

Response to questionnaire for:

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

Country:

Serbia

1 INTRODUCTION

Transport competitiveness depends on quality of the infrastructure but also on the efficiency of services provided. Transport in Serbia is considered as a system which includes all transport modes, as well as intermodal transport. Each transport mode contributes to the overall competitiveness of the transport system only if there is a synergy of actions related to different transport modes. This means implementing a purposeful planning and results-approached management, transport flows management, transport network development, increase in safety and efficiency, fair determination of prices, environmental protection, social responsibility, and strengthening of the internal market and the market external dimension (transit and export of transport services). In the context of EU accession, transport system of Serbia is considered as future part of EU transport network, so development plans and other initiatives should correspond/correlate with the initiatives at the EU level.

In the area of **transport policy**, the process of integration of Serbia with the European Union brings very specific requirements for the gradual liberalisation of the transport market.

From the modal split¹ point of view, the core actors in Serbian freight traffic are the railway and road modes, with a significant contribution from inland waterways transport. Though the roads represent a dynamic and most dominant transport mode, the road freight performance expressed in tkm represents 23.6%, while railways reaches 59.0%. The largest share in passenger transport being held by urban transport with 45% and road transport mode with 40% of total usage expressed in pkm. Statistical data of passenger transport does not include transportation by passenger cars.

Transport makes a valuable contribution in terms of activity and GDP growth in Serbia and is considered one of the major contributors to the economy's development, employment and future increase in competitiveness. Current statistics show that the transport sector is contributing by around 3.2% to GDP and 4.13% of total employment². In the first six months of 2010 the largest growth of gross value added (GVA) was marked in the transportation (7.2%)³.

The basic transport infrastructure of the Republic of Serbia can be considered a good basis for further development.

The motorway network density of 4.8 km/1000 km² in 2009 was comparable with Macedonia or Montenegro, and about a half of the density of this category road in Austria (19.9 km/1000km²) or the United Kingdom. In the period 2009-2011 there have been completed 180 km of motorways⁴. The construction of motorway network continues with IFIs support, with the aim of completing Serbian parts of the Pan European Transport Corridor X and main routes of the core regional transport network. Further development is required in increasing the road safety of constructed motorways and setting up of information system with video detection and active traffic signalisation. The total costs of road infrastructure projects suggested for implementation until 2027 are €13.751 million for investments and maintenance.

The railways infrastructure density of the Republic of Serbia of 49.2 km/1000km² is comparable with the average of EU-27 (50.1 km/1000km²). In the period 2009-2011 there

¹ Serbian Statistics Office, Statistical Yearbook 2010. The data mainly refer to public transport operators with very small share of data obtained from privately owned road transport operators which prevails in road transport sector. The mentioned data do not reveal realistic situation in view of the share of modes on the transport market.

² Statistical Yearbook 2011, Statistical Office of the Republic of Serbia

³ Revised memorandum on the budget and economic and fiscal policy for 2011 with forecasts for 2012 and 2013

⁴ Source: Ministry of Transport

have been completed 25 km of railway infrastructure.⁵ In the Pan-European Transport Corridor X, which ought to be the best maintained part of the network, the difference between design and actual speed varies between 15% and 40 %. The speed of trains exceeds 100 km/h on only 3.2% of the lines, and about 50% of rail network allows maximum speed of up to 60 km/h. All railway lines are affected by temporary speed restrictions. In case of absence of regular investment, the analysis of critical links indicates an increase of insufficient capacity to 27% of the total length or railway track (37% of total traffic) till 2027. Knowing that transport should be considered as a system which is dependent on the several aspects, Serbia is keen to develop rail transport infrastructure, improve the interoperability and safety of national networks and to open of the rail transport market to competition. The total costs of railway infrastructure projects suggested for implementation until 2027 are € 7.446 million for investments and maintenance.

Serbia has favourable economic and geographic features for cargo inland waterway transport (IWT). The total length of **Serbian inland waterways**, at the average water level, is about 1,680 km. The Danube River flowing through Serbia allows central Europe's connection to the Black Sea and through Danube-Rhine-Main canal, the North Sea. Normal operating speed on the Danube is given as 8 km/h (for cargo ship) to 14 km/h upstream and 15 to 20km/h of downstream. The maximum draft of the vessels plying the Danube is between 2.5 and 4.5 m, this requires a minimum water depth in the range of 3.2 to 6 meter; the Danube Commission requires a minimum water depth of 2.5m. There have been 18 critical sections limiting the navigation and safety introduced on Serbian part of the Danube⁵, while recent analyses conducted through ongoing IPA project related to preparation project documentation for river training works and dredging the river are showing that there are 24 critical sections. Removal of those critical sections will be done in phases depending on their complexity and readiness of technical documentation. The total costs of inland waterways projects suggested for implementation until 2027 are € 475 million for investments and maintenance. The Republic of Serbia has 10 international ports of which 9 are on the Danube River.

