diversion from the OP objectives the evaluation will assess the causes and seriousness of the diversion and then propose solution of the identified problems (barriers or constraints in implementation) or possible revision/reallocation of the OP targets/resources.

Reason for commencing an operational evaluation (on-going or ad hoc evaluation) will be mostly the insufficient fulfilment of one or more monitoring indicators, which are monthly assessed not only by MA but also on national level by the NCA.

### **Strategic evaluations**

According to the Article 29, Paragraph 2 of the general regulation strategic reports shall be submitted – the first until the end of the year 2009, the second till the end of the year 2012. Each of those reports shall include evaluation of the contribution of the programmes financed from the SF and CF to the cohesion policy objectives, to the fulfilment of the tasks of each individual fund, to the CSG, the NSRF and to the fulfilment of the growth and employment objectives. The evaluation will significantly contribute to the basis of these reports. The OP Transport MA will provide necessary data and cooperation with the NCA, which will be responsible for elaboration of these reports.

Further planned evaluations of strategic nature are the evaluations of the OP result and impact indicator values fulfilling, the evaluation of the OP impact on the horizontal issues and the evaluation of the OP macroeconomic impacts. Carrying out of strategic evaluation is planned also for the case when there is a proposal for OP revision according to the article 33 of the general regulation. The preparation for the 2014-2020 programming period including ex-ante evaluation and SEA of a new OP is taken into account too.

### **Ad hoc evaluations**

The ad hoc evaluations are commenced according to momentary needs in relation to either above mentioned significant findings from monitoring, controlling or other needs (e.g. reports to management). Ad hoc evaluations represent the most flexible part of the OP Transport evaluation plan.

### **Evaluation capacity development**

Activities (training, methodical, exchange of experience etc.) focused on the evaluation capacity development within the OPT implementation structure are also included in the OPT evaluation plan.



## 5 FINANCIAL COVERAGE

### 5.1 *Financial Coverage of the Transport Sector*

Financial Sources for Transport Infrastructure in the period 2007 – 2013 (2015)

The main source of financing of the transport infrastructure in the period 2007 – 2013 can be divided by type into the following:

- National public sources of the CR (SFTI, state budget);
- EU Structural policy funds (OP Infrastructure, ISPA/CF 2000 – 2006, OP Transport);
- Funds from the TEN-T financial instrument;
- Loans (primarily from the EIB);
- PPP.

#### **National public sources of the CR (SFTI, state budget)**

The public national resources of the CR granted through the state budget and the SFTI will remain the main financial source for the transport infrastructure in the EU budgetary period 2007 – 2013. The SFTI expenditure in the period 2008 – 2010 will amount to at least CZK 45 bn every year. These sources will be used for both national actions and co-financing of the EU funds in cases when the co-financing will not be covered by the EIB credits. In special cases, the SFTI will also pre-finance the EU projects (e.g. in case of implementation before the EC approval). The indicative division is foreseen at 39.5 % of investments to railway, 59.5% to roads and 1 % to inland waterways.

#### **EU Structural policy funds**

In 2007 and 2008 (OP Infrastructure) and 2007 – 2011 (CF), the assistance from the Structural policy 2000 – 2006 will wind up. For more information, see the chapter on reflection of the EU funds support, OP Transport will be the only source for infrastructure as defined in this programme from the Structural policy.

In case of regional Class II and III roads, the main source will be represented by the ROPs and regional budgets.

#### **Sources from the TEN-T financial instrument**

Within the MIP and NON MIP TEN-T calls for proposals, the CR will apply for sources from this instrument, especially for project preparation and related project studies. Applications will be also submitted for works, primarily in case of ERTMS and important cross-border projects. Assistance will be coordinated with OP Transport funds in order to achieve synergic effects (the most frequent combination should be preparations financed from the TEN-T and works from OP Transport).

Utilization of the TEN-T financial instrument is foreseen mainly for railway projects which form part of the Priority projects 22 and 23 and which are defined by the European Parliament and Council Decision No. 884/2004/EC. Sources from the TEN-T financial instrument will be

used mainly for elaboration of preparatory and project documentations (studies) under NON-MIP and for investment projects under MIP.

### **Loans (primarily from the EIB)**

The EIB takes active part in financing of transport infrastructure. For the programming period 2007 – 2013, the CR actively negotiates with the EIB on provision of loan for co-financing of OP Transport. The EIB sources will be combined with the sources of the CR so that 100 % of project costs would be covered. Currently, the presumed loan volume amounts to CZK 34 billion for the period 2008 – 2010.

