

On the basis of Article 45, paragraph 1 of the Law on Government, ("Official Gazette RS", No. 55/05, 71/05 – rectification and 101/07),

the Government adopts

**STRATEGY
OF RAILWAY, ROAD, INLAND WATERWAY, AIR AND INTERMODAL TRANSPORT
DEVELOPMENT IN THE REPUBLIC OF SERBIA, 2008 - 2015**

I. INTRODUCTION

Strategy of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia from 2008 until 2015 (hereinafter: Strategy) identifies the condition in the transport sector, puts forward a concept of the development of infrastructure and transport, defines goals and objectives of transport system development and Action Plan for their implementation, bearing in mind a need for a sustainable development of the transport in the Republic of Serbia. Guidelines for such development have been drawn up

on the level of the whole system and are based on safety and intermodality principles, the application of new technologies, complementary use of all transport modes and, above all, on the rational exploitation of available capacities and resources in the country, to the benefit of all inhabitants of the Republic of Serbia.

This 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.

When considering the importance of the transport sector in any country, two dominant aspects are observed: the quality of life and overall economic development. Transport has direct influence on individual mobility and accessibility of closer and more remote areas, but, due to its significant impact on the rational use of time, it influences the quality of life in a broader sense. The Strategy may define the influence of transport on life quality and economic development, both regarding the individual and the society as a whole.

Better transport and infrastructure level of equipment of the Republic of Serbia makes it possible for more goods and services to be produced, spent and exported, increasing general welfare.

Transport infrastructure may be perceived as an instrument for even regional development, strengthening the territorial integrity and preserving cohesion of a country.

Directed investments may contribute to more even distribution of GDP per inhabitant. When planning, one should bear in mind that the economy in different regions has different structure and that some of them are more dependent on the transport than others.

In order to have positive influence on the economic development, the transport system must reach a certain level of development. The current condition of the system can be explained by the consequences of the economic decline in the period 1990-2000 and the slow recovery. In order to reach the level of development of the EU candidate countries and EU members, it is necessary to reach the level of development comparable with the countries. The Strategy defines the steps on this path and identifies priorities.

Phases of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia are: restoration, reconstruction and modernization and construction. The speed of the realization of these measures varies, differs on transport modes and depends on political interests of the European Union and other members of the international community, International financing institutions, on financial capability of the state as well of the development of the political situation in the Republic of Serbia.

In the restoration phase the aim is to bring the transport system into the projected condition, as a basis for further investments. After this phase, all parts of the territory of the Republic of Serbia will be accessible for transport, damage to the infrastructure will be fully eliminated and the basic level of service will be provided on the networks of all transport modes. This phase will be financed with the support of long-term loans from International financing institutions, grants and from domestic sources.

In the reconstruction phase the aim is to reach the level which is comparable and compatible with the one in the European Union member states, for the purpose of equalizing the characteristics of transport infrastructure and flows.

Identified bottlenecks in the Republic of Serbia will be eliminated. Border crossings and procedures will fulfill international standards. The phase will be financed by loans of International financing institutions, European Union funds and from domestic sources.

In the phase of modernization and construction the aim is that the transport system of the Republic of Serbia is compatible with the transport system in the European Union with a tendency towards further modernization. After completing this phase, the Republic of Serbia will be ready to sustain most European Union standards in the transport sector, transport chains on a high level will be provided, and the transport market in the Republic of Serbia will be competitive. Financing the phase will be provided from European Union funds, International financing institutions loans, local funds, Public Private Partnerships etc.

Rational and consistent policies of development of certain transport modes will contribute to the economic prosperity and will enable efficient use of means from the budget of the Republic of Serbia and they will provide the increase of traffic safety and the instruments for efficient infrastructure management.

Since public investments and investments into transport infrastructure significantly affect the environment, parts of the Strategy for certain transport modes anticipate the measures of environmental protection and sustainable development and provide their implementation.

The approach to transport in the Strategy is based on the following principles:

1. the transport strategy must focus on providing life quality, environment protection, welfare and mobility of the individual;
2. active approach to transport affects transport system development and does not respond only to demand by adapting to events. A successful and active transport strategy offers interrelated solutions for all modes of transport;
3. transport strategy takes care of long term objectives of the country and harmonizes them with the goals of the individuals;
4. transport strategy is active in the areas where safety, population health or environment protection are jeopardized by uncontrolled transport system growth.

The Strategy has the following functions:

1. it gives the guidelines for decision making in the transport sector and the planning document which comprises operation of all modes of transport;
2. it is the source of information on condition, problems, scenarios, general goals, goals according to transport modes and certain measures in the transport sector;
3. it channels and gives information to economy and interested citizens;
4. it lays down guidelines for making decisions to all public administration bodies and bodies on local level.

The basic concept of the Strategy has been determined by a long term goal - membership in the European Union, which Serbia has set as its strategic and national goal. It is necessary for the Republic of Serbia to define its European position; to create and implement the transport policy which will use its opportunities and concentrate on its strengths; the Republic of Serbia has to determine its position towards neighbors; and draw transport policies versus each neighboring country.

When creating the long-term strategy of transport network development it is important to be objective in differentiating the goals of the Republic of Serbia and the region of South East Europe, so that their interests would be harmonized to their mutual benefit.

The strategy and policy of transport sector development in the Republic of Serbia until 2010, adopted by the Government in 1998, set a framework for all relevant issues, mostly in accordance with the approach of the European Union at that time, as well as with the approach of other relevant bodies but the framework is too ambitious and has been outdated by the development of the situation and is therefore impossible to apply due to political and economic changes in the country and the environment.

Documents which establish the framework for the Strategy drawing up are the following:

1. Law on Spatial Plan of the Republic of Serbia ("Official Gazette RS", no. 13/96), contains a chapter "Transport and Communications". Even though the recommendations of this Spatial Plan look unrealistic in the current economic and political climate, general guidelines, particularly those which consider corridors and intermodal transport nodes, still remain and could be applied in the future;

2. The Regional Infrastructure Project of the Balkans (REBIS Transport) from 2003;
3. The National Strategy of the Republic of Serbia for Accession to the European Union, June 2005;
4. Strategy of the Regional Development of the Republic of Serbia for the period from 2007 to 2012 (“Official Gazette RS”, no. 21/07);
5. Strategy of Integrated Border-Crossing Management in the Republic of Serbia (“Official Gazette RS”, no. 11/06);
6. The Strategy of encouraging and developing foreign investments (“Official Gazette RS”, no. 22/06);
7. Strategy that regulates economic development of the Republic of Serbia;
8. Strategy for Poverty Reduction in the Republic of Serbia.

Other papers dealing with the railway, road, inland waterway, air and intermodal transport strategy in the Republic of Serbia are specifically and segment oriented to specific transport modes assuming their own development scenarios for individual subjects of transport sector for different planning periods.

Strategic goals of the railway, road, inland waterway, air and intermodal transport development are in the Addendum 1, Action Plan – goals, activities and activity holders of the execution of the Strategy of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia from 2008 to 2015, which is printed together with the Strategy and makes its constituent part.

The abbreviations that are used in the Strategy paper have the following meaning:

AGC	European Agreement on Main International Railway Lines;
AGN	European Agreement on Main Inland Waterways of International Importance;
AGR	European Agreement on Main International Traffic Arteries;
AGTC	European Agreement on Important International Combined Transport Lines and Related Installations;
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road;
ADN	European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways;
GDP	gross domestic product;
DTD	Danube Tisa Danube Canal;
ITF	International Transport Forum – earlier CEMT);
EU	European Union;
EK	European Commission;
EIB	European Investment Bank;
EAR	European Agency for Reconstruction;
EBRD	European Bank for Reconstruction and Development;
ECAC	European Civil Aviation Conference;
EASA	The European Aviation Safety Agency;
EURO RAP	The European Road Assessment Programme;

EUROCONTROL	European organization for air navigation safety;
HLG	High Level Group for the extension of the major Trans-European transport axes to the neighboring countries and regions;
IPA	Instrument for Pre-accession Assistance;
ICAO	International Civil Aviation Organization;
ITS	Intelligent Transport Systems;
JAA	Joint Aviation Authorities;
MAP	Multi-Annual Plan for the development of the Core Network;
IFI	International Financing Institutions;
PPP	Public Private Partnership;
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail;
REBIS	Regional Balkans Infrastructure Study-Transport Final Report;
RO-RO	transport of the road vehicle, railway wagon or intermodal transport units by boat;
FTC	Freight transportation centre;
SEETO	South East Europe Transport Observatory;
TEU	Twenty-foot equivalent units;
TEN-T	Trans-European Transport Network;
IWW	inland waterways;
IWT	inland waterway transport;
UIC	International Union of Railways;
UIC C	Vehicle cargo gauge that allows transportation of road freight vehicles, road semi-trailers and great containers with specific railway wagons;
FIDIC	The International Federation of Consulting Engineers;
HUCKE-PACK	combined railway and road transport;
CARDS	EU assistance program;
CEE	Central and Eastern Europe;
CER/GRB/CCFE	Community of European Railways;
WB	World Bank.

II. OVERVIEW OF THE CIRCUMSTANCES IN RAILWAY, ROAD, INLAND WATERWAY, AIR AND INTERMODAL TRANSPORT IN THE REPUBLIC OF SERBIA

1. Economic background

When defining the strategic framework and the goals of railway, road, inland waterway, air and intermodal transport development, the starting points must be the estimate of the current conditions, functional capability to reach the set economic goals and the coordination with developing strategies of other countries and integrations.

2. External environment

Within the international context there is a broad strategic and institutional framework which has to be adhered to during the preparation of the national strategy of railway, road, inland waterway,

air and intermodal transport. The most important arguments of this framework for the Republic of Serbia are:

1. The White Paper of the European Commission “European Transport Policy for 2010: time for decisions”;
2. The ECMT decisions on Pan-European corridors and areas;
3. The HLG Final Report, November 2005;
4. The EK Aid Program on preparation of study and project documentation (EAR);
5. The activities of the European Agency for Reconstruction;
6. The support of international financing institutions (EIB, EBRD, WB);
7. The REBIS study;
8. The SEETO Multiannual Plan.

The White Paper "The European transport policy for 2010: time for decisions", establishes common EU transport policy goals, based on the systemic plan, considering intermodality. Basically it says about the development of Trans-European network, fair determination of prices in transport, environment protection, traffic safety, social responsibility, strengthening of the internal market and strengthening of the external dimension of the market (transit and export of transport services).

The Pan-European corridors and areas are defined during two Ministerial conferences (ECMT in Crete in 1994 and in Helsinki in 1997). The aim of HLG, which was established in 2004, was to identify a sub-set of networks that best connect the EU (TEN network) with its neighbors and strengthen regional integration in the long term. The most important segments of the Trans-European network on the territory of the Republic of Serbia are:

1. Corridor X with its branches Xb (Belgrade-Budapest) and Xc, (Nis-Sofia), which is the most significant road and railway route in the Republic of Serbia. It is defined as the part of South East multimodal axis in the HLG Final Report and a part the Core Regional Transport Network (hereinafter: Core Network), and it connects Austria/Hungary, Slovenia/Croatia, the Republic of Serbia and Bulgaria/Macedonia/Greece. On this Corridor in the Republic of Serbia, there are 792 km of roads and 760 km of railway lines;
2. Corridor VII (the Danube River) which connects Central Europe through the Republic of Serbia with the Black Sea, and a part of the South East multimodal axis. It is a border river and on its watercourse through the Republic of Serbia has the length of almost 600 km.

The HLG Final Report from November 2005, defines the European priority projects on Pan-European Corridors VII and X regarding extension of TEN-T to the neighboring countries and regions. The report also treats so called “horizontal issues”: intermodality, interoperability, safety and security in transport and infrastructure, removal of non-physical barriers and traffic management.

The European Commission, within the CARDS program, and International Financing Institutions EIB, (EBRD and WB support major investment projects in the Republic of Serbia, oriented towards urgent programs for infrastructure maintenance, construction and reconstruction and

institutional capacity building projects. This support, above all for infrastructure projects along European corridors, is expected to continue in the several following years.

IPA the new Instrument for Pre-accession Assistance was established in 2005, according to the Council Regulation (EC) No 1085/2006 of 17 July, 2006 establishing an Instrument for Pre-Accession Assistance (IPA). Priorities and financial resources for implementation of the projects are defined in the Multi-annual Indicative Planning Document (MIPD) prepared by the EK in consultations with the National IPA Coordinator and interested ministries.

IPA is intended exclusively for the needs of the process of stabilization and accession to EU and in the Republic of Serbia it has substituted CARDS program. An amount of EUR 186.7 million is intended for projects in the Republic of Serbia in 2007.

The REBIS project, was financed by EK through CARDS and completed in July 2003, covers Albania, Bosnia and Herzegovina, Montenegro, FYRO Macedonia, Croatia, and Serbia including UNMIK (UNSCR 1244). The final REBIS study report focused on the multi-modal Core Network, similar to the Trans-European network of the European Union.

SEETO was founded as a part of EU 2003 Regional CARDS program that includes Albania, Bosnia and Herzegovina, Montenegro, FYRO Macedonia, Croatia, Serbia including UNMIK Kosovo (UNSCR 1244) and one of the main tasks is preparation of MAP. Up to now MAP 2006-2010 and MAP 2007-2011 were adopted and MAP 2008-2012 is being prepared.

3. Influence of the environment

The Republic of Serbia is encircled by the Pan-European corridors and their branches: Budapest-Arad-Craiova-Sofia-Thessaloniki (Corridor IV); Arad-Bucharest-Constance (Corridor IVa branch); Budapest-Šamac-Sarajevo-Ploče (Corridor Vc branch); Valona-Tirana-Skopje-Sofia (Corridor VIII). In the proximity of the Republic of Serbia there is also Adriatic motorway which will connect Va and Vc Corridor branches along the Adriatic coast (Rijeka-Ploče), through Montenegro with Corridor VIII in Valona.

The mentioned corridors are being constructed hastily, especially after the accession of Bulgaria and Romania to EU. On the eastern border of the Republic of Serbia, Corridor IV is being constructed, on the west Corridor Vc, on the south Corridor VIII and on the southwest the Adriatic motorway. In the context, the traffic volume on the Corridor X can stagnate and even diminish.

International transit through the Republic of Serbia did not return on Corridor X after 2000, as it was expected, since transit flows of passengers and cargo were directed to other routes and/or modes of transport back in 1990's, discouraged by a large number of border crossings, length and conditions of checking, unpredictable events etc.