The intermodal transport in Serbia is on very low level of development. There are only three partly developed intermodal terminals in Serbia: the ZIT (Railway Integral Transport) nearby the central railway station in Belgrade, in the port of Belgrade (private ownership), and in the port of Pančevo (private ownership). Common for all three locations is inappropriate terminal infrastructure and rail/road access, old equipment inadequate for ITU, lack of space for spatial expansion, etc. Specific location for a new intermodal railway terminal has been selected according to the EU standard on environmental protection and MCA, near to the Belgrade by-pass and full project documentation prepared with IPA 2008 fund.

Intermodal transport in the Republic of Serbia, as a transport of greater social interest, environmentally accepted, economically justified and safe, requires the support and therefore there is a great importance given in the Strategy of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia 2008-2015 and Law on Spatial Planning 2010-2020 of the Republic of Serbia ("Official Gazette RS", No. 88/10). The total costs of intermodal transport projects suggested for implementation until 2027 are € 136 million for investments and maintenance.

Four **airports** (Belgrade, Niš, Vršac and Bor), are used for commercial purposes. Belgrade Airport "Nikola Tesla" and Niš Airport "Konstantin Veliki", being a part of the Core Regional Transport Network, are used for international flights. In addition, there are 22 more certified airports. Several military airports have good potential for further network development as civil or combination civil-military category airports. The total costs of air transport projects suggested for implementation until 2027 are € 376 million for investments and maintenance.

⁵ General Master Plan for Transport in Serbia

1.1 Infrastructure

Source: Statistical Office of the Republic of Serbia

- **ROADS**

ROADS BY TYPES OF SURFACING AND ECONOMIC IMPORTANCE, 2011¹

	Total	Modern surfacing				Macadam	Earthen	Right-of-way (not finished)	
		All	Asphalt	Concrete	Cubes				
KM	43757	27914	27768	73	73	7505	8151	187	Republic of Serbia
km	5073	4894	4894	-	-	44	14	121	Highways
km	10399	9167	9167	-	-	742	424	66	Regional
km	28285	13853	13707	73	73	6719	7713	-	Local

¹ Including the length of the highway: 595 km.

- **AIR**

PASSENGERS, AIRCRAFTS AND GOODS' TRAFFIC AT NATIONAL AIRPORTS¹⁾, 2011

	Aircrafts taken-off	Passengers traffic, thous.				Cargo traffic, t ²⁾			
		Total	Passengers departed in domestic services	Passengers departed abroad	Passengers arrived from abroad	Total	Cargo in national transport	Cargo dispatched abroad	Cargo arrived from abroad
2011	24859	3150	0	1578	1572	9226	-	4524	4702

¹⁾ Domestic and foreign aircrafts traffic.

²⁾ Commodities and mail sum.

The major domestic airports: Nikola Tesla, Belgrade, Konstantin Veliki, Niš.

- **RAILWAY**

Length of the railway tracks, by speeds permitted, as of 31.12.2011¹⁾

In kilometers

	Total	Speeds not presented	Up to 20 km/h	21-30 km/h	31-40 km/h	41-50 km/h	51-60 km/h	61-70 km/h	71-80 km/h	81-90 km/h	91-100 km/h	101-110 km/h	111-120 km/h	121-130 km/h	Over 130 km/h
Construction length of tracks	3.809	540	138	395	326	546	417	234	480	117	522	-	94	-	-
Effective length of tracks	3.819	...	...	...	...	...	...	...	...	...	...	...	...	...	...

¹⁾ Regarding double gage tracks, where speeds are different by gages, taken is higher speed.

- **INLAND WATERWAY**

LENGTH OF WATERWAYS, 2010

	Length of waterways, km for ships of capacity up to: ¹⁾				
	150 t	400 t	650 t	1500 t	3000 and more t
Dunav	588	588	588	588	588
Sava	211	211	211	211	-
Tisa	164	164	164	164	-
Tamiš	41	3	3	3	-
Begej	77	77	77	31	-
Navigation channel Dunav-Tisa-Dunav	342	321	321	-	-
Bečej – Bogojevo	90	90	90	-	-
Novi Sad – Savino selo	39	39	39	-	-
Vrbas – Bezdan	81	81	81	-	-
Odžaci – Sombor	28	28	28	-	-
Bački Petrovac – Karavukovo	52	52	52	-	-
Prigrevica – Bezdan	31	31	31	-	-
Ruski Krstur – Mali Stapar	17	-	-	-	-

Kosančić – Ruski Krstur	4	-	-	-	-
-------------------------	---	---	---	---	---

¹⁾In normal water level

1.2 Performance

Average number of traction vehicles in traffic was increased by 5.2% compared to 2010, but 17% decreased compared to the Timetable 2010/2011 needs. Compared to the number of vehicles required for the Timetable 2010/2011, 4.1% of freight and 29.3% of passenger cars were lacked.

The average number of wagons in traffic decreased by 12.7% for passenger and 0.9% for freight wagons compared to 2010.

Basic indicators of labor in rail transport (2011):

- In 2011, an overall growth volume increased by 2.8% compared to 2010.
 - 30% more passengers were transported compared to 2010.
- Approximately the same volume of goods were transported compared to 2010.