### **Public Private Partnership – PPP**

One of the considered economic instruments is also represented by the development of suitable investment projects for modernization of transport infrastructure using the partnership of public and private sector (PPP) financing.

Term PPP (Public Private Partnership) represents method of ensuring public services or public infrastructure through close cooperation with private sector. The basis for PPP is long-term contractual relation where the private sector takes over the key competences of financing, investing and operating the public service and the public service pays by one of three alternative ways:

- Fee for accessibility of public service;
- Fee for the scope of the public service provided, or
- Concession for direct collection of fees from the public.

The PPP projects can be implemented in various models and there are several ways of combining the PPP and the EU funds in one project.

In case of transport sector this mainly concerns commencement of D3 Motorway financing, in section Tabor – Bosilec. Use of this principle is also considered for further construction of D3 and R4, and in railway transport especially for project AIRCON – connection Prague-Ruzyne airport (TEN-T) with the centre of Prague (railway junction TEN-T). Taking into account that the PPP principle will be a new method of financing, assessment will take place when the first projects are finished and the optimal method of the PPP principle in the next period will be selected.

During the preparatory phase of the PPP projects, the financial consultants have to analyze all available sources of financing, including potential assistance from the OP Transport and recommend to the MA the most effective way of financing. The MA will co-operate with the selected financial consultant in order to provide for the best possible conditions for use of EU Funds in the PPP projects.

One of the economic instruments to be considered is development of suitable investment projects for modernization of transport infrastructure through the PPP.

The partnership of public and private sector might, under some conditions, be of great interest for the public sector, especially for preparation and implementation of infrastructure projects. Principal advantages of PPP for public sector are following:

- saving of public resources
- possibility of increased volume of investment (leverage effect)

- better "value for money" due to private sector's experience
- reduced length of the construction periods
- high technical quality of projects
- lower level of risk for public sector since some risks are transferred to private sector

Nevertheless, PPP projects are not necessarily profitable for public sector. Therefore, to ensure successful use of PPP and to reduce economic risks, public authorities have to focus on several aspects:

- to use right PPP model
- to encourage competition among prospective private partners
- to protect public interest
- to guarantee viability of project without any undue profit resulting from public subsidies

The experience in PPP for the realisation of infrastructure projects is limited in the Czech Republic.

To enable successful launch of PPP projects thorough knowledge of all preparation procedures is inevitable: feasibility assessment, public procurement, financial plan, and implementation of project under the best conditions, effectiveness of a project's operation. Therefore Ministry for Regional Development in cooperation with PPP Centre of Ministry of Finance will, by April 2008, prepare methodology and manual for beneficiaries who will be interested to launch this type of partnership.

The MfRD elaborated (pursuant to the Government Decree No 536/2007) the detailed Methodological interpretation of the "Concession Contracts and Concession Procedures Act No 139/2006 (Concession Act)", as an important aid for the whole process of the PPP projects preparation and implementation; it can be applied namely by regions, cities and municipalities. According to the above Decree, the CR Ministry of Finance prepares partial methodologies for the areas of taxation and finance. In the year 2008 the Czech Republic will thus have a complete legislative and methodological framework for the preparation and implementation of the PPP projects. In 2008, the Ministry of Regional Development will prepare studies identifying types of projects within individual Operational Programmes that would be eligible for the application of the PPP method. Such studies and activities will be supported from the OP Technical Assistance.

The first task of Managing Authority of the OP Transport is to promote PPP projects and to disseminate the above mentioned information and reports to prospective beneficiaries in the form of workshops, seminars, conferences, publications, etc.

Managing Authority of the OP Transport will by December 2008 at the latest, on the basis of the above and the experience which will be reached with the envisaged construction of the D3 Motorway "section Tabor – Bosilec", as well as of some other sections of the D3 and R4 (to be defined) but also with the railway the AIRCON project – connecting the Prague-Ruzyně airport (TEN-T) with the centre of Prague (railway junction TEN-T), planned to be realised under a PPP scheme, enable within the calls for proposals of OP Transport priority axes to submit PPP projects. Technical assistance will be at disposal to final beneficiaries who will plan to introduce PPP projects proposals.

The fundamental target of the OP Transport will be to carry out as many PPP projects as possible in the programming period 2007-2013. These projects will create positive experience and it is expected that this will create positive dynamics for other partnerships of this type.

When considering implementation of a particular project through partnership of public and private sector it will be inevitable to prevent undue profit and to preserve equal and transparent approach while respecting national and Community law. This applies especially to the area of public support.