The introduction of the visa regime (new member states - Hungary, Rumania, Bulgaria), border crossing and customs formalities and intensive development of certain sections of highways

network in South-East Europe objectively reduce the prospects of attracting more intensive transit flows to the road sections through the Republic of Serbia in the immediate future.

The highway route through North Greece (Via Egnatia) should be particularly taken into account, since it attracts the flows from the Near East, Turkey, Bulgaria and Macedonia to ferries across the Adriatic Sea to Italy, a more rational and more favorable connection with West Europe, completely altering the overall picture of the transport flows in the region.

On the territory of the Republic of Serbia the demand on the routes N-E - S-W (Ukraine-Romania-Italy) and East-West (Bulgaria-Bosnia and Herzegovina) will rise, which will be the result of both domestic and new transit flows.

Having in mind that in 2000 the basic political reason for the traffic isolation of the Republic of Serbia vanished, there are serious arguments that the route Timisoara-Belgrade-Podgorica-Bar-Bari should get the status of the branch of Corridor V and that the route through the valley of Zapadna Morava should become part of the Core Network.

Corridor X has relatively higher importance as a transit route than as an axis of spatial development of the Republic of Serbia, since very significant concentrations of population and activities are outside its immediate area of influence, first of all in west of the Republic of Serbia and in the valley of Zapadna Morava.

On the other hand, some other transport routes in the country have very intensive traffic today, with significant growth rate (the internal above all, without a role of transit transport- e.g. routes Beograd-Čačak and Pojate-Kruševac-Kragujevac-Čačak-Požega). Therefore, it is necessary to take into serious consideration other possible strategic road routes, which, on one side, are connected with the road routes in Bosnia and Herzegovina and Montenegro, and on the other, with Rumania and Bulgaria.

4. Transport sector in the Republic of Serbia

4.1. Road transport

With the total road length of about 38,000 km, the road network in the Republic of Serbia is well-developed, although its quality is reduced due to insufficient investments and inadequate maintenance in the period 1990-2000. On the territory of the Republic of Serbia there are about 792 km of roads of Corridor X and its branches Xb and Xc.

The rehabilitation of roads started in 2001 and it is estimated that the additional EUR 600 million is needed for the initiated network reconstruction. About EUR 6.2 billion will be required for the rehabilitation and maintenance of state and regional road network in the next ten years.

Insufficient funds for modernization and maintenance of the road network and obsolete vehicle fleet significantly reduced the safety aspects of road traffic. With the motorization rate in the Republic of Serbia of about 224 vehicles per 1000 inhabitants (2005), the number of fatalities is more than five per 10,000 registered vehicles, which is almost five times more than in the EU

traffic safest countries. In 2006 in the Republic of Serbia, in traffic accidents, there were 900 casualties, and 18,407 were badly or slightly hurt, and since 1990 in the Republic of Serbia 18,000 people were killed and more than 266,000 people were badly or slightly hurt. Therefore, the safety level on the roads in the Republic of Serbia cannot be considered satisfactory.

Road transport in the Republic of Serbia represents a dynamic and dominant mode of transport, with the share of about 80% in the total freight transport, i.e. of about 74% in total passenger transport. Economic entities that perform road transport were previously in social ownership, are now mostly privatized and operate in the conditions of free competence, and the role of state entities is limited to regulation of the sphere regarding issuance of licenses, permits for road transport, monitoring etc.

International road transport in the Republic of Serbia, namely the access to international transport market, is generally performed in the quote regime of bilateral and multilateral CEMT permits, which additionally affects the competitiveness of our carriers on the international transport market, when significant administrative and physical obstacles exist (still there is insufficient visa regime for professional drivers, delay on border-crossings etc.).

Road network management is within the competence of the Public Enterprise "Roads of Serbia". The municipal road and street network is within the competence of local self government bodies.

4.2. Urban and suburban public transport

Urban and suburban public passenger transport involves road, railway and inland waterway transport. The regulations on urban and suburban public passenger transport are within the competence of local authorities.

In 2000, in the Republic of Serbia, mobility was about 2-3 times lower than in developed European countries, while 96 % of the passengers and 70% passenger-km were related to daily movements, mainly in urban areas, and only about 4% trips and 30% passenger-km were related to occasional trips.

Public transport of the passengers in urban areas is significantly higher compared to the areas beyond the cities. About two thirds of the trips are made by urban and suburban public transport means, while one third is inter-city trips. More than one third of the population in the Republic of Serbia lives in six major cities, about 95% of the trips are made in those cities. The railways has considerable share in urban and suburban public transport only in Belgrade (Beovoz).

Since 75% of the population is living in cities, transport services and infrastructure in cities need a special attention. International experiences clearly point to the need for participation of local self government units in financing public urban and suburban networks.

4.3. Railway transport

The main railway lines pass through almost all major cities and intersect in the zones of Belgrade and Niš. The total length of the Republic of Serbia railway network is 3,809 km, 1,768 km of which are the main lines and 1,247 km (32.7%) are electrified.

Only 7% of the lines (276 km) are double-tracked. The average network density, satisfactory on the Republic of Serbia level, is very uneven and significantly decreases towards the south of the country.

About 25% of the main tracks on the railway network in the Republic of Serbia are on Corridor X and its branches Xb and Xc.

Only about 45% of the railway lines in the Republic of Serbia have allowed axle load of 22.5 t, while 30% is less than 16 t.

Allowed speed exceeds 100 km/h on only 3.2% of the lines, and major part (about 50%) of the network allows maximum speed of up to 60 km/h. With the exception of the line sections between Belgrade-Šid and Velika Plana-Niš, which are double-track, electrified and in some sections allow greater speeds, all other lines have obsolete technical and technological parameters. Even on these line tracks, there are sections in very bad condition, so that the speed limit is often temporarily set at 20 km/h or less.

Public Enterprise (PE) "Serbian Railways" has about 480 locomotives, 8,500 freight cars and 550 passenger cars. The rolling stock is relatively old and unreliable. The average age of railway cars is over 30 years and the degree of availability, depending on the type, varies between 26% and 61%.

Insufficient investment into basic maintenance on the railways is the result of previous general economy drawback, poor organization, lacking resources, social and personnel policy. The current condition of the railway infrastructure is specified with the need of track reconditioning and modernizing of about 1,000 km of main lines, i.e. about 57% of main routes or 26% of the complete railway network. It is estimated that about EUR 3.9 billion will be needed for the rehabilitation and maintenance of the railway network in the next ten years.

Public railway infrastructure management, public transport of the passengers and goods and the rolling stock maintenance are mainly within the competence of PE "Serbian Railways". At the end of 2000, this company employed almost 33,000 people, whereas by the end of December 2006, the number of employees dropped by over 37%, to about 20,857.

PE Serbian Railways are facing poor infrastructure condition and the lack of modern rolling stock. Rehabilitation and improvement are needed on the whole length of Corridor X, which is the backbone of the system (25% of the network and over 50% of transport activities).

4.3.1. Railway Directorate

Railway Directorate was established as a separate organization to deal with expert, regulatory and other affairs in the sector of railway transport regulated by the Law on Railways (“Official Gazette of RS”, No 18/05).

4.4. Inland waterway transport

The Republic of Serbia has favorable economic and geographic features for cargo inland waterway transport (IWT). The potential (rivers and canals) is significant, but the infrastructure condition is not satisfactory. After 1990, there was a significant maintenance backlog of IWW and related infrastructure.

The basic elements of the inland waterway system on the territory of the Republic of Serbia are the Danube, the Sava and the Tisa, (total length about 960 km), as well as the network of navigable canals within the Hydro-system Danube-Tisa-Danube (HS DTD - 600 km). The total length of inland waterways in the Republic of Serbia, at the average water level, is about 1,680 km.

Regarding the annual transport volume and capacity, the most important ports are: Belgrade, Pančevo, Smederevo and Prahovo. Most of the ports on inland waterways in the Republic of Serbia are connected with main railway lines and roads or are very close, which has strategic and logistic importance. Only ports Belgrade and Pančevo have container terminals, although the container transport volume was very low, while the other ports offer various services and are mostly specialized for general and bulk cargo.

The fleet on IWW in the Republic of Serbia consists of about 450 vessels, mostly obsolete, with the available transport capacity of about 435,000 tons and the total power of 68,000 kW.

In 2000, the overall turnover of the ports was only about 40% of the turnover from 1989. The massive decline in turnover was the result of domestic transport decrease. In 2004, the freight transport in ports increased slightly and reached 8.7 million tons.

It is estimated that about EUR 290 million is needed for the rehabilitation and maintenance of the inland waterways system in the next ten years. The additional EUR 220 million is necessary for the development of intermodal transport.

It is expected that, due to the restoration and increase of production in large industrial plants in the Republic of Serbia (steel works, chemical industry, cement and oil), the inland waterway transport demand will substantially rise because of its comparative advantages.

Passenger transport on inland waterways in the Republic of Serbia is above all of tourist character. The number of passengers - tourists who visit the Republic of Serbia on their river cruises significantly rises every year and will be the foundation for the development of significant economic activity in the field of transport, tourism, trade and other services.

4.5. Air transport

Air transport in the Republic of Serbia is observed in relation to airports, airline companies, Civil Aviation Directorate of the Republic of Serbia and Air Traffic Control Agency.

The volume of operations in air transport in the Republic of Serbia in 2004, was 1,387 billion passenger-km or about 185 passenger-km per person per year. Compared with about 650 passenger-km per person per year in EU-15 it may be concluded that that the growth rate will be high and that the growth per person per year stable.

4.5.1. Airports

In the Republic of Serbia there are about 80 airports, heliostads and airfields registered. 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 Network, are used for international flights and Airport Priština is currently under administration of UNMIK and NATO forces.

“Nikola Tesla” Airport in Belgrade is the biggest airport in the Republic of Serbia, where 75% of passenger and 90% of freight transport is performed. The capacity of the airport is above 5.6 million of passengers a year, and at the moment more than 35% of the capacity is being used. The Republic of Serbia is a founder of “Nikola Tesla” Airport.

In the first six months in 2007, there was a growth of the number of passengers of 13% and of traffic of airplanes of 1% compared to the last year, and services of the airport were used by 1,728,917 passengers and there were 30,538 operations performed.

“Nikola Tesla” Airport is equipped with specific airport equipment and vehicles for loading/unloading and transport manipulations in servicing modern passenger and cargo planes.

In this respect, a new cargo terminal and logistic centre for domestic and international freight transport are expected to be constructed. At the moment the mentioned project is in the phase of initiation of public tender procedure for the selection of the best bidder

Transformation of military purpose is planned for airports Kraljevo-Ladjevci, Batajnica, Užice-Ponikve and Sjenica into civil airports. Feasibility studies regarding the transformation have to include analysis of primary purpose, service area, necessary equipment, as well as financial resources needed for realization of the whole process.

4.5.2. Airline companies

Public Enterprise “JAT Airways” was founded by the Republic of Serbia for performing transport of passengers and freight. PE “JAT Airways” has 16 large operational aircrafts of average age of over 20 years (according to data from August 2007: ten B737-300, one B737-400 and five ATR-72). In 2006, PE “JAT Airways” transported 1,200,000 passengers (20% on the lines to Montenegro and 80% on international lines) and about 4,000 tons of cargo. The

scheduled flights network of PE “JAT Airways” reaches 35 towns with the total of 174 weekly departures in a summer season. The overall degree of use of air fleet capacity in 2006 was about 47%, and of seating capacity 57.1%.

In the Republic of Serbia besides PE “JAT Airways” there are several smaller companies performing charter and cargo transport, as well as air-taxi. In the process of privatization of PE “JAT Airways”, a consultancy firm was selected for preparation and implementation of a privatization strategy for the public enterprise.

4.5.3. Civil Aviation Directorate

Civil Aviation Directorate of the State of Serbia and the State of Montenegro was established in October 2003, in order to provide conditions for unhindered performance of activities needed for execution of rights and duties in the sphere of air transport and application of international standards and recommendations in the sphere. After breakdown of the State Union of Serbia and Montenegro, the Republic of Serbia undertook the establishment rights in the Directorate and the name was changed into Civil Aviation Directorate of the Republic of Serbia.

In 2005 Serbia and Montenegro became a member of EUROCONTROL and JAA. In 2006 Multilateral Agreement on Establishment of European Common Aviation Area and Agreement on certain aspects of air services, so-called Horizontal Agreement were signed.

For the sake of development and safety of air traffic, intensive cooperation is continued with international organizations in the sphere of civil aviation: ICAO, EUROCONTROL, ECAC and JAA.

4.5.4. Air Traffic Services Agency of Serbia and Montenegro

The main task of the Air Traffic Services Agency of Serbia and Montenegro (hereinafter: Agency), as a provider of air traffic services, is management, development and maintenance of the air traffic control system of civil and military aircrafts due to safe, regular and efficient air transport. Within the Agency operational is the Training Center for air traffic controllers and other expert staff for its own needs and other providers' needs. There is also Calibration Service providing services of testing of operational readiness of navigation devices from air.

The Agency offers navigational, meteorological and technical provision of air transport in the air space of the Republic of Serbia, the Republic of Montenegro, 55% of upper air space of Bosnia and Herzegovina, and international waters of southern part of the Adriatic Sea.

Air space in the Republic of Serbia is divided into upper flight information region (UIR) above 8,500 m (FL285), lower flight information region (FIR) below 8,500 m (FL285), as well as terminal (TMA) up to 4,500 m (FL145) and airport zones.

An average route length in the upper air space is 314 km (170NM) and in lower air space is 309 km (1167NM).

In 2006 the Agency made the following results:

- total number of operations was 380,245 flights whereat the average flight length was 289 km (156NM);

- total number of flights above the territory which is under the competence of the Agency was 329.711;

- total number of take-offs and landings on the airports in the Republic of Serbia and the Republic of Montenegro was 50,534 flights with the annual growth trend of 15%.

Joining the system of integrated collection of route charges EUROCONTROL (EUROCONTROL CRCO) together with other 37 European countries, we provided equal and regular charging of executed services.

4.6. Intermodal transport

Besides the fact that in the 1990's the intermodal transport was in standstill, there is partially constructed infrastructure, both on the railways – Railway integral transport, and in ports (ports in Novi Sad, Belgrade, Pančevo and Prahovo) for container trans-shipment. There are significant restrictions at the existing terminals, caused by the current locations, obsolete equipment and available investments for development. Also, often-times defined terminal network and strategic development plans have not be implemented.