On mentioned 24 critical sections on the Danube, the fairway parameters are not established in accordance to Danube Commission Recommendations and all obstacles have to be removed. It would improve navigation conditions in terms of safety, speed of navigation, number of convoys and compositions. Works will be done in phases, depending on their complexity and readiness of technical documentation. But, we should mention that not just existence of bottlenecks is responsible for significant slow of development of river transport in the Republic of Serbia, but also lack of funds for regular maintenance, political interest and non adequate administration.

2 MAJOR PROJECTS AND FUNDING

The most important segments of the Trans-European transport network on the territory of the Republic of Serbia are:

1. Corridor X with its branches - Xb (Belgrade-Budapest) and Xc (Nis-Sofia), representing the most significant road and railway route on the territory of the Republic of Serbia. It was established as a part of the South East multimodal axis, linking Austria/Hungary, Slovenia/Croatia, the Republic of Serbia and Bulgaria/Macedonia/Greece. It covers 792 km of roads and 760 km of railway lines in the Republic of Serbia.

2. Corridor VII (the river Danube) connecting Central Europe with the Black Sea via the Republic of Serbia, and it represents a part of the South East multimodal axis.

Road Corridor X and other road infrastructure
Road Corridor X and other road infrastructure

Road Corridor X and other road infrastructure



Development of road infrastructure is carried out in accordance with the National Plan for the development of road and rail infrastructure for the period 2008 - 2012. In October last year, the northern branch of Corridor X is completed (Horgos-Novi Sad-Beska). The highway on the section E 80, from Prosek to the border with Bulgaria will be finished by the end of 2013 and on the section E 75, from Grabovnica to Levosoje, by the end of 2014.

The northern branch of the Corridor X

- The works on the **highway E-75 Horgos - Novi Sad** are finished. Funds were provided from the budget of the Republic of Serbia.
- **The Novi Sad city road by-pass**, 12.5 kilometers long, was opened for transport in December 2010. The works were carried out by domestic firms.
- Works **on the bridge over the Danube at Beska** have been completed. The project was financed by the EBRD loan. The huge bridge at Beska, the total length of over 2 kilometers, stands on 43 pillars, some of which are based on a depth of 36 meters below the riverbed of the Danube. The Beska bridge with its highway access stands out as a special architectural undertaking in Serbia.

Belgrade City By-pass

Works on the **Belgrade city bypass** were opened in 2008. Construction works in the tunnel Straževica are finished, and on the section **Batajnica-Dobanovci** (for the alignment and the loop), and they were awarded to domestic companies. The Belgrade city road by-pass is 47.4 kilometers long.

Rehabilitation of highway E 75 through Belgrade is finished. The works (including a reconstruction of the Gazela Bridge in Belgrade) are financed from EBRD loan, EIB loan and Serbian commercial banks and the Budget of the Republic of Serbia. With this project the biggest bottleneck on the Corridor X is repaired.

The Southern branch of Corridor X

On the **southern branch of the Corridor X** works are in progress on the section Donji Neradovac – Levosoje in length of 8.5 km. Construction works on sections **Grabovnica –**

Grdelica and Vladicin Han – Donji Neradovac started in April 2012, and funds are provided from World Bank loan.

The construction of the section **Crvena Reka – Ciflik** started in October 2011. Construction is financed from EIB and EBRD loans. The works on the section **Prosek – Crvena Reka** started in April 2012, funds are provided from EIB loan. Submission of tenders is published for the construction of section **Ciflik – Pirot (east)**.

Works on section **Pirot - Dimitrovgrad** are performed according to the plan; works are financed from EBRD loan.

In April 2010 works started on Dimitrovgrad City By-pass, and funds are provided from World Bank loan. In October, construction of **two tunnels on Dimitrovgrad City By-pass** started. Funds are provided from World Bank loan.

Other road infrastructure

- Works started on the **“Corridor XI”** (Route 4; SEETO) on the section **Ub-Lajkovac and Vrsac City By-pass** whose first completed section was opened in December 2011. Works on the section **Ljig-Preljine** will start soon, and they are financed from Azerbaijan loan. In the next four years the completion of the highway is planned, from Belgrade to Cacak, which is the part of highway Belgrade-South Adriatic.

In the last three years much attention has been devoted also to the rehabilitation of the local road network in Serbia.

- **Zemun-Borca bridge** across the Danube river in Belgrade area will be 1482 meters long. The cross section of the bridge consists of three car lanes 3.5 meters wide and pedestrian-bicycle paths on both sides. The bridge surface will cover an area of 41,350 square meters. Construction works started in 2011 and it is to be finished in October 2014. The project is being performed by Chinese construction companies. Investor is the Republic of Serbia and the City of Belgrade and it is partially invested by a Chinese loan.

- **Sava bridge** spanning the river Sava at the tip of Ada Ciganlija, the proposed new structure is going to be a single-pylon cable stayed bridge. As the most significant element of the Belgrade Inner City Semi-Ring Road, the new structure will provide increased network capacity, for both local and transit traffic; carries six traffic lanes and a double track light rail line as well as two pedestrian/cycling lanes. With its 207m high pylon and 376m span, the bridge will become a significant landmark of the City of Belgrade and its transportation infrastructure. The whole bridge will be finished in mid 2013. The funds are provided by the City of Belgrade.