## **5.2     *Financial Coverage of OP Transport***

The distribution of support among the Operational Programmes proposed in the NSRF is decisive for the amount of co-financing from the ERDF and CF to be granted for OP Transport. The absorption capacity potential of each area was set based on the background materials of the MoT, provided by the appropriate ministry sections. These requirements were co-ordinated with the requirements of the representatives of the regions and further modified, especially in line with the proposed TP CR, and with the requirements of the RMD CR, RIA, and Regional Authorities.

OP does not presume the utilization of cross-financing according to Article 34 of the general regulation.

Rate of financing is fixed, in line with Article 53 of the Council Regulation (EC) No. 1083/2006 and Annex III of this Regulation, at 85 % of eligible expenditure of a project. Provisions of Article 55 of the Council Regulation (EC) No. 1083/2006 on projects generating profit will be taken into account when determining eligible costs.

**Table 33: Indicative Financial Plan of OP Transport, by Year**

**OP Transport**  
**Distribution of allocations, by fund and year**  
**(mil. EUR, regular prices)**

	<b>Structural Funds (ERDF or ESF)</b>	<b>Cohesion Fund</b>	<b>Total</b>
	<b>1</b>	<b>2</b>	<b>3=1+2</b>
2007	144 178 837	572 229 657	716 408 494
2008	151 662 639	599 985 014	751 647 653
2009	159 174 961	627 865 900	787 040 861
2010	167 045 895	657 043 197	824 089 092
2011	174 914 962	686 239 266	861 154 228
2012	182 748 693	715 335 948	898 084 641
2013	190 717 663	744 938 571	935 656 234
<b>Total 2007 – 2013</b>	<b>1 170 443 650</b>	<b>4 603 637 553</b>	<b>5 774 081 203</b>

**Table 34: Indicative Financial Plan of OP Transport, by Priority Axes****OP Transport**

Allocation distribution according to priority axes  
(EUR, current prices)

Priority number	Priority name	Fund/rate of co-financing related to	Community contribution	National sources	Indicative distribution of national sources		Total sources	Rate of co-financing	For information	
					National public sources	National private sources				
			a	b(=c+d)	C	d	e=a+b	f=a/e	EIB	Other sources
1	Upgrading and development of the TEN-T railway network	CF/public	2 190 331 352	386 529 062	386 529 062		2 576 860 414	85%	386 529 062	66 316 755
2	Construction and upgrading of the TEN-T motorway and road network	CF/public	1 607 696 540	283 711 155	283 711 155		1 891 407 695	85%	283 711 155	
3	Upgrading of the railway network outside the TEN-T network	CF/public	393 547 402	69 449 542	69 449 542		462 996 944	85%	69 449 542	
4	Upgrading of Class I roads outside the TEN-T	ERDF/public	1 051 016 928	185 473 576	185 473 576		1 236 490 504	85%	185 473 576	
5	Upgrading and development of Prague Underground and of systems for the management of road transport in the city of Prague	CF/public	330 076 926	58 248 869	58 248 869		388 325 795	85%		
6	Support for multimodal transport and development of Inland waterway transport	ERDF/public	119 426 722	21 075 304	21 075 304		140 502 026	85%		47 811 027
7	Technical assistance	CF /public	81 985 333	14 468 000	14 468 000		96 453 333	85%		
<b>Total</b>		<b>ERDF+ CF</b>	<b>5 774 081 203</b>	<b>1 018 955 508</b>	<b>1 018 955 508</b>		<b>6 793 036 711</b>	<b>85%</b>	<b>925 163 335</b>	<b>114 127 782</b>
out of that : CF		CF	4 603 637 553	812 406 628	812 406 628		5 416 044 181	85%		66 316 755
ERDF		ERDF	1 170 443 650	206 548 880	206 548 880		1 376 992 530	85%		47 811 027

*Rate of co-financing related to public sources.*

*In case of revenue generating projects eligible expenditure used as a basis for calculating the contribution from Funds are: Total investment cost less non eligible expenditure according to art. 56 of General Regulation and less net revenue according to art. 55 of General Regulation.*

*Private sources are indicated for information in column "Other sources". Private sources are expected only in Priority axes 1 and 6 where state aid will be provided.*