Combined road-railway transport on the railways has been gradually rehabilitated in the recent years and is in constant growth. In 2002 it was 15,000 TEU, so that in 2006 it would reach 4-5 container trains daily in transit or about 77,500 TEU; in import and export there was 13,000 TEU and in local transport there was 22,000 TEU. The fact was considerably contributed by the reconstruction of six tunnels and 19 bridges in 2006, on railway line Niš-Dimitrovgrad, by which freight profile of trains UIC C was enabled along the whole railway Corridor X in the Republic of Serbia.

Traffic of intermodal transport units in ports was low in the past years; from the four ports with container terminals in 2003 container traffic was noted only in the port of Belgrade (2200 TEU) and in the port of Dunav Pančevo (550 TEU).

5. Transport market

In 1990's the export and import of goods was considerably reduced, and due to the imposition of political and economic sanctions to FRY, the traditional transit through the Republic of Serbia was almost completely stopped. The isolation of the Republic of Serbia resulted in the drastic fall of transport, especially railway one, which even at the end of 2005 did not exceed a quarter of the traffic in the late 80's. Due to the low level of economic activities, low growth of industrial production in the period 2000-2005 and insufficiently developed internal transport market, the degree of use of available transport capacities is very low.

At the end of 2005, the transport demand in the Republic of Serbia is much lower than in the early 90's. It was growing slowly and at the end of 2005, it was on the level of between 30 and 40% of the demand in the period 1989-1990.

There is significant difference in demand between individual modes of transport.

According to the Statistical yearbook of Serbia for 2006, the railway share in total passenger transport (realized passenger-kilometers) in 2005 was 6.3%, the road share 42.2%, public urban and suburban passenger transport 40.8% and air transport 10.7%. According to the same source, in 2005, transport performance in the local freight transport (in ton-km realized) was 6,832 million ton-km in total, with the railway share of 50.96%, IWT share 23.74% and road share of only 9.95%. The mentioned data do not reveal realistic situation in view of the share of modes on the transport market, because the applied methodology, back in 1980's, does not include privately owned economic subjects in road transport, which make its greatest share.

According to the estimate of the Republic Statistic Bureau the railway share in total passenger transport (realized passenger-kilometers) in 2006, was 9.2%, the road share 73.8%, and air transport 17%. Transport performance in the public urban and suburban passenger transport, in the same year, was 5,456.6 passenger-km. In the total freight transport in 2006, road share was of 80%, the railway share of 11%, and IWT share 4,5%. Transport performance of 13,528 million ton-km in total, with the road share of 48,3%, railway share 31% and IWT of 13% (the estimate method was published in a publication "Study, Analyses, Views" No. 138, Belgrade 1999, Federal Statistic Bureau).

6. Transport demand forecast

The anticipated economic growth changes provide the basis for transport demand forecast. In the period between 2000 and 2005, according to the official statistical data, GDP growth varied between 1.5% (in the year 2003) and 7.1% (in the year 2004), with the average growth of almost 5%. Compared with 2004, the growth in 2005 was 6.5%. This growth also included substantial privatization revenues. In 2006, GDP growth, compared with 2005, was 5.8%. Comparing with the same period last year, in the first half of the year 2007, GDP grew by 8%. The transport sector made the greatest contribution in terms of activity and GDP growth.

Expectations in terms of transport demand increase include faster industrial development (steel, cement, etc.), intensified trade and transit flows, removal of obstacles allowing free navigation, improved capacities of transport facilities along Pan-European corridors VII and X. On the basis of the experience of new EU member states, fast economic development may be expected immediately before and after the accession to the EU. The GDP growth of 5% per annum (or more) is not likely to be maintained for a longer period of time, but will eventually reach economic growth rate of the EU.

On the other hand, the growth may be diminished by negative developments, such as political obstacles on the path to EU membership, lower production growth and consequently lower GDP growth, the issue of repayment of debts, negative population growth, delay in restructuring of large public companies in the sector of transport, higher fuel prices, unemployment etc.

The following should be taken into account regarding the future demand:

1. transport activities and investments in transport system in the Republic of Serbia will follow the GDP growth, with corresponding elasticity;

2. modal split will depend on many factors, above all on the economic development of the country, domestic and regional transport policy, capacities and offered services;
3. forecasts for one mode of transport must consider capacities and services which will be offered by other modes competing for the same transport work;
4. regardless of the results of the forecasts, the container transport growth will be fast, considering international trends;
5. it is assumed that in the Republic of Serbia long-term transport forecasts will be very uncertain, even with the use of the best methods;
6. in order to estimate whether a project will return the investment, risk analysis methods will have to be used;
7. present modal split, which is estimated at about 80-85% for road transport, 10-15% for railway, and about 7% for IWT, will probably continue for some time, at least in the next mid-term period;
8. The existing capacities of transport networks in the Republic of Serbia, with necessary modernization and local improvements, will be sufficient in the next ten-year period (according to REBIS and WB until 2015).

III. BASES FOR STRATEGY IMPLEMENTATION

Realization of strategic goals in the sector of transport cannot be reached only by linear path of activities, and many factors, influencing in parallel and simultaneously, can slow down or speed up the achievement of objectives. These factors may be of national or international origin and can be manifested in different periods and in different ways. Generally speaking, in the strategic approach to transport sector development, it is necessary to make use of the advantages and opportunities being offered, eliminate weaknesses and avoid problems which lie ahead.

1. Transport system development

Attracting international transit flows of freight and passengers represents a framework for shaping the transport system development and setting priorities in strategic planning.

The Spatial Plan of the Republic of Serbia until 2010 provides a legally valid framework for long-term planning. Taking into account the above mentioned, the transport infrastructure promotion must primarily focus on the improvement of the existing networks, the level of safety and services, construction of additional lanes/tracks and by-passes in the context of environmental improvement, relocation of transit flows out of the urban city zones, especially when transporting dangerous cargos, modernization of equipment, reconstruction of crossroads and elimination/rehabilitation of highly risky road sections. Special attention must be paid to transport infrastructure facilities and their protection. These activities should be performed in full cooperation and coordination with state entities, public enterprises, economic entities, entrepreneurs and agencies.

1.1. Attracting international transit flows

Expansion of economy and market is a permanent task of the state, since the interest of the investment of budgetary resources into the transport sector is primarily directed towards such contents that will stimulate:

1. general economic development and direct and/or indirect return of investments as well as long-term sustainability of the investments;
2. the preservation and development of less developed or undeveloped areas of the country.

Good transport integration within the international frameworks will have stimulating effect on the Republic of Serbia economy. In the long-term, transport integration in the international frameworks will increase the budgetary potential of the state for the participation in less profitable transport infrastructure contents. The transport integration will provide more balanced modeling of the national transport network and better transport connections between peripheral and economically less developed regions and more developed regions. Considering the geographical position and the predictable development of economic relations in a broader region, despite the competitive environment, the Republic of Serbia still has the possibilities, by fast and adequate transport policy measures, to provide predispositions for attracting international transit flows.

Integrated environment, based on application of modern information and communications technologies, should provide through transport policy instruments at all levels the widest possible use of modern ITS applications for monitoring relevant transport parameters (flows, speed and density, levels of ecological parameters, meteorological data). It is necessary to establish a center for compiling, processing and distributing relevant data and to standardize application of ITS, information and communications technologies.

Successful implementation of the Strategy of Integrated Border Management and the Action Plan for its execution, at the same time creates a prerequisite for development of economic activities and unhindered cross-border trade and openness of border for efficient flow of passengers and goods in the region.

2. General plan of transport system development

The General plan of transport system development is necessary to be prepared (the whole transport infrastructure), as well as the dynamic program for its implementation, on the basis of the Strategy and development goals of the Republic of Serbia, with the following main contents:

1. general goals (strategic, structural);
2. objectives (legal framework on the European and regional level, on the level of international projects, on the national level, along with the analysis of economic and functional feasibility);
3. basic elements (valorization of the status, maximum traffic capacities and the possibility of use of the existing infrastructure, evaluation of transport demand trends, safety in transport, ecological aspects);

4. proposals (transport network, transport-technical characteristics, investment costs, management and maintenance, financial capabilities and sources, priorities - time schedule);
5. implementation (budgets, action plans, the preparation of project documentation, providing financial resources, regional and inter-state cooperation, coordination of competent sectors, responsibility for program realization).

Financing the transport sector must be carried out by paying attention to the sustainability principle, with stable financial sources.

2.1. Complementary transport strategy

Considering the experiences of developed European countries in the transport sector, the transport development policy in the Republic of Serbia should be in the function of subsidiary goals and it should be based on the analysis of the effectiveness and efficiency of individual sectors. This should provide the choice and offer of optimized transport options, reached through the use of intermodal solutions.

The main points of reference of complementary transport policy can be generalized through:

1. redirecting the demand towards ecologically more acceptable modes of transport
2. application of relevant and the latest technologies;
3. fair infrastructure charges;
4. intermodal cooperation in transport;
5. modification of regulations;
6. flexible determination of transit transport charges;
7. prevention of unnecessary transport;
8. socially and ecologically more acceptable organization of urban and suburban passenger public transport;
9. facilitating the integration of transport networks (solving border crossing issues regarding infrastructure, organization, and border crossing procedures).

In accordance with the assumptions of the EU transport policy, which is set in the White Paper “European Transport Policy for 2010: time for decisions” and the Strategy of sustainable transport development (The ECMT Council, Prague 2000), the main goals of complementary transport policy are:

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.

Although it may seem that some goals are not sensitive to the criteria of satisfying real transport demand, in the long-term they provide optimal integration of the transport sector into the national and international framework of progressive economic development.

In order to achieve the Strategy goals, consistent cooperation between the ministry competent for transport affairs and other bodies and agencies is required, for the purpose of providing efficient implementation of the instruments of the Strategy in the key aspects of regulatory policy, investment policy, tax and price policy, social policy, regional transport planning and management.

On the grounds of expert evaluation of infrastructure capacities and the needs for transport networks development, development plans and activities in the field of transport infrastructure should be based on generating the public demand and a redirection of the demand from one transport mode to another.

The state has to ensure equal conditions for the use of transport infrastructure, restrict uncontrolled development of certain segments and stimulate the competition among transport modes.

Following the strategic goal to improve the position of the Republic of Serbia in the international transport, the Strategy should emphasize the rational and goal oriented stimulation of railway, intermodal and inland waterway transport development on the international corridors. Also, it is necessary to harmonize different modes of transport due to successful intermodality, in order to create a system which will represent a competitive alternative to carriage performed exclusively by road transport.

3. Investment policy

Investment policy and programs of transport infrastructure investments are based on the identification of relevant critical elements of infrastructure management, and the following:

1. definition of distribution of investments into certain modes of transport;
2. definition of the ratio between investment in construction and investment in maintenance of transport infrastructure for each transport mode, especially taking into account reconstructions and routine maintenance backlog;
3. adequate infrastructure charges (institutional and social limitations which obstruct the charging of real expenses);
4. solving the productivity problem (excess of personnel, lack of competitiveness);
5. market and regulatory reform;
6. partnership of the public and private sector;
7. adoption of European norms;
8. methodology of making investment decisions.

Lack of funds requires effective solutions in the transport sector. In order to achieve the objectives as efficiently as possible, cost-benefit analysis and multi-criteria analysis must be used as guiding tools for decisions.

Solutions which use the existing infrastructure most efficiently should be selected to a greater degree. Before new roads/railway lines or reconstructions are proposed, other alternative solutions have to be considered. The planning system should, accordingly, provide coordination of measures in the transport sector. Modification of the organizational structure and system

management may give very good results with relatively low investments. The following sequence of activities should be used as a guideline:

1. definition and implementation of measures which affect transport needs and the choice of the mode of transport;
2. definition and implementation of measures which lead towards more efficient utilization of existing infrastructure network;
3. improvements and minor infrastructure reconstructions;
4. new investments and major infrastructure reconstructions.

The prospects of the whole system have to be the basic principle for the consideration of future activities. Before making a decision on new investments, the solutions using the existing infrastructure should be sought. It is necessary to do the studies of alternative solutions in order to show that the alternatives have been considered and discussed. A planning-analytical system must be developed, which will enable cooperation and evaluation of different types of measures within the transport sector.

The ability of the state to direct investments and transport development goals require the strengthening of intermodality. Having in mind the existing unbalanced modal split, it particularly refers to attaching adequate importance to investments into infrastructure of railway, waterway and intermodal transport.

Establishing equal conditions for infrastructure use requires full engagement of external costs which a certain transport mode incurs in a broader social community.

4. Management of transport infrastructure

Management of transport infrastructure in state ownership must be gradually delegated to autonomous province units and units of local self government. The monitoring and inspection should stay within ministry competent for traffic affairs, and regular and independent financial audit, both of infrastructure managers and of their sub-contractors, must be performed each year. A legal framework must be provided for the transfer of activities of finances, revenues, operations and liability into commercial/private sector. Programs of restructuring of the existing company of state ownership must ensure the separation of the function of infrastructure management from the function of transport operations and the associated services. Infrastructure management also includes the creation of a circle of private providers of infrastructure maintenance services, producing thereby a fair and competitive environment.

Within the space planning process and design of most important transport routes it is important to:

1. determine the actual status of design and planning documentation;
2. provide objective and independent revision of the documentation;
3. undertake feasibility studies according to high international standard;
4. provide transparency of data and access to all documentation.

The participants in the decision making process must be qualified and chosen so that the teams and their organization are tailored to the significance of the subject and plan, the realization efficiency and necessary quality level.

Restructuring, commercialization and privatization of large state economic companies has short-term to long-term priority in transport sector development, together with passing compatible regulations and adopting the efficient organization of management systems on the state level and on lower levels.

Systematic activities of the ministry competent for traffic affairs focused on traffic safety increase should be undertaken in the Republic of Serbia., then prevention activities and coordination of all subjects on the improvement of general traffic safety.

The adoption and implementation of EU regulations, technical norms and standards to be applied in the transport sector of the Republic of Serbia should be an organized and permanent activity.

5. Institutional responsibility

Strategic planning of the transport, as well as modeling and monitoring of the Strategy implementation must be under the exclusive authority of the ministry competent for transport affairs. The ministry competent for transport affairs must be organizationally enabled to assume responsibilities for strategic management and planning.