Railway Corridor X infrastructure

The following tasks have been done in terms of reconstruction and modernization of railway infrastructure:

- The **section of the railway line Batajnica - Golubinci** in length of 25 km has been completed. This is the first electrified double track section of railway network upgraded to 160 km/h.

- Project documentation for **Gilje – Cuprija section** (including the bridge over the Morava River) and **Cele Kula – Stanicenje** has been completed. The construction is financed from EIB loan. The tender for construction of the bridge over the Morava River is finished and

constructor „Alpina“ has been selected. Construction started in February 2011 – deadline for completion is 18 months.

- The works in the railway station **Belgrade Center** (Prokop) on the reconstruction of station tracks are finished. The works were carried out by local companies.

- A EBRD loan is ratified, of which a part of the loan for the **Project of rehabilitation of main railway lines**, 112 km (section Golubinci - Ruma, Sopot - Kovacevac, Vinarci - Djordjevo, Mala Krsna - Velika Plana, Bujanovac - Bukarevac, Vranjska Banja - Ristovac).

- A contract for a new loan with EBRD is signed for the reconstruction of railway **Beograd-Rakovica-Resnik** and repair and modernization of total 131 km railway on the Corridor X from Belgrade to Nis.

- Framework agreement is signed between Serbian Railways and the Consortium of Czech companies for the implementation of the **Project of modernization and reconstruction of the railway line Nis-Dimitrovgrad**.

- **The Previous Feasibility Study for the reconstruction of the railway line Nis-Presevo** is finished, funded by donations from WBIF program, EU funds. To continue this project, Phase II (step 1), funds are provided.

-**The Technical and financial study of revitalization of Belgrade-Bar** (part of Route 4; SEETO) **railway** is completed. Funds are provided by the Government of Italy, and the remaining assets by Serbia and Montenegro through logistical support. The Study is the base of negotiations with international financial institutions for providing funds for implementation.

-The **Project of construction the Zezelj Bridge across the Danube river in Novi Sad** – The project is being financed by EU funds and Serbian budget. Planned time for completion of the project is November 2013.

Intermodal transport

In the field of intermodal transport, it is intended to increase transport of intermodal units, from 50,000 TEU to 100,000 TEU until 2015.

From European Union IPA 2008 donor fund the project **Facilitating Intermodal Transport in Serbia** is financed (2 million euros). Project is aimed to strengthening of institutions in the area of intermodal transport, determining of a location for construction of a terminal and preparations of tender and project documentations for future – **first modern terminal of intermodal transport in Serbia**. The project was finished in March 2012.

The Corridor VII and the Sava River

The Republic of Serbia has an important position in 36,000 km long European water network with 1,680 km of inland waterways. Unlike other 10 European countries, the Danube is navigable through our country on its whole fairway, which is a quarter of its entire navigable length.

The Republic of Serbia has a great importance in achieving the future goals of Common comprehensive strategy for the Danube basin countries of the EU, which was adopted on 8 December, 2010 by the EC. With its participation in the process of drafting and subsequent implementation of this Strategy, the Republic of Serbia confirms its strategic commitment to full membership in the European Union.

Expected result of established policies on inland waterway transport, which is aimed at increasing the volume of transport on inland waterways, is the increase in annual transport volume - from the current 8 million tons of goods to 12-15 million tons in 2015, or in percentage, from 4.8% to 12%.

Master Plan and Feasibility Study for inland waterway transport in Serbia (2006) and General Transport Master Plan for Serbia (2009) identified four groups of development projects, according to the priority rivers (the Danube, Sava, Tisa and DTD). According to the estimates and on the basis of the reviews of infrastructure and substructure in the ports along the Danube, for their modernization and development, it is needed to invest about 155 million euros. In addition, each year it is needed to invest 2-3 million euros for maintaining, which is not the case at the moment. According to the current state of the ports, and on the basis of certain projects for individual ports, assessment of the required cost is far greater. The estimated costs of training works and dredging in terms of investing in the rehabilitation of the Danube waterway are 55 million euros, while estimated maintenance costs are 770,000 euros.

Currently ongoing projects in the field of inland waterways, funded from EU donations, are: "Implementation of River Information Services (RIS) on the Danube and Sava rivers in Serbia" and "Supervision of Implementation of RIS on the Danube and the Sava in Serbia" (IPA 2007), "Preparation of Documentation for river training and dredging works on selected locations along the Danube River" (IPA 2010, project's value is 2.196.700 euros) and "Survey and removal of unexploded ordinances (UXO) from the Danube, the sector Prahovo, Serbia" (IPA 2010, project's value is 2.696.235 euros) and "The supervision of the survey and removal of UXO from the Danube, Sector Prahovo (IPA 2010, project's value is 788.400 euros).