**Table 35: Indicative breakdown of the Community assistance by category in the Operational Programme Transport**

<b>Indicative breakdown of the Community contribution by category in the Operational Programme Transport</b>					
<b>Dimension 1</b>		<b>Dimension 2</b>		<b>Dimension 3</b>	
<b>Priority theme</b>		<b>Form of finance</b>		<b>Territory</b>	
<b>Code</b>	<b>Amount</b>	<b>Code</b>	<b>Amount</b>	<b>Code</b>	<b>Amount</b>
16 Railways	393 547 402 EUR	01 non-repayable assistance	5 774 081 203 EUR	00 not relating to	5 444 004 277 EUR
17 Railways (TEN-T)	2 152 751 858 EUR			01 city	330 076 926 EUR
19 Mobile Railway Means (TEN-T)	37 579 494 EUR				
20 Motorways (R outside TEN-T)	563 008 464 EUR				
21 Motorways (TEN-T) incl. R	1 519 273 230 EUR				
22 Class I Roads	488 008 464 EUR				
25 Urban Transport	297 069 233 EUR				
26 Multimodal Transport	13 612 915 EUR				
27 Multimodal Transport (TEN-T)	13 480 000 EUR				
28 Intelligent Transport Systems	121 431 003 EUR				
31 Inland Waterways	4 616 690 EUR				
32 Inland Waterways (TEN-T)	87 717 117 EUR				
85 Preparation of Monitoring and Control	70 786 800 EUR				
86 Analyses and Studies, Information and Communication	11 198 533 EUR				
<b>Total</b>	<b>5 774 081 203 EUR</b>	<b>Total</b>	<b>5 774 081 203 EUR</b>	<b>Total</b>	<b>5 774 081 203 EUR</b>

**Table 36: Indicative calculation of share of OP Transport resources included in the Lisbon priorities interventions (Earmarking)**

Code	Category according to Art. 9 (3)*	Amount	Share on OP Transport allocation		
			Lisbon	Other	Total
16 Railway	yes	393 547 402 EUR	6.82%		6.82%
17 Railway (TEN-T)	yes	2 152 751 858 EUR	37.28%		37.28%
19 Mobile rail vehicles (TEN-T)	no	37 579 494 EUR		0.65%	0.65%
20 Motorways (Ex. outside TEN-T)	yes	563 008 464 EUR	9.75%		9.75%
21 Motorways (TEN-T) incl. R	yes	1 519 273 230 EUR	26.31%		26.31%
22 Class I roads	no	488 008 464 EUR		8.45%	8.45%
25 Urban transport	no	297 069 233 EUR		5.14%	5.14%
26 Multimodal transport	yes	13 612 915 EUR	0.24%		0.24%
27 Multimodal transport (TEN-T)	yes	13 480 000 EUR	0.23%		0.23%
28 Intelligent transport systems	yes	121 431 003 EUR	2.10%		2.10%
31 Inland waterways	no	4 616 690 EUR		0.08%	0.08%
32 Inland waterways (TEN-T)	yes	87 717 117 EUR	1.52%		1.52%
85 Preparation of monitoring and control execution	no	70 786 800 EUR		1.23%	1.23%
86 Evaluation and studies, information and communication	no	11 198 533 EUR		0.19%	0.19%
<b>Total</b>		<b>€ 5 774 081 203.00</b>	<b>84.25%</b>	<b>15.75%</b>	<b>100.00%</b>

\* Annex IV to the Council Decision (EC) No. 1083/2006 from July 11, 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund, and on repeal of the Regulation (EC) No. 1260/1999

The Lisbon Strategy fulfilment is described in the Table No 36.

The OPT aims to fulfil Lisbon Strategy Objectives mainly through the intervention area 17 - Railway (TEN-T) and 21 - Motorways (TEN-T).

Indicative total allocation for fulfilment of the objectives of Lisbon strategy amounts to 84,25% of total financial resources of the OPT.



## **List of Appendices**

Appendix 1 List of Major Projects

Appendix 2 Transport Streams Intensity

Notification:

Lists of project summaries listed in Appendix 1 and schemes in Appendix 2 are to be considered as indicative. The data can be refined and changed during the programming period in line with approval processes in the CR.

## **List of Abbreviations**

AA	Audit Authority
AGC	European Agreement on Main International Railway Lines
AGN	European Agreement on Main Inland Waterways of International Importance
AGR	European Agreement on Main International Road Lines
AGTC	European Agreement on Important International Combined Transport Lines and Related Installations
AMS	Automated monitoring station
CBA	Cost Benefit Analysis
CF	Cohesion Fund
CF Regulation	Council regulation (EC) No. 1084/2006 on establishing of the Cohesion Fund and on repeal of the Regulation (EC) No. 1164/1994
CNB	Czech National Bank ( <i>Česká národní banka</i> )
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
Commission	European Commission
CP	Communication Plan
CR	Czech Republic
CSG	Community Strategic Guidelines 2007 – 2013
CT	Combined Transport
CHMI	Czech Hydro-meteorological Institute ( <i>Český hydrometeorologický ústav</i> )
CSO	Czech Statistical Office ( <i>Český statistický úřad</i> )
Decision No. 884/2004/ES	Decision No 884/2004/EC of the European Parliament and of the Council of 29 April 2004 amending Decision No 1692/96/EC on Community guidelines for the development of the trans-European transport network