Internal organization and organizational chart of all working positions within the Ministry should be amended and the work of the Ministry should be adjusted to demands for the Strategy and Action plan realization, and especial care should be taken for transport on the level of the system and proposing guidelines for sectors' operations within the Ministry, which is established for different modes of transport. Such modification of the internal organization in the ministry competent for transport affairs requires the strengthening of staff within the Ministry which must also have a distinct modern analytical and statistical service. Normative, administrative, inspection functions in the transport sector have to be clearly separated.

Besides the ministry competent for transport affairs, in activities that enter the scope of other state bodies (border crossings, safety, ecology, dangerous goods, agriculture and water management etc) the institutional responsibility is shared among other ministries, regional and local authorities.

It is also necessary to develop international and inter-sector cooperation which comprises customs, police, inspection services, environment protection, as well use of water and control of torrents and floods. The ministry competent for transport affairs should have a leading role in organizing this cooperation and it should initiate undertaking appropriate Government measures related to other institutions as well.

The Republic of Serbia must stimulate the improvement of international relations and cooperation, especially the relations with international associations in the sphere of transport

through scientific, expert, economic and diplomatic missions More serious participation in international projects for transport development on all levels should be fulfilled.

6. Special goals of the Strategy

Special goals of the Strategy do not always reflect, or even do not meet, the criteria of strategic and development planning of the transport system and its direct economic efficiency, but contribute to overall national interests, strategy and policies on a higher level. In the first place this refers to combined instruments acting in the sphere of protection of national safety, development of peripheral, border and rural areas, to the mobilization and coordinated inter-sector activities in case of natural disasters, synchronized measures of stimulation of economic and demographic growth of specific areas, more efficient fulfillment of the needs of specific population groups (children, the young, the old or persons with specific needs) and provision of more efficient system of medical help to the injured in different modes of transport.

The objective investment policy on the whole transport network, with the aim to balance the economic development of all regions of the country, should be promoted. The requirements for specific forms of the transport system for the needs of the national parks, protected and tourist areas, appear as special goals.

The important segment of special goals is timely consideration and preparation for quick application and implementation of traffic and transport plans for emergency situations (natural disasters, catastrophes, wars, terrorist acts). Some of budgetary resources could be spared by cooperation and rational use of infrastructural, technical and human resources of the Serbian Armed Forces for the needs of civil and military transport system.

IV. VISION OF THE TRANSPORT SYSTEM IN THE REPUBLIC OF SERBIA IN 2015

ASPECT OF SOCIAL DEVELOPMENT: Transport system in the Republic of Serbia is developed according to the needs of the country so that every necessary transport mode can reach every community of the country in an adequate, safe, reliable, efficient manner at all times of the year.

ASPECT OF SERBIA'S INTENTIONS OF ADMISSION TO THE EU: Transport system in the Republic of Serbia is market oriented, compatible and integrated into the EU and in continuous cooperation with the neighbouring countries develops complementary strategies and facilitates international transport performance.

ASPECT OF SUSTAINABLE DEVELOPMENT: Transport system in the Republic of Serbia uses each mode of transport to its advantages and benefits, considering its external costs, and it is market oriented with stable financing system; traffic safety is improved up to the level of the EU; negative social and environmental impacts of traffic are controlled and permanently reduced.

ASPECT OF STABILITY OF INSTITUTIONS: Transport system in the Republic of Serbia is supported by well designed institutions organized and balanced according to the needs, with competent and technically equipped staff; structured in such a manner that the public and private

sectors jointly use and manage the transport system in an efficient way, ensuring the implementation of the Strategy.

V. GENERAL GOALS OF THE STRATEGY

Considering the basis for realization of the Strategy and conclusions of the SWOT analysis of railway, road, inland waterway, air and intermodal transport in the Republic of Serbia, given in the Addendum 2 which is published together with the Strategy and makes its constituent part, and respecting the transport vision of the Republic of Serbia 2015, general goals of the Strategy are defined, as follows:

1. Transport network of the Republic of Serbia is integrated into Tran-European transport network. In order to achieve the goal, it is necessary to perform rehabilitation, reconstruction and construction of Pan-European Corridors VII and X, on the system approach, develop and rationalize transport network, respecting sustainable development of the Republic of Serbia. The route Belgrade-South Adriatic, routes 3, 4, 5, 6, 7, 10 and 11, as well as certain transversal connections of Core Network are accepted as part of TEN;
2. Efficient usage of comparative advantages of each mode of transport. In order to achieve the goal it is necessary to consider and reduce external expenses, introduce fair charge determining and charging for infrastructure use for all modes of transport. Strengthening intermodal transport is necessary for orientation of transport demands towards more socially acceptable modes of transport;
3. Upgrading of service quality of transport system. In order to achieve the goal, it is necessary to increase the effectiveness of all transport modes and the transport system as a whole by better organization of transport operations based on economical, safe and environment protecting aspects and by application of goal oriented planning and managing of transport flows. It is necessary to develop a unique transport system harmonized with the users' requirements and efficient and effective fulfillment of the demand for individual mobility;
4. Increase of traffic safety and security of transport system. In order to achieve the goal, it is necessary to decrease the number of fatalities on roads and number of accidents in inland waterway, railway and air transport in the Republic of Serbia. Transport of dangerous goods is in accordance with the EU directives and ADR, RID and ADN regulations;
5. Strengthening of the transport market and its gradual deregulation. In order to achieve the goal, it is necessary to: provide conditions for better competitiveness among transport modes and within the modes on the transport market; establish regulatory, operational, and managing functions in the sphere of transport; perform gradual and justified deregulation and liberalization of the transport market and compensation of the measures; strengthen local operators' competitiveness on domestic and international market; perform cooperation among state bodies and companies in the sphere of transport to develop transport market;
6. Decrease of negative impact of transport on the environment, in accordance with principles of sustainable development. In order to achieve the goal, it is necessary to develop the transport system of the Republic of Serbia in line with principles of

sustainable development, environment protection (decrease of air pollution, noise and causes of global warming) and social responsibility;

7. Establishing stable financing of the transport sector development. In order to achieve the goal, it is necessary to make conditions for sustainable development of the transport system by stable financing resources from the budget and other financing resources and ensure efficient transport system management and efficiency and effectiveness of urban and suburban system of passenger transport.

VI. DEVELOPMENT OF THE TRANSPORT SYSTEM

1. Road transport – vision for 2015

In 2015, the road network in the Republic of Serbia has a higher level of services when compared with 2005. The system of public roads in the Republic of Serbia is capacity oriented to the demand and meets all the requirements of domestic and international transport market.

Investments made in the previous period enabled gradual development of high capacity highway network, where both national long distance and transit transport is performed. The integral system of electronic toll charging has been introduced and is operational on the whole network. For the price he is paying, the user gets a series of high-quality services - high safety level, safe and comfortable parking, quick assistance and service, information on the road and traffic, good health and catering services.

Tolls are used for maintenance and construction of highways. The principle “polluter pays” has been introduced in road transport, so that the vehicles which pollute the environment more pay more charges for public road use. The rest of the state road network has also been reconstructed and has a high level of services. Regular and winter maintenance are on the level of European standards, and financing is carried out through a specialized fund. The fund sources are regulated by law. Local self government units maintain and upgrade the municipal road and street network on the same principles.

The re-categorization of the network has been finalized and competencies are clearly distributed, as well as responsibilities for both state and municipal roads and streets. The public road cadastre and road grounds inventory have been completed and upgraded, as well as of all public roads and road ground users, who are obliged to pay a fee for the use, which represents one of substantial sources of financing for road network maintenance on all levels.

The reform in the field of public road maintenance has been over. The system of fair competition and contracting based on the quality of maintenance services provided is being implemented, including winter maintenance integrated with the system of hydro- meteorological stations on the whole territory of the Republic of Serbia.

Efficient organization and transport management are of great importance, particularly in densely populated areas. The use of intelligent transport systems and integrated access to hubs where public and individual transport intersect, facilitate transport management.

Road transport development is directed to increase of competitiveness and professional performance of the sector, and the access to the transport market in the road transport is based on principle of non-discrimination.

Regulations in the field of road transport are fully harmonized with corresponding European regulations from the aspect of technique, technology, standardization, safety and management.

1.1 Modern road network

The Republic of Serbia gives priority to the system of interoperable highway corridors, on which the same standards are met along the whole corridor, in terms of service level, safety, toll charging system, information and different services. This system contributes to the increase of users' comfort and to increased traffic safety on the corridor, additionally affecting economic development and increase in demand for services.

The current major and regional road network consists of about 15,000 km of roads, and the state road network will be considerably reduced by re-categorization. Priority in the first medium-term period will be given to rehabilitation, maintenance, completion and harmonization of the characteristics of state roads category I and constructions on the road network. City bypasses, state roads category II and municipal roads and streets are to be developed according to the need to harmonize and homogenize the characteristics of the whole network.

1.1.1. Network development concept

The basic component of public road network consists of road corridors and routes of Core Network, which enable the Republic of Serbia to be better connected with the environment and to become a part of the Tran-European road network. The concept of the public road network development has to take into account:

1. economic and demographic development of the Republic of Serbia and special goals;
2. trend of improvement of political relations in Europe and formation of the integrated Trans-European road network and Core Network;
3. improvement of road transport efficiency and upgrading of the existing network between the countries of West, Central, East and South Europe and the Middle East;
4. political and geographic position of the Republic of Serbia in relation to the environment and the European Union and obligations resulting from the inclusion of the Republic of Serbia into the international system, i.e. into the Trans-European Road Network;
5. connections with the Republics of former Yugoslavia jointly planned through SEETO and are financed from the EU pre-accession funds.

In the context of setting priorities for improvement of the existing public roads and the construction of the new ones, modern and rational approaches for increasing roads capacities should be systematically used, bearing in mind the available resources, the needs and the network as a whole, which implies the possibility of phased construction.

1.1.2. The main road transport axes

The main road transport axes, strategically important for the Republic of Serbia, harmonized with HLG, and Core Network are:

1. Corridor X: Ljubljana-Zagreb-Belgrade-Niš-Leskovac-Skopje-Thessalonica;
2. Corridor X, Corridor section - Xb: Horgoš-Subotica-Novı Sad-Belgrade;
3. Corridor X, Corridor section - Xc: Niš-Dimitrovgrad-Gradina-Sophia;

Other road routes as parts of Core Network which are important for the Republic of Serbia are:

1. Route 3: connection of Corridor Vc to the route Belgrade-South Adriatic Road (Bosnia and Herzegovina border-Kremna);
2. Route 4: Romanian border -Vršac-Pančevo-Belgrade-Čačak-Užice-Montenegrin border;
3. Route 5: connection of Corridor IVa to Corridor X (Bulgarian border-Zaječar-Paraćin);
4. Route 6: connection of Corridor VIII to the route Belgrade-South Adriatic Road (Montenegrin border-Ribariće-AP Kosovo and Metohija);
5. Route 7: connection of Corridor X to AP Kosovo and Metohija (Niš-Prokuplje-Kuršumlija-AP Kosovo and Metohija).

1.1.3. Long-term road network development

Within a long-term development concept, apart from already recognized international corridors and routes through the Republic of Serbia, the importance of individual transport flows or the weight of special goals should also approve a further long-term development of transport network and bring to application to include them into Trans-European and Core Network. These projects on the Republic of Serbia territory will contribute to the development of international, regional and domestic transport. This particularly refers to:

1. potentially new international transport corridor Romanian border-Vršac-Belgrade (Core Network - Route 4);
2. project Belgrade-Požega-South Adriatic, being the connection of Corridor X and Corridor IV in Romania to the Adriatic Sea. This project follows the Route 4 of Core Network;
3. road route Zaječar-Paraćin, being the connection of the Corridor IV in Bulgaria to Corridor X in Serbia. This road route follows the Route 5 of Core Network.

After the priority network rehabilitation, route Pojate-Kruševac-Kraljevo-Čačak should be proposed as a new part of Core Network to connect Corridor X with route Belgrade-South Adriatic. The proposed route follows the existing sections of the public road network. The transversal connection of Corridor branch - Xc to the Route 7 (Niš-Prokuplje-Kuršumlija-AP Kosovo and Metohija) from Pirot to Leskovac should be considered in the same context.

Starting from the existing highway sections, current and anticipated demand on the main routes of the public road network of the Republic of Serbia, spatial distribution of number of inhabitants and limited capacities, as the strategic interest of the country may be defined relatively fast creation of the Basic triangle of the highway network of the Republic of Serbia (Beograd-Pojate-Čačak-Požega-Beograd) with significant indirect influences along existing two-lane roads in the broader area.

This general concept may partly be modified due to necessary compromises and international obligations, which must not jeopardize the interest of fast creation of the Basic highway triangle of the Republic of Serbia.

1.1.4. Short-term to mid-term road network development

According to the document HLG, the European transport policy has limited its priority projects until 2010 in respect to public roads' infrastructure of the Republic of Serbia in the following way:

1. List 1 - short-term and medium-term projects - Roads:
 - a) 21-increase of the road quality level on the sections Hungarian border-Belgrade-Niš-Macedonian border;
 - b) 22-bypass around Belgrade, section Batajnica-Bubanj potok;
2. List 3 - other major projects on multimodal axes and projects of regional or national importance:
 - a) 38-Gazela bridge in Belgrade;
 - b) 39 intermodal logistic platform in Belgrade.