Infrastructure projects in the field of air transport

Joint Stock Company for air transport "Jat Airways" Belgrade concluded with UniCredit Bank JSC, Belgrade, and the Serbian bank Societe Generale JSC, Belgrade, agreements on long-term loan for revitalization of the airline company. Investments are made in **aircrafts, engines, equipment, spare parts and other fixed assets amounting to 30 million euros**, of which from its own resources more than 7 million euros. With joint efforts of "JAT Tehnika" and "Jat Airways" the result of the investment is upgrading of the entire fleet of "Jat Airways" by the end of the year (except one aircraft), which has not happened in the past 10 years.

Agency For Air Traffic Control – **The construction of new Air Traffic Control Center in Belgrade** is finished. The building of 10,000 square meters has been constructed for 18 months. The most modern systems for air traffic control are put into operations. Move to the new systems has been done in predicted term and without negative consequences on air traffic performance in Europe.

On „Nikola Tesla“ airport the infrastructure works have been of the following: construction of the runway F (TWY F) and improvement of the fire protection system on the main passenger terminal. Four groups of works on modernization of fire protection system have been performed on Terminal 2.

The reform of the maintenance of roads in the Republic of Serbia is ongoing. In this regard The Transport Rehabilitation Project financed by WB aimed at improving the maintenance, rehabilitation and road safety. One of the components was the maintenance of the road network in two districts, Kolubara and Mačva. Performing regular maintenance through public competition and the introduction of payment by the required level of service represented new

concepts for Serbia. The introduction of public bidding and contracting based on the required level of service (Performance based contract) for regular maintenance was a very significant achievement considering that the winter maintenance costs decrease significantly. Also it was decided on the policy of road maintenance in the Public Enterprise "Roads of Serbia" and its implementation began.

Road maintenance policy

In conformity with the Law on Public Roads, the Public Enterprise "Roads of Serbia" is responsible for construction, maintenance, protection, operation, development and management of the state roads category I and II in the Republic of Serbia. The basis of the Road Maintenance Policy in the Republic of Serbia is the following:

- Strategic orientation of the Republic of Serbia in road transport sector towards functional integration into the European road network
- Public Enterprise "Roads of Serbia" should manage the maintenance of the state roads category I and II in accordance with the development policy and the objectives of the Republic of Serbia

This Policy will be implemented through mid-term road development and maintenance programs, as well as through annual work programs, with obeying the Road Development and Maintenance Strategy, which is harmonized with the Strategy for Development of Railway, Road, Water, Air and Intermodal Transport in the Republic of Serbia from year 2008 to 2015.

The objective of road maintenance in the Republic of Serbia is to provide an optimum level of service, along with providing an acceptable level of safety of traffic participants and a minimal negative impact on the environment.

Road Maintenance Policy of the Public Enterprise "Roads of Serbia" aspires to the preservation of the existing roads and the realization of safe and efficient transport of goods and passengers.

The Public Enterprise "Roads of Serbia" will implement road maintenance through the following:

- Harmonization and improvement of legal regulations and technical standards
- Efficient and rational planning of the execution of road maintenance works in accordance with the provided financial resources
- Improvement of management and planning of road maintenance works
- Cooperation with all responsible institutions, authorities and traffic participants
- Reduction of adverse impacts of road maintenance works and road operations on the environment in accordance with the Environmental Policy of the Public Enterprise "Roads of Serbia"
- Improvement of traffic safety in accordance with the Traffic Safety policy of the public Enterprise "roads of Serbia"
- Procurement of goods, works and services based on the principles of market operations, prevention of monopoly, as well as enabling the bidding competition
- Application of severe sanctions for poor-quality execution of contracted obligations
- Improvement of the principle of publicity of operations enabling the participation of all interested parties in the road management process by efficient and good quality two-way information exchange
- Efficient monitoring and comparison of achieved results
- Permanent training and education of professional staff

When appraising the achieved goals, the Public Enterprise "Roads of Serbia" will use the following indicators of the Policy Implementation:

- The number of participations in started initiatives for the harmonization of regulations and technical standards on annual level
- The number of kilometres of roads with recovered carriageways on annual level

- The number of rehabilitated structures on annual level
- The number of realized traffic safety projects on annual level
- The number of realized projects where environmental impact assessment, protection measures and environmental monitoring are included on annual level
- The number of realized projects done in cooperation with other authorized institutions on annual level
- The number of participations in projects initiated by other institutions on annual level
- Version: 2 Date: June 2008
- The number of realized public procurements without any complaints about the procedure in relation to the total number of public procurements on annual level
- The number of sanctions for failure to execute the contracted obligations on annual level
- The number of professional public consultations on annual level
- The number of participants on seminars and other forms of specializations on annual level

On the initiative of the Ministry of Transport and Public Enterprise "Roads of Serbia" as a customer, the Study for the development of a framework and guidelines for the use of public-private partnership (PPP) projects in the financing of road infrastructure was carried out.

This document tends to answer possible models of financing road infrastructure projects. The analysis of the necessary investment and funding imposed a clear dilemma of possibly to attract private capital and achieving partnership with the public sector.

Given the specific context of public-private partnership, the first and most crucial step in the process of nomination and evaluation of projects by public (government) partners, should be the implementation of socio-economic analysis. The reason for this is the fact that the general interest of the public sector to optimize the economic impact on the development of road network in the region and the country as a whole, primarily by investing in economically rational and realistic projects.