EC	European Community
EEC	European Economic Community
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EP	European Parliament
ERDF	European Regional Development Fund
ERDF Regulation	European Parliament and Council Regulation (EC) No. 1080/2006 on the European Regional Development Fund and on repeal of the Regulation (EC) No. 1783/1999
ERTMS	European Rail Traffic Management System
ESF	European Social Fund
EU	European Union
FP	Firm particles
GDP	Gross Domestic Product
General Regulation	Council Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund, and the Cohesion Fund, and on repeal of the Regulation (EC) No. 1260/1999
ITS	Integrated transport system
Implementation Regulation	– the Commission Regulation (EC) No. 1828/2006 of 8 December 2006 which is laying down implementing provisions to the Council Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund, and to the European Parliament and Council Regulation (EC) No. 1080/2006 on the European Regional Development Fund.
ILT	International Lorry Transport
IPT	Individual passenger transport
ISPA	Instrument for Structural Policies for Pre-Accession
ITS	Intelligent Transport Systems
MA	Managing Authority
MC	Monitoring Committee
ME	Ministry of the Environment
MF	Ministry of Finance
MFFC	Methodology of Financial Flows and Controls of programs co-financed from structural funds, Cohesion fund and European Fisheries Fund for 2007-2013 programming period
MI	Ministry of the Interior
MIT	Ministry of Industry and Trade

MPT	Mass public transport
MfRD	Ministry for Regional Development
MSC2007	Monitoring System Central 2007
MoE	Ministry of Environment
MoT	Ministry of Transport
NCA	National Co-ordination Authority
NGO	Non-governmental non-profit organisation
NO <sub>x</sub>	Various Nitrogen Oxides
NRP	National Reform Programme for 2005 – 2008
NSRF	National Strategic Reference Framework
NUTS	Nomenclature of Territorial Statistical Units
OP	Operational Programme
Pass-km	Passenger kilometre
PCA	Payment and Certification Authority
PLC	Public Logistical Centre
PPP	Public Private Partnership
R&D	Research and Development
RIA	Railway Infrastructure Administration, state organisation ( <i>Správa železniční dopravní cesty, státní organizace</i> )
RMD CR	Road and Motorway Directorate of Czech Republic ( <i>Ředitelství silnic a dálnic ČR</i> )
Ro – La	Rolling Road – Transport of complete road vehicles on the railway
ROP	Regional Operational Programme
SB	State Budget
SEA	Strategic Environmental Assessment (assessment of the impact of a strategy (document, plan) on the environment)
SEF	State Environmental Fund ( <i>Státní fond životního prostředí</i> )
SF	Structural Fund
SFTI	The State Fund for Transport Infrastructure ( <i>Státní fond dopravní infrastruktury</i> )
SO <sub>2</sub>	Sulphur dioxide
SPV	Special Purpose Vehicle
SWOT	Strengths-Weaknesses-Opportunities-Threats Analysis
TA	Technical Assistance
TEN-T	Trans European Network-Transport
TER	Trans European Railways

TEU	Twenty-foot Equivalent Unit
TINA	Transport Infrastructure Needs Assessment
TP CR	Transport Policy of the Czech Republic for 2005-2013
TP EU	White Paper: European Transport Policy up to 2010 – Time to Decide
TRC	Transit Railway Corridor
TSI	Technical Specifications for Interoperability
UIC	International Union of Railways
UMT	Urban mass transport
UN ECE	UN Economic Commission for Europe
VOC	volatile organic compounds
WD CR	Waterways Directorate of Czech Republic ( <i>Ředitelství vodních cest ČR</i> )
WHO	World Health Organisation

## Definitions:

**Multimodal terminal:** complex of estates, constructions and equipment for the purposes of multimodal transport. For example the surface part of public ports or CT transshipment stations can be part of these constructions.

**PLC:** Public logistical centres are places designated for the concentration of the offer of a broad range of logistical services, including combined transport, where service by at least two modes of transport can be obtained (road/railway/inland waterway/air). A precondition for its establishment / location is the existence of sufficient production / consumption and a connection to the transport infrastructure of several modes of transport. The public interest lies in achieving as perfect and efficient transport serviceability of a specific area as possible, and in reducing the negative impact of increased road transport on the environment and public health. The PLC operator is obliged to enable utilization of all PLC service under non-discriminatory conditions and agreed price to a person who requests it. Prior coming into operation of the PLC, its operator is obliged to make public the contract conditions, price list and scope of provided services.

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