Priority works on the public road network are:

1. construction of the second road lane on the section Horgoš-Belgrade (Corridor branch-Xb);
2. construction of sections of the highway Leskovac-Macedonian border (Corridor X) and Niš-Bulgarian border (Corridor branch-Xc);
3. the main road corridors of Core Network have the priority in rehabilitation/reconstruction: Corridor X, with its branches Xb and Xc, Route 3 (Užice-border of Bosnia and Herzegovina), Route 4 (border of Romania-Vršac-Pančevo-Beograd-Čačak-Požega-Užice-border of Montenegro), Route 5 (border of Bulgaria-Zaječar-Paraćin), Route 6 (border of Montenegro-Ribariće-AP Kosovo and Metohija), Route 7 (Niš-Prokuplje-Kuršumlija- AP Kosovo and Metohija) as well as transversal links Pojate-Kruševac-Kraljevo-Čačak and Pirot-Leskovac-Lebane- AP Kosovo and Metohija and Subotica-Bačka Palanka. Realization stages have to be determined on the basis of economic feasibility.
4. identification of bottlenecks on Core Network of public roads in the Republic of Serbia - the roads through and around Belgrade, bridges on the Danube and the Sava in Belgrade and its surroundings, bypass around Belgrade, the road Belgrade-Novı Sad (the bridge near Beška), temporary railway-road bridge in Novi Sad, Ibarska magistrala road;
5. reconstruction of bridges on the road network in order to improve their structure, stability and bearing capacity. Due to inadequate maintenance during years and increased traffic density on some sections of the network, the bridges have become significant bottlenecks. A special analysis for defining priorities for the reconstruction of bridges on the Core Network should be made;
6. preparation of the study on priority measures for increased traffic safety on international roads in the Republic of Serbia. Introduction of official methodology for the definition and rehabilitation of high risk road sections and the repair. Introduction of roundabouts wherever it is necessary and possible;

7. Stabilization of landslides which cause occasional traffic interruptions and slow down the traffic.

Guidelines for projects in progress are:

1. The Belgrade bypass. According to the project from 1975, based on traffic forecasts up to 2010, the construction of 4-lane road was undertaken. The construction was stopped and continued several times, due to the lack of funds and war actions (destruction of Ostružnica Bridge). It is necessary to harmonize the Bypass project with relevant EU regulations, in order to meet international standards. Special attention should be paid to tunnels. The priority is given to finalization of started sections, but in the next mid-term period, for functional reasons, priority should be given to the completion of the bypass on its whole length, with the narrower profile than the originally projected one. The enlargement, according to the needs, may be carried out in the second phase;
2. motorway Horgoš-Novi Sad-Belgrade, which is planned as a 4-lane motorway. The reconstruction of the existing bridge and the construction of the new bridge across the Danube near Beška has been planned within the project. Its completion is planned for the end of 2010. The financial construction has not been completed yet. Parts of this project are included in the concession for highway route Horgoš-Požega;
3. the section Horgoš-Belgrade-Požega (part of Corridor branch-Xc and the road Belgrade-South Adriatic-sections Horgoš- Novi Sad (106.9 km, 2 lanes - Lot 2) and Belgrade - Požega (148 km, 4 lanes – Lot 1) for which the concession for construction, operation and maintenance has been awarded.

Specific goals are:

1. polycentric development of local road network;
2. establishing the system of pavement management on the whole network;
3. membership in specialized international bodies and organizations;
4. establishment of bodies/organs for traffic safety management;
5. introduction of intelligent transport systems, electronic toll collection system and interoperability in the toll collection system.

1.2. Road transport development

Unequal development of transport modes proves the fact that certain modes of transport are more adaptable to bigger changes which happen in the economy and production. More favourable economic conditions for companies, flexibility and capability to meet promptly the requirements of modern economy enabled the greatest share of road transport on transport market. Considering the geographical position of the Republic of Serbia as a transit country, the road transport, especially international one, has an important role in the economy development thanks to the constant growth.

The result of road transport comparative advantages and of the increase of transit volume through the territory of the Republic of Serbia will be a further volume growth of road transport.

Challenges that road transport faces are characterized with bigger expectations from users in terms of services of more quality, time losses on border-crossings and delays in the central urban

areas, high expenditures and bigger competition. Rapid road transport development can lead to congestions on the main routes in cities as well, and it may have a negative influence on the environment and the health of the population and decrease of traffic safety level. It is necessary to make conditions for redirection of the demand to other modes of transport with the aim of controlling the excessive development of the road transport.

1.2.1. Public road management

Classification on state roads of category I and II and municipal roads and streets has been provided for in the Law on Public Roads ("Official Gazette RS" No. 101/05). Recategorization will be done in the next mid-term period. The condition for the application of new solutions is the improvement of financing models for state roads and definition of financing models for local road network. Problems caused by categorization are increasing with the restriction of public road maintenance resources. Vertical and horizontal structural forms of road infrastructure management must include the function of concern for the widest interest of the population and economy, and they must especially take into account the balanced regional development.

The state roads managing activities are performed by PE "Roads of Serbia", which performs business activities in compliance with market principles. Its business activities of the public enterprise are very closely related to the methodology of determining infrastructure charges and costs and regular maintenance costs for the network managed by the public enterprise. The public enterprise, among other things is in charge of:

1. efficient service of monitoring and surveillance of state roads, with the aim to control their state in a better way and to increase the roads maintenance efficiency;
2. more efficient and better adapted service of the watching of vehicles' axle weight, exceptional carriage and collection of related taxes prescribed by the law;
3. preventive actions, organization, introduction and implementation of the measures for road safety increase;
4. efficient traffic management and direction service on the state road network.

The duty and responsibility of the manager of public road will be preparation of detailed instructions for all users of its services, which will be available to all interested legal and physical persons through the Intranet, i.e. the Internet Web-site (procedures and practice for each individual activity, issuing conditions, submitting requests and applications, approvals for public roads protection, information on tolls and other fees prescribed by the Law on Public Roads, etc.)

It is necessary to fully update the cadastral register of public roads and lands possessed by the public road manager and make consistent network categorization for the purpose of better harmonization with the social needs and ways of financing.

The public road categorization in the Republic of Serbia, along with safety level, should be made in accordance with EURO RAP standards.

The current databases on public roads, road structures and other structures on roads, equipment and traffic are not updated, integrated and available. It is necessary to establish, maintain and regularly update a uniform relational database which will include all relevant data on roads, with full technical and technological cohesion with new databases for the land cadaster used by the

public road manager, road structures, landslides, traffic signalization, commercial objects by and on public roads, the archives of old projects and projects in progress, for archive projects of completed works, archives of feasibility studies and pre-feasibility studies, technical documentation on rehabilitation and reconstruction, on accidents and on external costs. All these databases should be related, regularly updated and maintained, so they their easy and transparent use is ensured. One body which will be solely in charge of correctness, up datedness and simple access to this database should also be appointed.

A very important condition for implementation of the Strategy will be setting up an interactive Intranet network of the whole road sector, whose holder should be public road manager, with different levels of accessibility for different users; which should be linked with Web-sites of Police, Customs, Automobile Association of Serbia, insurance companies, automatic hydro-meteorological stations and hydro-meteorological services, Serbian Armed Forces, bodies for traffic safety, faculties and scientific institutes, Institute for Standardization, design and consulting companies, maintenance companies, but also with institutions for environment protection, institutions for the protection of nature, national parks, ministry in charge of agriculture, forestry and water management, Republic Waters Directorate, Public Water Management Company (PWMC) Srbijavode and PWMC Vode Vojvodine etc.

1.3. Intelligent transport system application

In situations when due to spatial, ecological and financial restriction, the realization of new infrastructure projects is significantly difficult, ITS application allows more efficient usage of the existing infrastructure and in that way enables more efficient and more economical movement of passengers and goods in all transport modes.

The current state of ITS application in great extent is conditioned by the lack of financial support to the development and application of ITS on roads, limited knowledge of the benefit of the usage of ITS and modest capacity of the institutions which have to promote and develop ITS.

Reasonable usage of ITS, coordinated in accordance with the Strategy should significantly enhance the efficiency, safety and security in road transport and provide significant investments into ITS development and application. In that way delays will be reduced, energy efficiency and road transport safety and security will be greater, and the environmental impact will be less.

Guidelines for the development and application of ITS, adopted and coordinated by the ministry competent for traffic affairs, should make the legal and strategic framework for promotion of the ITS usage and bigger engagement of the private capital.

1.4. Road traffic safety

In 2006 there were 900 people killed, 72% of the number were killed on the road network in urban places, and 44% on roads with the speed limit up to 60 km/h. In Belgrade, 283 persons were killed or almost a third out of the total number (31%). According to data by the traffic police, 50% were road vehicle drivers who were killed (including motorbike riders), and 24% were pedestrians while passengers in road vehicles make 24%. In urban places the biggest

problem is the percentage of killed pedestrians, which is 60% of the total number of the killed in Novi Sad.

The level of motorization in 2005, was 224 vehicles per 1,000 inhabitants, and the economic growth from 1999 to 2005 brought the growth of number of registered vehicles by 18%. Also, about 90% of passengers and 80% of freight are transported by roads. Adoption of new road traffic safety regulations allows the setting up of the system for traffic safety management which achieves efficiency of the whole road transport, reduces the number of the killed and contributes to reduction of social-economic costs. From the road transport aspect the harmonization with new EU rules on periods of driving and rests for drivers and controls on roads is necessary.

1.5. Improvement of competition of domestic operators on the transport market

Thanks to the growth of private transport companies and the presence of foreign investments in the sphere of road transport, the competitiveness is being intensified at high speed. The imperative is to protect and improve competitiveness of local carriers with professional and rational management of companies and transport operations sticking to the principle of non-discrimination, fair competition and improvement of quality of services offered.

The efficient road transport which fulfills the highest standards of safety and professionalism is necessary for continuing economic state development. Hence, it is necessary to make conditions in which due to further development, the economy and the state would act in harmony. Enhancement of the cooperation is necessary especially with a view to further development of services, introduction of possible programs for the development of companies and their mutual cooperation, reduction of costs and availability of information on market conditions.

The road transport development should be directed to better professionalism in the sphere and harmonization of national regulations with EU regulations. The alleviated approach for domestic carriers to the European transport market in the future, and especially after the EU accession, will depend on fulfillment of criteria referring to carriers' performance of the road traffic activities in terms of a specific level of professional qualification for managers in a transport company, good reputation and specific financial state for the company.

1.6. Environment protection

Environment protection, promotion and stimulation of all types of clean technologies for public road construction and maintenance represent the basis of state policy, which refer to the use of "cleaner" engines and machines.

New technologies and materials for public road construction and maintenance may be applied only with internationally valid proofs of harmlessness and prevention of harmful effect on the environment, including the air, soil, surface and ground waters, and in accordance with the EU standards. Excessive use of salt and gravel should be prevented and avoided during winter season and the effects of routine road maintenance should be supervised, as well as asphalt bases, depots of recycled materials, quarries, drainage systems for surface waters - purification systems etc.

The rolling stock status has a great importance not only from the aspect of road transport operational efficiency but from the aspect of environment protection and safety. Considering the road transport constant growth and the achieved results of implemented measures for vehicle technical conditions (introduction of EURO standards for vehicles into the vehicle type approval distribution for the international transport operations) it is necessary to define precisely the regulations regarding vehicles testing and to strengthen supervision for operations of measuring stations for technical heavy goods vehicle testing and coaches participating in international transport.

Close and efficient cooperation and synchronization of activities is required between transport authorities and bodies, agencies (ministries competent for environment protection, institutions for environment protection, institutions for the protection of nature, national parks, ministry competent for agriculture and water management etc.)

Local communities should be more involved in dealing with the problems resulting from infrastructure, especially regarding the transport of dangerous goods, soil and water protection and noise reduction. Ecological surveillance must be mandatory not only during construction, but during public road maintenance as well (particularly near the places for asphalt production, depots of recycled materials, quarries, surface waters drainage systems - purification systems, storage areas of petrol products and petrol stations, etc.).

1.7. Sustainable financing

The Republic of Serbia will provide sustainable state roads maintenance financing, which means network maintenance financing from stable sources, defined by law, which fully covers the needs. The Republic of Serbia will finance routine state road network maintenance from the road fund which will be established for the purpose. The financing system of the fund (road use charges, taxes, levies, budget, loans and credits) must be transparent and it should involve methods and procedures for uniform setting of project priorities.

In accordance with good international practice and the recommendations of International Financial Institutions, new infrastructure will be financed from EU development funds, grants, international infrastructure loans and investments from the private sector on all levels.

The Republic of Serbia is open to different infrastructure investment models, with the use of loans, PPP and concessions. Consequently, it is necessary to prepare a strategic document defining the PPP models for the financing of transport infrastructure.

Taxes paid by vehicle owners and road users are important from the aspect of transport infrastructure management, and the policy of fuel prices determination is particularly important. A direct collection of road infrastructure use charges should become more significant in the future.

Local authorities are in charge of maintenance of local road network and streets. It is necessary to define the solutions and models for the financing of rehabilitation and maintenance of the current local road network and streets and also, part of the current state road category II network,

which will be recategorized and will fall within the competence of local self government. In order to reduce costs, new technologies and materials should be promoted and applied. Materials for maintenance and reconstruction of pavement constructions should be in accordance with the traffic density on municipal roads and streets, and with the needs and economic restrictions of the local self government.

1.7.1. Management of expenses

The measures for reduction of the road infrastructure expenses, which will contribute to ensuring sustainability of the public road network management system, are the interest of the state.

Rationalization of the design/construction process must be provided, and the priority should be given to the design and construction solutions and companies which have proved to care for the projects savings of the investor on the project implementation. A sub law act, which clearly defines the methodology of supplementary and contingent works on construction, reconstruction, rehabilitation and maintenance of public roads, should also be adopted.

It is vital to establish a precise system of responsibilities for financial and technical project monitoring and surveillance, from the beginning to the end, both for legal and physical persons. The same principle should apply for all those who perform procedures of supervision of the quality of technical documentation, as well as the procedures of updating and monitoring unit prices used for the calculation of most rational technical solutions.

Reduction of regular maintenance costs will be achieved by introducing competition and by applying the principle of contracting routine and winter maintenance with payment according to the volume and quality of the completed works (performance based contracts). The allowed cost overruns should be set at maximum 5%, until new contract system is introduced. The modification of the contract shall be demanded for all amounts exceeding this percentage.

A procedure should be defined, which regulates traffic rerouting, with clearly defined financial effects and the obligation of paying the investor for the damage and lost revenues caused by the activities (special attention should be paid to transport conditions during works - traffic should proceed or it should be interrupted or rerouted, with contractor's financial obligation to compensate the investor for the damage caused by possible ulterior traffic rerouting along a different route).

Setting up a system of automatic hydro-meteorological stations with standardized and unified technological and operational concept on the whole territory of the Republic of Serbia and Road winter information system (RWIS) lead to more efficient and cheaper winter maintenance and increase of safety in winter conditions. Thermal mapping of the relevant areas of the state territory should precede. The ITS application system for the control of expenses and the improvement of winter maintenance efficiency must be conceptually and technologically integrated in the whole country.

Public road manager will periodically, every three years, revise contracts with private companies - contractors for routine road maintenance, and will update and suggest models for future

contracting of these activities, giving priority to better quality, more efficient and economically worthwhile contractors who save the funds of the investor, i.e. the state.