For this reason, the first criterion in choosing projects nominated by the public sector is their socio-economic feasibility, cost-effectiveness and feasibility. If the investment potential of public-private partnerships socio-economic is confirmed, the next step should be carrying out financial analysis. Financial analysis deals only with the financial profitability of the project and the specific impact of the scheme on the specific organization, participants in the public-private partnership. The importance of financial analysis and evaluation of the effects of the project from the perspective of different participants in the public-private partnership is important for the following reasons:

1. Proper selection of potential projects attractive to potential private partners, for which the detailed feasibility study will be developed,
2. Assessment of required stimulation by the public sector in order that the potential project is attractive to private sector investment,
3. Evaluation of the effects on the financial flows of the public sector.

During 2011 investments in railway infrastructure were some 24 million euros. By structure: loans (31.6%), railway company funds (50.5%), special purpose funds of the Ministry of transport (1.9%) and other sources. In the next medium-term planning period, a part of infrastructure investment needs is planned to be covered by the bilateral intergovernmental loans in total amount some one billion euros.

In the Republic of Serbia, following the adoption of the Law on Public-Private Partnerships and Concessions ("RS Official Gazette", no. 88/2011) regulates: the terms and manner of drafting, proposing and approving projects of public-private partnership; determines the relevant subjects authorized for proposal and implementation of the public-private partnerships, as well as the rights and obligations of public and private partners; specifies form and content of public-private partnership contracts, with or without elements of the concession (public contracts) and legal protection in the procedures of awarding of the public contracts; provides terms and manner of concession granting, subject of concession, the entities authorized for concessions granting procedure, and the termination of the concession; regulates protection of the rights of the participants in procedures of awarding of the public contracts, establishment, status and authority of the Commission for Public Private Partnership, as well as other issues of importance to public-private partnership, with or without elements of the concession, or for the concession.

Technical maintaining of international, inter-countries and national waterways are financed by the Budget of the Republic of Serbia and other sources in line with National Law, such as project documentations and works on waterways for commercial needs, for a fee, which are income in the Budget of the Republic of Serbia. To improve navigation on the Corridor VII in order to achieve Danube Commission standards, the Republic of Serbia uses EU funds.

3 STRATEGIC PLANS

Sector policy and strategy

The goals of transport policy of the Republic of Serbia were adopted in 2008 and provided in **the Strategy of the Railway, Road, Inland Waterway, Air and Intermodal Transport Development in the Republic of Serbia (2008-2015)** adopted by the Government. This incorporates principles of EU Transport Policy, the requirements of the Stabilisation and Association Agreement (SAA), the Community Strategy Guidelines on Cohesion, the National Plan for Integration with the EU (NPI) and the Multiannual Indicative Financial Framework (MIFF) 2007-2013. The strategy is goal oriented and based on the vision for 2015, taking into account the social development, determination to accession to the European Union, sustainable development of the transport system and stable institutions and introduces the principal goal of reaching the necessary capacity, compatibility and interoperability of Serbian transport with the neighbouring and the EU's transport systems, while ensuring as low as possible adverse environmental impact. The main goals of Serbian transport have been introduced as follows:

1. Purposeful planning and transport flows management;
2. Reduction of harmful effects of transport on the environment;
3. Increase of traffic safety;
4. Increase of transport system efficiency;
5. Compensation of the consequences of market deregulation and liberalization in the transport sector.

In the medium term, Serbia expects to satisfy demand for a fast and quality transportation with a decreased impact on the environment. Based on the overall strategic framework and the current situation in the sector, the following **mid-term priorities** have been identified:

• Increase the effectiveness of all transport modes and the transport system as a whole

Transport competitiveness is deeply connected with the effectiveness of the whole system and with the efficiency of services provided. Serbian transport, represented by all transport modes, including intermodal transport, needs to establish common goals, based on the analysis of the effectiveness and efficiency of individual modes and considering their advantages to the competitiveness of transport, to provide the choice and offer of optimised transport options to users. This means implementing a purposeful planning and results-approached management, transport flows management, transport network development, increase in safety and efficiency, fair determination of prices, environmental protection, social responsibility, and strengthening of the internal market and the market external dimension (transit and export of transport services).

• Improve the capacity and quality of transport infrastructure and services within the Pan-European Transport Corridors and the South East Europe Core Regional Transport Network

The quality, effectiveness and efficiency of transport services depend on the capacity and quality of transport infrastructure. A developed transport network together with the management of traffic flows are the basic conditions for providing a fast, safe and efficient transport service. The demand for transport services within the country, as well as for transit, is growing. Serbia needs to complete and further develop its transport infrastructure of national, pan-European and regional importance, and to increase the capacity and quality of the main road, railway and inland waterways routes, to avoid the current and expected future bottlenecks and limitations.