Information on all types of public sector expenses must be updated, public and available on all levels, for all types of operations on road networks.

1.8. Urban and suburban public passenger transport

Transport strategies must be particularly sensitive to solving problems in urban and suburban public passenger transport management, in cooperation with city authorities, social and health care sector, environment protection sector and other sectors. Combined instruments should be used to influence above all:

1. reorientation of public demand from individual (car) transport to public and non-road modes of transport;
2. prevention of unnecessary traffic by reducing the travel time, using information and communication technologies, and especially reducing peak values of traffic flows.

Urban and suburban transport infrastructure is a serious restrictive element for the development of many towns in the country. On the state level, in order to relieve the town center from heavy traffic and to connect towns with the remote traffic road network structure, it is vital to construct city bypasses.

Since the funds are limited, it is important to choose carefully priority projects and the participation of the state in their construction, which must always be preceded by a relevant feasibility study. In some cities, attention should be paid to the modernization and adaptation of railway/tram infrastructure, as a key factor to public transport improvement, but also to rational space planning and reduction of negative impact on the environment.

Strategic goals of urban and suburban public transport must be defined on the state level and local authorities should be stimulated to achieve them within their specific environment, conditions, interest and available funds.

Specific goals are:

1. preparing long-term plans (and budgets) for urban and suburban public passenger transport;
2. increasing capacity and the level of services in urban and suburban public passenger transport;
3. stimulating the use of urban and suburban public passenger transport instead of private cars in city areas;
4. preparing the programs for restricting the use of vehicles in city areas;
5. integrating city and state road networks;
6. modernizing vehicle fleets;
7. improving the projects of street networks and parking management;
8. developing reserved transport infrastructure for public, pedestrian and bicycle traffic and transport wherever possible;
9. directing transit flows outside city areas by improving infrastructure;

10. adapting the transport infrastructure and vehicles to specific groups of users (children, persons with special needs, elderly people, etc.).

2. Railway transport – vision for 2015

In 2015, the Republic of Serbia has a strategic position on the railway market of South East Europe. Railways represent an efficient and ecologically acceptable transport system, well organized and market oriented. All measures adopted by Government from 2004 until 2006 have been implemented and carried out. Railway transport system is demand oriented and all requirements of local and international market are met.

Modern traffic organization models are used on Corridor X and on the railways Belgrade-Bar and Belgrade-Vršac (Core Network route 4), which are the skeleton of railway infrastructure network in the Republic of Serbia, and also on a well-organized system of secondary routes.

Big towns in the Republic of Serbia and neighbouring countries are connected by fast, quality, safe and accurate passenger trains, which operate with satisfactory frequencies on a daily basis. The railway is incorporated, wherever it is possible and rational, into urban public passenger transport with unique tariff.

The Belgrade railway node, with the go-through main railway passenger station, has become a significant transport hub between the West and the East and the North and the South of Europe.

Railway in the Republic of Serbia is a reliable partner in the European logistic system.

2.1. Modern railway network

The Republic of Serbia gives priority to the system of interoperable railway corridors, on which certain standards are met along the whole length, in terms of infrastructure quality, train speed, information exchange and different services, as well as harmonized system of infrastructure charges. This system of services contributes to the increase of traffic frequency and safety, along with additional effects of economic development acceleration and the increase of services demand.

The aim is to facilitate and develop international railway transport by coordinated plan for reconstruction, construction and equipment of railway lines in line with the future international transport needs according to AGC.

The Republic of Serbia will direct capacities according railway service demand.

Significant increase of capacities of single-track lines is possible by the construction of shorter double-track sections only in the places where it is necessary for passing over and/or overtaking, according to the national priorities. In all other cases, feasibility studies must be prepared to check whether the alternative and cheaper solution, single-track railway with double-track islands and larger investments in the automatic systems can sufficiently increase the railway track capacity.

In order to increase the average speed and competitiveness of the railways, agreements should be concluded with the neighboring countries. These agreements will provide transport characteristics "with one stop" (One Stop Shop) in the first phase, and later the system "without borders".

2.2. Main infrastructure axes

Priority should be given to the rationalization and the improvement of the existing system. Pan-European Corridor X is the backbone of the railway infrastructure system of the Republic of Serbia, since over 50% of transport operations are realized on 25% of the network. Most of the revenues of the railways are generated from remote freight transport and transit transport on this section. The greatest challenge, in the short-term and in the mid-term, should be the establishment of projected speeds and technical standards on the network.

High technical standards are the condition set by the European Commission for Pan-European railway network in order to provide competitiveness of the railway sector. Therefore, one of the main mid-term objectives of the Strategy is to restore project parameters and to reestablish projected speeds and technical standards on transit lines of the network in the Republic of Serbia (Corridor X). Consequently, in the long-term, the part of the Pan-European corridors on the territory of the Republic of Serbia, in cooperation and with the agreement of UIC and EU, can gradually be raised on the higher level. Basic modernization, along with the increase of maximum speed to 120 km/h, should be done on the other lines of the Core Network (routes 4, 10 and 11), as it has been defined in the REBIS study.

Traction systems must be dimensioned so that they provide optimization of the use of rolling stock. New investments in these systems must be approved only after convincing feasibility studies have been prepared.

Internationally prescribed railway loading profiles must be provided. This is important not only for the transport of heavy freight vehicles, but also for the container transport, which is vital in terms of intermodality. Profile UIC C must be ensured on the whole Core Network.

2.3. Organization and management

The process of restructuring of PE "Serbian Railways" should be carried out according to guidelines of competent bodies. Besides the process of commercialization and the approach to railway infrastructure to other operators is needed, and in that sense it is necessary to:

1. prepare the program of financial consolidation of PE "Serbian Railways";
2. prepare realistic business plan of PE "Serbian Railways" with the positive flow of capital, which must be respected;
3. plan further reduction of the number of employees in PE "Serbian Railways" (including the social program);
4. prepare programs of traffic suspension on certain lines, cancellation of passenger and freight stations, as well as the reduction of unprofitable services;
5. introduce public transport obligation and its financing from the budget of the Republic of Serbia and by the local authorities;
6. issue licenses and certificates to operators and infrastructure managers.

Higher investments into railways will practically be provided by the implementation of:

1. harmonized legislation which will ensure private capital investments into the railways;
2. operational procedures for giving concessions and giving away unprofitable lines to the local authorities or other physical and legal persons.

The Law on Railways lays the grounds for the separation of infrastructure management and railway transport operations, and approach to railway infrastructure.

Further restructuring of PE “Serbian Railways” has been anticipated in the Strategic plan of PE “Serbian Railways” 2006-2010, after the process of financial consolidation is completed. In order to accelerate this process, key activities are:

1. reorganization;
2. reduction of workforce;
3. separating of secondary activities;
4. reduction and cancellation of non-profitable services.

The use of railway infrastructure should be based on the competition and market environment, with equal conditions of approach to the infrastructure for interested railway operators. The minimum required condition, set by the European Union and CER/GRB/CCFE, is the full implementation of the following guidelines:

1. establishing the independence of management structures in the operations in railway transport (the guarantee of independence in managing a railway company);
2. separating the management of railway infrastructure and public passenger and freight transport in railway (preventing the overflow of funds from one activity into another), so that organizational and institutional separation is not compulsory at least at the beginning of company reorganization;
3. transparent financial position of railway companies.

2.4. Passenger transport

High-quality railway passenger transport is the alternative to road transport and particularly at distances between 200 and 500 km railway passenger transport may be very competitive to road transport, if particular standards are met. Between capital cities and major cities of the West Balkans in cooperation with railway companies of the neighbouring countries, a system of fast passenger trains with market-oriented timetable should be established. Furthermore, a national system of comfortable trains connecting major cities on the Core Network should be established, with the timetable based on regular intervals, so that it can be competitive with individual transport.

Passenger transport on secondary lines should be organized on the following principles:

1. attractive connections to city centers with the timetables harmonized with timetables on the main lines;
2. local authorities coordinate transport services within their competence, and they are responsible for integrated transport system;
3. only passenger transport activities are financed by passenger transport revenues;
4. unless it is profitable and covered by the public transport obligation, passenger transport shall be substituted by coach transport.

Integrated urban and suburban public passenger transport in Belgrade and other major cities should be developed in cooperation between ministries, cities/municipalities, city transport companies and railway companies. Modern "Traveling centers" should be established as hubs between interregional and local transport and they should also be developed as trade centers. A good example is the railway station "Beograd Centar", which could be developed into one modern traveling/trade center. Urban and suburban public passenger transport systems should be developed as integrated systems with uniform tariff system. The system of suburban trains, complemented by the system of coach transport, contributes to the reduction of congestions during rush hours.

2.5. Internationally competitive freight transport system

Railway freight transport system in the Republic of Serbia must be organized to be highly competitive to road and other transport modes. Operators of combined transport and operators on terminals, together with their foreign partners, must offer appropriate logistic packages to the economy of the Republic of Serbia. As such, they must be competent partners to other transport companies and provide a complete service to clients, with modern transport technology. Nowadays all clients insist on a full service, not wanting to burden their business activities and to spend time on transport organization and contracting with operators and later to face the responsibility generated.

A popular term freight transport "door to door" can be provided via combined transport operator, and for railways this would represent generating new freight flows in combined transport.

Delays at railway border crossings create great losses and result in low average commercial speed. Solutions for border crossings must start from the adoption of bilateral agreements based on mutual goals and interoperability requirements from one side, and better coordination of customs public authorities in their work, from the other. Significant contribution will be provided by establishing electronic information exchange between PE "Serbian Railways" and customs authorities of the Republic of Serbia.

Changes in bilateral railway agreements, both for infrastructure and for operations, will be based on adopted state agreements. This may lead to transit time decrease by about 40% and operational costs reduction of about 25%.

Successful implementation of the Strategy of Integrated Border Management in the Republic of Serbia and the Action Plan for its execution, which represents a great step in the sphere of border safety, at the same time creates a prerequisite for development of economic activities and unhindered cross-border trade and openness of border for efficient flow of passengers and goods in the region.

2.6. Serbian railway companies and railway industry

The liberalization of the European railway market gives a chance to innovative railway companies and operators to survive as domestic or trans-national companies. Possible guidelines for these activities, independent, or with regional or broader international cooperation would be:

1. quality of railway services on long distances between capital cities and regional centers;
2. enterprises for international services in remote train traction in the whole Balkans area;
3. catering and daily maintenance of passenger trains;
4. special tracks and trains included in wider tourist offer and the promotion of the country;
5. enterprises for transport services on the local level;
6. complementary industry oriented towards railways which build competitive centers for different railway products and services.

2.7. Financial aspects

Public Enterprise “Serbian Railways” needs subsidies from the budget of the Republic of Serbia, so that competitive railway system could be maintained, as well as fair competition among different transport modes, especially considering external expenses. Funds may be obtained from domestic and foreign sources, considering the difference between domestic and foreign demand.

The Republic of Serbia is in the long-term ready to implement all required measures on Trans-European axes according to the requirements of the EU. Prospective implementation of these measures, however, within desired deadlines will be possible only with the financial support of European sources.

Each investment should be sensible, supported by a relevant feasibility study and must perform the following:

1. to expand regional interests through harmonization with the strategies of other countries;
2. to stimulate regional development;
3. to provide financial sustainability;
4. to improve social and environmental conditions;
5. to adopt adequate common standards.

The process of consolidation, reorganization and rationalization of PE “Serbian Railways”, which has been initiated, should be continued in the following years, in order to reach the basis for complete restructuring and sustainable financing of the railways in accordance with the EU regulations (Directives 91/440, 2001/14 and others).

Railway infrastructure use charges level, organization of railway transport and railway traffic regulation influence the guidance of distribution of passenger and freight flows to transport modes. EU directives require that fair and non-discriminatory charges should be established, therefore, the Republic of Serbia should develop its system within this framework.

The Republic of Serbia has a possibility to establish its own system, which will support the Strategy, considering the fact that 55% of currently realized total ton-km is done in transit. Other investments relating to e.g. the railway rolling stock must be organized by railway operators themselves, which should be able to make use of the possibility of real estate management and other market opportunities (e.g. shopping malls and advertising).

Railway infrastructure financing should be based on the following:

1. continuous decrease of expenses through network rationalization;

2. charging users (operators) for railway infrastructure use;
3. setting aside budgetary sources for railway infrastructure maintenance;
4. introducing long-lasting contracts on financing of railway infrastructure between the Republic of Serbia and infrastructure managers;
5. railway transport which is cancelled for a certain period on the lines which cannot be financed from collecting charges for railway infrastructure use and from the budget of the Republic of Serbia. Unless the conditions for profitable exploitation are met, the lines will be closed according to the Law on Railways;
6. reinvestments are provided from depreciation and the Republic of Serbia budget revenues;
7. investments on transit routes are financed from EU funds, loans and State budget.

2.8. Concept of railway network development

The REBIS study defined a relatively modest volume of investment projects, in relation to the Spatial plan of the Republic of Serbia, but in the World Bank document "South East Europe Framework Paper-Final", from December 2004, it is thought to be too ambitious. The opinion expressed in this document is that single-track diesel railway is the most suitable option for the current traffic volume on most of the railway network in the Republic of Serbia.

However, although this opinion emerged from the WB practice, there are certain reservations towards this attitude, especially in the part referring to diesel traction. Due to the sustainable development principle, the saving of (imported and more and more expensive) fossil fuels, environment protection, the use of local sources of energy and unification of the railway rolling stock, electrification and modernization of main (single track) railways and the mentioned rolling stock, the reserve of the Republic of Serbia towards the attitude of the WB, has strategic and economic justification. This is supported by the fact that PE "Serbian Railways", spend today more on energy than on maintenance.

With the anticipated further rise of price of petrol and possible shortage, the use of electric power on the market of transport services will be a comparative advantage of railway transport in the Republic of Serbia.

With limited resources of the state and restricted international support, accepting a more realistic approach and defined priorities, the development plans of the railways must be reduced to a rational measure. The development guidelines should place emphasis on Corridor X, its branches and the railway line Belgrade-Bar, in order to achieve the goal of railway transport recovery.

Raising the level of service on the originally projected level must be the basic mid-term strategic goal of the railways in the Republic of Serbia, both in the field of infrastructure and in their operation. The Republic of Serbia does not need "High-speed railways", as an alternative to air transport, not even in the long-term.

Priority in the first mid-term period and probably in the second as well, will be given to the rehabilitation of critical sections on Corridor X, on the line Belgrade-Bar and later on other national and international lines of the Core Network.