• Strengthen and gradually liberalise transport market

The process of integration of Serbia with the European Union brings very specific requirements for the gradual liberalisation of the transport market. There has been done some progress in the previous period in the adoption of the *acquis communautaire*, and the process of harmonisation of the national legislation with the *acquis* continues, but in general, Serbia complies very slowly with the obligations arising in this area. The lack of administrative capacity and of necessary skills in implementation of legislation into daily practice is often the reason for this situation. Administrative capacity needs to be strengthened for the implementation of adopted legislation.

Regarding social development the following specific objectives are set in relation to the national Transport sector **(MIPD for 2011-2013)**:

- To develop the capacities of the national administration to adopt and implement the EU *acquis*, in particular with regard to the restructuring and market opening of the rail transport sector;
- To support modernisation of the transport system within the Pan-European Corridor X;
- To improve conditions for navigation on the Danube (Pan-European Corridor VII), in line with EU Danube strategy;
- To improve road safety;
- To prepare viable projects for investment;
- To strengthen regional cooperation and implement the commitments made in the framework of regional transport initiatives.

Future challenges

Serbian transport is yet not ready to satisfy existing and forecast growing demand for transport services, and hence, transport development is considered important and supported by the Government. The capacity of transport infrastructure and quality of transport services are still unsatisfactory and far below EU standards. This is mainly because of a deficit of continuing financing, lack of interoperability and coordination between transport modes and also due to the lack of capacity and managerial skills within transport institutions. The General Master Plan for Transport in Serbia, adopted by the National Council for Infrastructure in June 2010, estimates the total **cost of public investment** required for transport infrastructure development in 2010-2027 at €15 billion. This presents not only a huge challenge for financing, but also for preparing civil engineering projects with all the requisite designs, feasibility studies, cost-benefit analysis, environmental impact assessments, land requirements, permits and other documentation. A maintenance backlog of the inland waterways and related infrastructure started in 1990. In the next 10 years, about €290 million is required for rehabilitation and maintenance of the system. An additional €220 million is required for intermodal transport development to improve inland waterways transportation competitiveness.

The needs and challenges facing Serbia in strengthening and improving its competitiveness, together with the adoption and implementation of legislation required for integration with the European Union, will strongly influence further development of the transport sector. In the coming mid-term period, Serbia needs to complete its **transport networks** to the forecast capacity and quality and reach European standards in transport services. This vision requires not only investment in infrastructure completion and its further development, but also improvements in transport *acquis* adoption, strategic and operational planning, effective management, absorption capacity and efficient use of financial resources, and in *acquis* implementation.

3.1 Long Term

The following table summarizes the investment and maintenance costs for all projects in all of the transport modes till 2027 (General Master Plan for Transport in Serbia).

Project	Type of project	Package/Project	Financial Costs (Euro M)	
			Invest.	Yearly Maintenance
RAILWAYS				
Stara Pazova - Sid	Upgrading 160 Km/h & ERTMS	RLB8	223	5.6
Velika Plana - Stalac	Upgrading 160 Km/h & ERTMS	RLB927	228	2.8
Dunis - Trupale (Nis)	Upgrading 160 Km/h & ERTMS	RLB928	104	2.1
Stara Pazova - Subotica	Double track 160 Km/h & ERTMS	RLC13	583	9.2
Resnik -Mali Pozrevac - Velika Plana	Double track 160 Km/h & ERTMS	RLC14	380	4.6
Stalac - Djunis	New double track	RLC15	131	0.9

	160 Km/h & ERTMS			
Nis - Presevo	Double track 160 Km/h & ERTMS	RLC16	659	8.7
Nis - Dimitrovgrad	Double track 160 Km/h & ERTMS	RLC17	459	5.3
Resnik - Madenovac - Velika plana	Double track 160 Km/h & ERTMS	RLC29	376	3.9
Regional Lines	Rehabilitation design speed	RLD19	1042	44.7
Valjevo - Loznica	New single track 120 Km/h	RLD20	220	3.3
Belgrade - Vrbnica (Bar)	Upgrading single track 120 Km/h	RLE22	448	9.2
Belgrade- Airport-Batajnica	New double track 160 Km/h & ERTMS	RLE23	254	1.1
Belgrade - Vrsac	Upgrading single track 120 Km/h	RLE25	125	3.3

ROADS

Horgos - Novi Sad	Additional carriageway, keep existing road	RDA1	230	3.1
Kelebija - Subotica (south)	New motorway, partially keep existing road	RDA2	120	1.1
Grabovnica - FYRM	Additional carriageway (52km new), keep existing road	RDA3	605	4.2
Nis - Dimitrovgrad (prosek)	New motorway, keep existing road	RDA4	650	3.2
Kragujevac - Batocina	Additional carriageway, keep existing road	RDA5	75	0.7
Beograd - Pozega	New motorway, keep existing road	RDB6	850	5.8
Pozega - Uzice - Kotroman	New motorway, keep existing road	RDB9	480	2.4
Novi Sad - Ruma - Sabac - Loznica	New two lanes road, keep existing road	RDB12	200	2.4
Beograd - Pancevo - Vrsac	New motorway, keep existing road	RDC7	270	3.1
Pojate - Preljina	New motorway, keep existing	RDC8	413	4.2

	road			
Pozega - Montenegro border	New motorway, keep existing road	RDC11	2000	4.6
Bulgarian border-Zajecar-Paracin	New motorway, keep existing road	RDC10	665	3.6
Banatska Magistrala	New two lanes road, keep existing road	RDC13	220	4.3