Special attention should be paid to the effectiveness of the urban and suburban railway passenger transport. This transport certainly cannot be rationalized only by direct economic measures within the present and future development, and it must be subsidized in different ways in the long-term, above all through the public transport obligation.

2.9. Short-term to mid-term development of the railway network

Priority EU projects in the Republic of Serbia in the railway sector, according to the previously quoted HLG document, are defined on the List 1 - Short-term and long-term projects and they include:

1. 6-reconstruction and modernization of the railway: Hungarian border-Belgrade-Niš-Bulgarian border/border with FYR Macedonia, including the bridge over the Danube in Novi Sad;
2. 7-reconstruction and modernization of the railway transport within the Belgrade railway node.

The project from the List 3, No. 39, Intermodal logistic platform in Belgrade, is partly related to the railway transport.

Strategic plan of the PE “Serbian Railways”, for 2006-2010, besides the consolidation of the enterprise, forecasts the infrastructure construction, modernization and reconstruction, as well as rolling stock procurement, modernization and reconstruction (in several phases):

1. railway tracks and structures on Corridor X, of the Belgrade railway node and Dimitrovgrad station;
2. railway line Belgrade-Bar (Belgrade-Požega-Vrbnica-border with Montenegro);
3. modernization of 38 electric locomotives, procurement of 1,100 new freight cars, 18 new maneuver locomotives, and 10 used motor trains, modernization and reconstruction of 27 electric and diesel trains and 30 passenger cars.

2.9. Projects in progress

The REBIS study has recommended urgent project realization of the bridges in Belgrade and Novi Sad, even without the detailed feasibility study, due to their great economic and strategic importance:

1. Belgrade: Pančevo Bridge on the Danube - repair and strengthening of the existing bridge in order to reestablish fully operational railway line for suburban and remote passenger and freight transport;
2. Novi Sad: Reconstruction of Žeželj bridge (Corridor branch-Xb on the Core Network) will establish fully operational railway line and at the same time facilitate road traffic and IWT on the Danube, which was obstructed by the present temporary bridge.

Specific goals are:

1. establishing the current Directorate for Railways as an independent regulatory body;
2. adopting the legislative framework for railway infrastructure commercial management and fair and non-discriminatory competition;
3. establishing the legislative framework for commercialization of transport service and other operators in railway transport;

4. revision of technical standards and the implementation of EU directives related to interoperability;
5. implementation of international technical and safety standards;
6. implementation of regime of charges for railway infrastructure use;
7. implementation of system of the Public Transport Obligation;
8. introduction of long-lasting contracts between the state and infrastructure managers for financing of railway infrastructure;
9. introduction of the contract on usage of infrastructure between operators and infrastructure managers.

3. Inland waterway transport

In 2015, the Republic of Serbia has a well-organized IWW system, which meets all international standards, with the Danube as a European axis, the Sava and the Tisa rivers, its international confluences, and the navigable system of canals. The system of well-organized ports and intermodal hubs is developed, and the ports along navigable waterways offer quality services and high-quality intermodal transport chains to industrial companies. Freight transport is increased, and modern navigation system has improved operation quality and safety, contributing to the positive impact on the environment. Cruising along the Danube represents an important part of the Republic of Serbian tourist offer.

3.1. Modern inland waterway system

The interest of the Republic of Serbia lies in the stimulation of IWW transport, as very effective, energy-efficient and sustainable. As a competitive alternative, it is complementary to railway and road transport. The consumption of energy per ton-km of goods in inland waterway transport is six times lower than on the road and twice lower than on the railways.

Total external costs in inland waterway transport, expressed through accidents, congestions, noise emission, air pollution and other impacts on the environment, are seven times lower than in road transport. IWW transport provides high safety level, especially in the transport of dangerous goods. IWW transport contributes to the reduction of congestions on the road network in densely populated areas, and, despite geographical restrictions, affects price increase stabilization.

Europe is greatly interested in the use of IWW transport possibilities. Inland waterway transport in Europe is undergoing radical modernization, indicating the following:

1. exclusion of obsolete fleet and its replacement with modern, environmentally suitable and efficient ships;
2. introduction of intelligent transport systems and transport with satellite positioning, digital navigation cartography etc;
3. development of coordinated action plans on inland waterways (EU NIADES, Austrian action plan-NAP);
4. successful introduction of transport development agencies in inland waterway sector (in France, Belgium and Austria).

EU transport policy provides considerable support to the navigation on international inland waterways.

3.2. Inland waterways - towards European integrations

Inland waterway transport sector is based on international, regional, bilateral agreements, conventions or regulations, which greatly restrict the freedom of the state policy.

In reference to IWW, the Danube Convention guarantees to all signatories free navigation, prescribes the obligation of the state to maintain the navigable waterway on its territory on the recommended technical level and to provide navigation safety. Only customs inspections at border crossings and port services can be charged (Belgrade Convention from 1948). The room for maneuver for the state lies only concerning investments needed to meet the required standards and the velocity of modernization.

The Republic of Serbia may take advantage of the great interest of the EU for the Danube corridor and consequently for the other part of the inland waterways network, which may be reflected in the active concern of the EU for the efficient infrastructure of IWW in the Republic of Serbia, i.e. in stronger financial support for this purpose.

3.3. Inland waterway network in the Republic of Serbia

Inland waterway network in the Republic of Serbia includes:

1. the Danube as the basis of European inland waterways (Pan-European Corridor VII and part of Core Network), which provides the axis East-West from the Black Sea to the North Sea;
2. rivers the Sava (part of Core Network) and the Tisa as international supplements to the axis the Reine - the Danube;
3. hydro-system Danube-Tisa-Danube as a local network of IWW in Autonomous Province Vojvodina, with the connections with other countries.

The Republic of Serbia will use IWW for economic and ecologically suitable transport mode. Micro and macroeconomic effects from the existence of reliable IWW are expected: investments in attractive industrial locations close to IWW; investments in the transport sector; stabilization of prices of transport services etc.

3.4. Development concept

It is vital to reconstruct certain parts of the IWW network in the Republic of Serbia. Rehabilitation and modernization, of some neglected or non-maintained parts of inland waterways network in the Republic of Serbia, along with its financing, is being planned, so that:

1. the basis for the reconstruction is the available expert analysis of the status and prospects of IWW in the Republic of Serbia in the “Master Plan for Inland Waterway Transport”;
2. improvement of main parts of the IWW network in the Republic of Serbia is related to restricted costs;

3. the first projects have already been defined in the HLG Final Report and substantial financial assistance from the EAR has been planned (general overhaul of the ship lock in Đerdap, pulling out sunken ships at Prahovo and introduction of River information system-RIS).

Efficient multimodal access points are the key to efficient inland waterway transport.

Ports and harbors, along with the corresponding terminals, represent local access nodes for European IWW, providing intermodal transport services "door to door" when using inland waterways.

Efficient multimodal access points represent an essential part of public infrastructure, although they are not generally under full state control. Certain regulations will provide public access to relevant ports and harbors.

The Republic of Serbia will provide an attractive framework for inland navigation.

Necessary organizational work adaptation of bodies and services in the sphere of inland navigation will include:

1. organizational changes within institutions in the field of inland waterway transport (ministry competent for traffic affairs, Plovput, Jugoregistar);
2. cooperation with institutions from other countries regarding customs, police, agriculture, regional development planning;
3. responsibility for maintenance and development of relevant IWW from macroeconomic perspective.

Long-term prospects for inland navigation should be created. Planning and implementation of plans, organizational changes within institutions and the introduction of internationally recognized rules on competition will provide long-term prospects for:

1. obtaining international credibility and support;
2. providing stable conditions for investors (fleet, ports and terminals etc.);
3. providing the attractiveness and required specific training for the staff working or starting work in inland waterways navigation.

The state will maintain and develop the IWW as public transport infrastructure, taking care of its international dimension and accordingly, it will comply with the European practice related to operations and maintenance of international IWW, which includes:

1. modern organization of public institutions related to inland navigation;
2. efficient maintenance of IWW;
3. support for good integration of inland navigation into the general transport network (physically and logically - infrastructure and information exchange);
4. international cooperation on inland navigation development.

Inland waterway transport is an activity separated from transport infrastructure. Waterway transport by itself, as well as the use of waterways for tourism, is not part of public infrastructure, and they will function as part of the private sector according to market rules.

Subsidies to this sector, if any, will be given only in accordance with internationally accepted regulations on competition.

3.5. Priorities

The rehabilitation of IWW, with provision of clearing, digging, signalization and communications, as well as their regular maintenance, are the priority activities according to the international agreements and liabilities of the Republic of Serbia, stipulated in the Danube Commission recommendations.

Navigation conditions on the Danube, Sava and Tisa and DTD canals must be improved in accordance with the European development plans of the waterway transport.

The system of ports, in terms of infrastructure, facilities, equipment and proper connections with road and railway networks and with industrial and cargo distribution and consolidation areas have to be oriented towards multimodal approach, mainly for goods, but also in the domain of passenger transport.

Rivers the Sava, being the international inland waterway, and the Tisa, which has international regime of navigation according to bilateral and multilateral agreements, must also get the priority status.

The DTD system canal network has great importance, being a vital resource not only for transport, but for the agriculture and water management too.

Development of shipyard and accompanying industries (building, reconstruction, restoration and equipment of ships) with adequate pulling out capacities on the Sava, Danube and Tisa, which will meet the maintenance needs of domestic and foreign fleet, as support to the stimulative development of inland waterways navigation.

Specific goals of the IWW sector are:

1. gradual development of IWW and ports (freight-transport terminals) on Danube navigable network according to the AGN agreement;
2. competitive inclusion of IWW infrastructure in intermodal transport network;
3. organization of IWW in compliance with international classification of navigability;
4. supporting the development of domestic industry, tourism and trade.

4. Intermodal transport – vision for 2015

In 2015, the Republic of Serbia is fully integrated into European intermodal flows. The significance and role of intermodal transport has increased along with the recovery of the economy of the Republic of Serbia and integration processes in the region. The activities in this sector have particularly intensified with the establishment of institutions in the sector, the removal of bottlenecks on the corridors, the construction of intermodal terminals and logistic centers, improvement of organization of all users in intermodal transport chain and with the support of stimulative measures by the state. Fair and non-discriminatory policy and competitive

market have led to significant increase of volume of operations and the reduction of transport costs in the product price. With reliable and efficient intermodal transport organization, in 2015, the Republic of Serbia is a reliable and recognized partner in the European logistic system. The strong market growth in the Republic of Serbia and of companies operating on this market offers excellent prospects for profitable and successful future, when Belgrade as a capital, in 2015, will be a regional intermodal logistic platform.

4.1. Role of the state in intermodal transport development

Intermodal transport in the Republic of Serbia, as a transport of greater social interest, environmentally accepted, economically justified and safe, requires the state support.

The state role in the intermodal transport development is very important in order to facilitate the intermodal transport development with stimulant measures, with the aim to promote economical transport for the state and to make alternatives to freight road transport.

This especially refers to creating the financial support model for stimulating infrastructure projects for intermodal transport (terminals), the organization and terminal equipment and transport itself representing a necessary basis for the intermodal transport development.

It is necessary to coordinate the activities between competent state bodies from one side, and state and private companies from the other, through established institutional framework, so that the state can operate efficiently.

4.1.1. Organizational measures for intermodal transport enhancement

Intermodal transport with stressed advantages like every transport mode offers over other modes, achieves the overall transport process optimality. In order to make intermodal transport competent, with the state support, it is necessary to enhance technical and technological processes on border-crossings and terminals, railway infrastructure and to stimulate road operators performing initial/final operations in the intermodal transport chain, i.e. transport to/from terminals.

Organizational measures for enhancement of intermodal transport are:

1. railway infrastructure and border proceedings in railway transport have to be harmonized with international regulations and norms regulating intermodal transport, which enable precise and confident service;
2. opportunities for customs and inspection activities to be done in terminals for intermodal transport, ports, forwarding and the receiving stations, in order to speed up the border control procedure with the aim that dwell time for trains on border-crossings does not last longer than 30 minutes (according to AGTC);
3. road operators performing transport to/from terminals should be enabled that the transport is not subject to possible traffic ban (on Saturday, Sunday and public holidays), and provided conditions for passage of road vehicles with the total weight of 44 tons and exempted from paying additional charges, and exemption to foreign road operators for possession of licenses regulating international road transport should be introduced etc.

4.2. Guidelines for intermodal transport development

Until 2005, intermodal transport in the Republic of Serbia had a share of about 0.5% in the overall transport and in the EU countries 6-9%. Considering the size of the countries in the region and the limited potential for this type of transport, close cooperation of neighboring countries in this region is very important, not only strategically, on the basis of regional and by-lateral intrermodal transport initiatives, but operationally via operators for intermodal transport.

Establishment of optimal capacity of terminals for intermodal transport in the Republic of Serbia is particularly important for the rational development of transport system and economy as a whole.

Capacities of terminal should be gradually developed, according to the market requirements.

It is necessary to ensure that terminals according to the needs, apart from reloading of containers, should also be equipped for reloading of other units of intermodal transport (e.g. exchangeable transport tanks and semi-trailers) as well as whole road vehicles.

After positive experience in effectiveness and intermodal goods flows increase on railway, IWW and container penetration to transport market, conditions for realization of certain scenarios are made, regarding development of intermodal transport terminals, according to IMOD-X project results.

Terminals should be strategically located and designed in the vicinity of junctures of an important transport infrastructure (road-railway-river) to provide flexibility and the possibility for expansion according to the transport needs.

Capacities should be adequate and in accordance with the parameters and standards laid down in EU policies regarding intermodal transport (according to AGTC, AGC, AGTC Protocol etc.)

When considering suitable locations for initial development of terminals, in accordance with the EU practice and requirements, the following items should be taken into account:

1. the vicinity of the main source of containerized cargo and logistic centres;
2. equalized flows in import/export;
3. the use of existing infrastructure and capacities,
4. the connections with the railway network, the road network and inland waterway network (Pan-European Corridors VII and X);
5. efficient capacities for handling and storage of containers and other transport units for intermodal transport;
6. annual container handling capacity of at least 50,000 TEU;
7. development of catchment areas and favorable conditions for port industrial zones (free zones);
8. efficient customs and trade procedures with the application of information technologies (electronic data exchange);

9. proper additional services on terminals of intermodal transport (presence of customs and inspection services, forwarding services, empties depot, container repair facilities, security services etc.);
10. private sector participation;
11. expansion options.

Necessary basic infrastructure, equipment and facilities, irrespective of the option of a location (10 ha), for the first phase (about 50,000 TEU per year) are:

- 1) handling space and container reloading;
- 2) necessary railway and/or port infrastructure;
- 3) two reach stackers, back-up equipment and one empty handler;
- 4) storage area for 1,000 TEU (about 3.5 ha);
- 5) Ro-La and/or Ro-Ro ramps;
- 6) container depot for emptying, equipment for container repairing, and storage of used containers (2,000 m²);
- 7) parking spot for road freight vehicles.

4.3. Mid-term development strategy of intermodal transport

Balance shifting among the transport modes in favour of environmentally friendly, safer transport, traffic reducing on roads, defines the following objectives for implementation of mid-term strategy for intermodal transport development:

1. strengthening institutional framework and raising the awareness of competent state bodies, administration and legal persons about intermodal transport advantages;
2. making legal framework for intermodal transport through regulations for railway and road transport, road safety, tax relief, environment protection etc;
3. creating the financial support model for the development of necessary capacities for intermodal transport, at first rationally without big investments, utilizing the existing transport infrastructure as much as possible and nearness of major economic and logistic centres;
4. liberalization of intermodal transport activities, introduction of fiscal subsidies in favour of intermodal transport (for related equipment, containers, road vehicles etc.) relief from tax regulations, providing favourable credit arrangements for intermodal transport development;
5. clear defining the roles and relations among all participants in the intermodal transport chain – state, intermodal transport operators, railways, terminal owners, road operators, forwarders, ports etc;
6. defining the structure, models and functions of technological and organizational solutions to intermodal transport terminals (container, RO-RO, hucke-pack terminals), cargo-transport centres, logistical and distributional centres on a unique transport network of the Republic of Serbia, South East Europe and Europe;
7. establishing companies dealing with intermodal transport organization and development, their connecting with European associations for intermodal transport and membership in the international associations.

4.4. Short-term to mid-term development of intermodal transport

Development of market strategies causes directing of freight flows to terminals for intermodal transport which are integral part or in the vicinity of logistic centres, in order to reduce the overall product cost.

Significant freight flows can be in transit through our country if good quality content and services are offered in the terminals in short-term and mid-term period.

The strategy of intermodal transport development in the Republic of Serbia is in line with:

1. sectoral strategies, spatial plan of the Republic of Serbia, projects and initiatives with intermodal solutions introduce competitiveness in the sphere of transport in the Republic of Serbia;
2. HLG Report in the EU transport policy, among its priority project up to 2010 from the field of intermodal transport, listed one project from the Republic of Serbia – number 39 (list 3): Belgrade Intermodal Logistic Platform;
3. Business plan of PE "Serbian Railways" 2006-2010 – Strategic Plan, where the construction of terminals in Belgrade, Niš, and Novi Sad has been anticipated, as well as procurement of reach stackers.

Specific objectives, important for strategy and action plans defining in the sphere of intermodal transport in the Republic of Serbia are:

1. development and intensity growth of the intermodal transport in the Republic of Serbia through the action plan for intermodal transport development and the model of financial support;
2. coordinated execution of activities in the sphere of intermodal transport in the Republic of Serbia by the ministry competent for traffic affairs and other state bodies;
3. up to 2010 harmonization with EU intermodal transport legislation from 2005 should be completed;
4. establishing the main capacities of intermodal transport terminals through enhanced existing transport infrastructure of all transport modes at the concept of intermodality;
5. introduced market oriented management with skilled and professional staff providing approach to competitive operators.

5. Air transport – vision for 2015

In 2015, the Republic of Serbia is an integral part of the European aviation system. The role of the aircraft as the main means of transport for transport distances longer than 45 minute flights has increased. Significant market growth gives the companies operating on it good prospects for profitable and successful future and therefore in 2015, the companies settled in the Republic of Serbia offer transport towards main European cities. Belgrade has become the regional hub for air transport in the South East Europe. Aviation development resulted in competitive market, increasing the number of passengers and of the amount of cargo at the territory of the Republic of Serbia.

5.1. The framework of successful aviation

The agreement “The Open Skies” will ensure development of competition and thus lead to more direct flights and flight frequency to airports on the territory of the Republic of Serbia. On the other hand, the open market means greater pressure on carriers operating in the Republic of Serbia, since there is no possibility for any privileges on the open and free market of aviation services.

However, PE “JAT Airways” and other carriers in the Republic of Serbia will find their specific segments on the growing market of these services, where they can use their own competitive advantages. Hence, introduction of feeder and commuter services in air transport is anticipated i.e. adjacent lines connecting smaller centres, via transit centres, with world line network.

Strong aviation companies with their seats in the Republic of Serbia will use competitive advantages of Belgrade being a regional hub for air transport in the South East Europe.

As far as the number of charter flights is concerned, the increase will depend on GDP growth in the Republic of Serbia (anticipated growth of 100% by 2015). The winter season in air transport will be significant for charters which transport passengers to the Republic of Serbia.

General and business aviation will have increased importance in the future. Significant increase may be expected in the sector of these aviations.

Belgrade airport “Nikola Tesla” should form a separate terminal with corresponding services for this type of traffic.

5.2. The airline companies with seats on the territory of the Republic of Serbia - competitive in the region and in Europe

Considering new regulations and market deregulation, airline companies with seats on the territory of the Republic of Serbia will operate in conditions of free competition in the future.

Low Cost operators will constantly increase their share on the air transport services market. Only the largest traditional operators (British Airways, Lufthansa, Air France/KLM) will have good prospects to survive on highly competitive market. On the other hand, very flexible and cost-efficient small companies still may find their positions on certain segments of the air transport market.

Airlines with the seats in the Republic of Serbia, fulfilling the prescribed quality and safety standards, may use their competitive advantages regarding geographical position, relatively low workforce expenses, high technical and safety level and well educated and motivated people.

PE "JAT Airways" is likely to be a leading carrier in the region of the South East Europe, since it is considered a highly reliable, secure, and relatively efficient airline company, which opens the possibility that it can operate as the main operator of the regional aviation hub in the South East Europe and to connect the Republic of Serbia with major cities in Europe and the world.

Other airline companies in the Republic of Serbia will expand until 2015, operating as Low Cost, regional, tourist or taxi operators.

"JAT-Tehnika" Limited Company for aircraft maintenance and repair, Belgrade, as a technical service for aircraft maintenance can keep and strengthen its position on the international market of specific aviation services, since it has necessary capacities, expertise and licenses.

5.3. Airports - hubs oriented towards users

The Republic of Serbia has excess infrastructure capacities in air transport sector in relation to the size of the territory and the population distribution.

The Republic of Serbia does not have the potentials for more than two airports, but this should not discourage a possible initiative of local communities to take over, develop and maintain the infrastructure for general and business aviation at their own expense, if they estimate that they have the needs, interests and means.

Airport "Nikola Tesla" in Belgrade will be the aviation gate of the South East Europe, being the largest airport in the Republic of Serbia and the region, and will be the leading one for all scheduled, tourist and business flights in the Republic of Serbia. The completed modernization of the runway and passenger terminals, the expansion of cargo terminals capacities and favorable conditions for the airport expansion provides the grounds for its development into an important regional transit and terminal, passenger cargo hub.

High level of expertise and very good geographical position allow establishing a regional centre for Air Traffic Management, airport services, aircraft maintenance and staff training at the same airport.

Airport "Konstantin Veliki" in Niš will develop for incoming and outgoing tourist flights and as an alternative airport.

The change of structure of airport companies and of management system according to user and profit orientation should be the main goal in the next ten years and will be achieved through the following manners: the introduction of system of charges which meets the modified requirements of operators and reflects the future airport strategy; better and faster transport connections with cities in the gravitation area of the airport; modern marketing in cooperation with business tourist agencies and other business subjects and modern concept of non-aviation activities - retail sale at the airport and management of the lands around the airport (business park, hotels, parking, conference center, etc.)

Specific goals, important for the definition of strategy and action plans of the subjects in the air transport sector in the Republic of Serbia, are:

1. harmonization of regulations regulating the sphere of air transport with the European Union regulations;
2. establishing feeder and commuter services in air transport;
3. establishing railway connection from Belgrade city centre to Airport "Nikola Tesla".

VII. FROM VISION TO REALITY

1. Strategy application and implementation

Political and public consensus in the adoption of goals and concept of the Strategy postulates is the main condition for the application and implementation of the Strategy. Consensus is rather important among different authority levels at planning and realization of capital projects of public interests in the transport system of the Republic of Serbia.

The ministry competent for traffic affairs issues guidelines for the implementation of the Strategy, and economic entities from the field of transport should apply directly the guidelines through planning and developmental documents.

The most important segments of this procedure are implementation of planning and budgeting procedures in all segments of the transport sector and responsibility for the implementation of these plans and the Strategy as a whole.

The realization of the Strategy and monitoring of fulfillment of its goals is done by the ministry competent for traffic affairs, and by the end of 2010 the assessment of the realization of the Strategy together with measures' proposal will be prepared.

All relevant sub-systems, state bodies, organizations and agencies, on the basis of the Strategy, must apply the same principle of planning and permanent realization monitoring and hierarchical reporting on the results achieved must be mandatory.

The Strategy will be a basis for the preparation of General (Master) plan of transport development by a consultant selected on a tender. The intended funds for the preparation of General (Master) plan of transport development have been allocated from CARDS programme.

The Strategy represents the basis for preparation and enactment of strategic documents which refer to certain transport modes, i.e. individual segments of the transport system.

In cooperation with competent international institutions, transit flows and requests should be recognized and evaluated, so that they can be balanced and split by modes to the mutual advantage of the population, state and operators.

Traffic safety will be increased through complex transport policy instruments, which will implicitly ensure also the reduction of external costs. Better organization and other adequate measures will provide reduced expenses related to dealing with persons injured in accidents or car crashes and decreased damages.

For the purpose of monitoring external costs, close cooperation should be established among the ministry competent for traffic affairs, ministry competent for internal affairs, insurance companies, health services, health services, social care services, as well as automobile associations, with one uniform data base.

Adjustment of regulatory rules in the sphere of transportation of dangerous cargos with European agreements on international transportation of dangerous goods (ADR, RID, ADN) and EU regulations, contributes to higher level of traffic safety.

Due to a specific kind of the goods being transported and danger it makes for human lives, property and environment, it is of utmost importance the organization of a quality control system of all participants in transport process in order to prevent potential risks.

The adoption of new regulations and adequate institutional capacity building for their effective implementation allows effective transport system functioning.

The total amount of external transport costs in the Republic of Serbia is estimated at only 2.6% of GDP (the EU average is 4.6% of GDP), and about 90% originates from road transport.

Research, monitoring and analysis of external transport costs are preconditions for better long-term shaping of transport policy instrument.

Special attention should be paid to the analysis and gradual introduction of external costs charging.

Timely analysis and preparation of traffic rerouting plans should be made on all levels. Rerouting may occur due to various reasons (storms, disasters, and major works).

The strategy of development and introduction of ITS in the Republic of Serbia should define competencies, development and sources of financing, which will provide the high level of services, increase the transport safety and shorten the delays and waiting time on the network of state roads, railways and inland waterways.

While planning the polycentric development of local transport networks, subsidiary conditions are to be considered in the highest degree. It is suggested that transport policy instruments should be used to stimulate alternatives to road car transport (public transport, new rail systems, non-motorized transport) and the transfer of demand from individual to public transport, especially in urban and suburban passenger public transport.

Stimulative models of tax policy and price policy must be introduced, supporting the realization of strategic goals of progressive development of railway, waterway, intermodal transport and urban and suburban passenger public transport, which will provide adequately the alternative to the excessive development of road transport.

2. Harmonization of legislation

The harmonization of legislation with Acquis Communautaire in the transport sector has the following aim:

1. establishment of a framework for the transition to a free market system, with controlled influence on the models of transport infrastructure management (structural reforms);

2. harmonization of the national regulations with EU references, especially regarding institutional - legal organization of the regulatory function, and technical, technological and safety standards of operation.

For the implementation of the Strategy before all the following should be regulated:

1. fair determination of expenses of infrastructure use (internalization of external costs);
2. fast restructuring of public enterprises, as well as their full or partial privatization in line with the attitude to reducing subsidies, which will contribute to transport system development and more efficient usage of comparative advantages of every transport mode;
3. controlled commercialization / privatization of service providers;
4. assurance of operators' competitiveness and prevention of monopoly;
5. tax policy and price policy in compliance with the long-term strategic goals of sustainable development of transport system, using the principles of integration and intermodality;
6. introduction of private sector in the investment programs of transport infrastructure.

3. Educational and information support

Long-term development of railway, road, inland waterway, air and intermodal transport in the Republic of Serbia is primarily conditioned by high-quality transport, logistic and economics education. All executive, professional and administrative staff needs additional continual education in the field of management, organization and informatics.

Raising the awareness on advantages and necessity of introduction of modern transport technologies is needed at all levels with the aim of our country's entering the European transport flows.

Complying with *Acquis Communautaire* requires the familiarity with the European legal heritage and the implementation of directives, regulations, decisions, declarations, resolutions and political statements adopted by a relevant body of EU.

It is especially important to ensure spreading and distribution of available information and research results, in the first place by a high-quality informatics environment, based on joint statistical and analytical management and on mandatory data collection.

Hence, it is necessary to form special internal units in competent ministries, bodies, organizations and public companies with the main task to create, maintain and manage relational databases and management of the Intranet network.

4. Action plan

The Action Plan consists of goals, activities and activity holders in implementation of the Strategy of railway, road, waterway, air and intermodal transport development in the Republic of Serbia from 2008 to 2015.

The Strategy will be implemented by annual programs the Government will adopt in a current year for the next one and which will comprise activities from the Action Plan and the dynamics of realization of the activities with the estimation of financial means necessary for the Strategy implementation in the relevant year of the annual program.

Financial needs which are planned for the Strategy implementation will be financed partially from the Republic of Serbia budget and from National Investment Plan, and partially from long-term credits of international financial institutions, IPA program, bilateral grants and PPP.

VIII. FINAL PART

The Strategy shall be published in the "Official Gazette of the Republic of Serbia".

05 Number:

In Belgrade, on 27 December, 2007

GOVERNMENT

VICE PRESIDENT