IWW

River Danube	Dredging and other works	IWD	241	2.2
River Tisa	Dredging and other works	IWT	36	1.0
River Sava	Dredging and other works	IWS	20	2.0
Danube-Tisa Channel System	Dredging and other works	IWC	46	0.7

AIR

Belgrade and Nis Airports	Various investments	AIR	22	0.1
---------------------------	---------------------	-----	----	-----

INTERMODAL

Dry Port in Belgrade	New Dry Port near Marshalling Yard	INTER	69	1.0
----------------------	------------------------------------	-------	----	-----

3.2 Mid Term

Negotiations for providing funds for **intermodal terminal construction** through donation of European Union annual program IPA 2013 are in progress. The terminal has been designed to serve the 7-12 pairs of containerships trains per week i.e. over 1,000 per year. The Intermodal terminal can meet the annual capacity of about 80 000 TEU. It will have the opportunity for physical/phase expansion and to meet the annual capacity of 240,000 TEU, and development of the logistics center nearby, on an area of 80 ha, is planned.

The overall objective of the project is to contribute to the long-term sustainable development of the logistics infrastructure and multimodal transport in Serbia by creating a facility that would be the necessary original infrastructure to allow development of intermodal transport.

River training works and dredging of the riverbed on selected critical sections and development and instalment of the monitoring system for marking system on the Danube – the infrastructure project proposal within IPA2013, EU annual programme. Complete project documentation will be provided by ongoing IPA 2010 project titled "Preparation of Documentation for River Training and Dredging Works on Selected Locations along the Danube River" by April 2013.

Preliminary design has been made for the section from **Stara Pazova to Novi Sad** for the **rehabilitation of current** and **construction of the second track** for which EIB is interested in financing.

Reconstruction 200 km of the railway Belgrade-Bar, renewal of 6 sections on the Corridor X total length 111 km, Construction of the railway Valjevo-Loznica, construction of the second track Pancevo-Belgrade - The negotiations with Russian Federation about the loan are in progress.

4 ASSESSMENT METHODOLOGY

The Government of Serbia is firmly committed to ensure development of the transport infrastructure and to create effective and interoperable transport system in pursuit of its national policy objectives and reform agenda, and the path to European integration and accession to the EU. Transport sector development is strongly cost-benefit driven. The needs for international assistance of the Transport sector for 2011-2013 have been fully articulated by the Sector Working Group for Transport, and described in the "Needs of the Republic of Serbia for International Assistance 2011-2013 (NAD)", adopted by the Government in February 2011. Apart from the consultations with relevant national institutions, the process of drafting the sector chapters of the NAD included consultations with representatives of civil society organizations (CSOs), the donor community and local self-government. Strategic approach to the programming process has been improved through more systematic approach in identification of the priority needs and earlier involvement of all relevant stakeholders in programming process, including civil society organisations.

The strategic (or gap) analysis has been conducted through a range of actions including analysis of the correlation between the NAD 2011-2013, the MIPD 2011-2013, the analysis of EC Opinion on Serbia (Analytic Report) 2011 and correlation with on-going and proposed assistance/projects. Analysis has been carried out through the framework of Sector Working Groups (SWG) that have discussed the key messages derived from the abovementioned strategic documents. On the basis of this cross-checking strategic analysis, SWGs during the consultation process have identified a number of priority areas for this sector.

Regarding support EIB and WBIF at the end of February this year was signed Contract for services between the Ministry and Italferr for the Technical assistance to the rail infrastructure (Master plan for railway) with total amount of 800,000 euros. The overall objective of the project is to prepare the investment plan for the railway sector in Serbia during the period 2012-2021 and to provide institution building support within the Ministry of Transport and Serbian Railways JSC for investment planning. Also results of the Master Plan for railways will be good base for negotiation between the Ministry, Serbian Railways and IFIs. The project lasts until June 2013.

Manual - Cost Benefit Analysis

The main objective of this Manual is to provide the Public Enterprise Roads of Serbia (PERS) and all other organisations with a guideline on how to conduct and present Cost Benefit Analyses (CBAs) of road transport projects according to the principles and rules established by international organisations, such as the European Commission and International Financial Institutions (IFIs). This will offer a more solid ground for the investment decision-making process in the Serbian road transport infrastructure sector. It will also help interested parties to access internationally available financial funds.

This CBA Manual provides an overview of the main CBA steps, i.e. an outline on how to structure a CBA for a road infrastructure project. At the same time, this manual proposes values to be included in CBA projects in Serbia, mostly based on values established during the implementation of the General Transport Master Plan (GTMP) for Serbia (2009). This way, it

fills the gap between the existing theoretical guidelines and Serbian road sector reality. An essential element is that the CBA Manual will be institutionalised; a follow-up project has been defined for this. In this follow-up project relevant stakeholders will be included in order to define a process to assess infrastructure projects.