

**STRATEGY**  
**FOR THE**  
**DEVELOPMENT OF THE TRANSPORT SYSTEM**  
**OF THE REPUBLIC OF BULGARIA**  
**UNTIL 2020**



**MARCH 2010**

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## INTRODUCTION

Transport plays a major role in the development of every modern society as a means for economic development and a prerequisite for achieving social and regional cohesion. The transport sector in Bulgaria is of an exceptional importance for raising the competitiveness of national economy and for providing services to its citizens. The fact that by 2008 the Bulgarian transport system supported, on a daily basis, an average of 2.54 million passenger trips and the transport of 274,000 tonnes of freight, is an indicative example of the importance of transport. Transport and communications generate 11.7% of the gross value added in the country and directly employ more than 138,000 persons (*Source: National Statistical Institute – NSI, Employees under labour contract*). The development of the transport sector is of a paramount importance for enhancing Bulgaria's foreign trade relations and of tourism.

The demand for transport services – both passenger and freight – have been on the rise over the last several years, with a parallel demand for a higher quality services. In this aspect, the objective of the state administration, represented by the Ministry of Transport, Information Technology and Communications, is to establish legal and economic conditions for the provision of transport services and of the relevant infrastructure matching the expectations of the users.

A well designed and successfully applied transport policy contributes to improving the quality of life. There are many examples, in a global plan, of successfully implemented measures for the development and modernisation of transport systems. The design of mechanisms for improving the efficiency of transport, in compliance with the principles of its sustainable, secure and safe development, matching the requirements of users, is a proper step in the right direction.

This paper represents a long-term strategic document, which aims to outline the most important aspects for the development of the transport system during the next ten-year period. Medium and short-term programmes and schedules will be drafted on the basis of the priorities and measures set out in the Strategy. Medium-term programmes (4 years) will schedule the activities, projects and tasks of the incumbent governments. Short-term programmes represent action plans for the current year with specified deadlines and persons in charge. The relevant allocations from the state budget are defined in three-year forecasts, compliant with the trends for development as specified in the respective documents as stated herein. In this aspect, the implementation of the measures as recommended in the Strategy will not have a direct and/or indirect impact on the state budget.

All strategic documents for the next ten years should take into account this Strategy.

The format of the Strategy for the development of the transport system of the Republic of Bulgaria until 2020 complies with the format of strategic documents adopted by the European Union. The document is based on the analysis of the existing situation and on the trends for development, as well as on factors, which are internal or external for the sector. The document takes into account the specific domestic conditions and needs, as well as with the following national strategic documents (listed in a chronological order):

- National ISPA strategy for the Transport sector
- National regional development strategy of the Republic of Bulgaria for the period 2005 – 2015
- Strategy for the development of the transport infrastructure of the Republic of Bulgaria by 2015

- National strategic reference framework 2007 – 2013
- Operational Programme on Transport 2007 – 2013
- Operational Programme Regional development 2007 – 2013
- National programme for the development of public ports by 2015 (draft)
- National strategy for sustainable development (draft)
- National long-term programme for energy efficiency until 2015
- National long-term programme to encourage the use of biofuels in the transport sector 2008 – 2020
- National strategy for sustainable development of tourism in the Republic of Bulgaria 2009 – 2013
- National strategy for the environment 2009 – 2018
- Programme of the Government of European development of Bulgaria
- General Transport Master Plan for Bulgaria.

The strategic document is fully compliant with the latest trends regarding the development of the European transport policy. Its main objective is to outline the major tasks facing the Bulgarian transport system on its way to a successful integration within the European transport system. The following major strategic documents were used for the purposes of drafting this Strategy: The EC White Paper “European transport policy for 2010: time to decide”, the Mid-term review of the White paper in 2006, the Community Guidelines for the development of the Trans-European Transport Network, the Green Paper: Towards a new culture for urban mobility, as well as the Communication of the Commission on “A sustainable future for transport: Towards an integrated, technology-led and user-friendly system”, which outline the European transport policy.

The Strategy adopts the basic European principles of:

- Harmonised development of all components of the transport system
- Elimination of infrastructure bottlenecks
- Putting consumers in the policy focus
- Management of the consequences from globalisation processes.

This document complies also with the Lisbon Strategy, whose main objective is to achieve a more dynamic and more competitive economy. From the point of view of transport, the Strategy aims at the further development and modernisation of the transport infrastructure, the liberalisation of the market for transport services and the large-scale application of information and telecommunication technologies.

A special attention is paid, within the framework of this Strategy, to the cohesion policies of the European Union, whose objective is to reduce differences in an expanding union, and on the strategic aspects of its implementation, used for defining investment policies. Achieving a full cohesion – political, economic and social – between the expanded Europe and Bulgaria, as a part of Europe, and the integration of the Bulgarian transport network into the European system is a prerequisite for a genuine freedom of movement of products, people and services, as well as for the economic development and unification of peripheral and isolated regions to the central parts of Europe.

## 1. STRATEGIC FRAMEWORK FOR PLANNING THE DEVELOPMENT OF THE TRANSPORT SYSTEM

The major principles used in drafting this Strategy are not specifically sector-oriented, as they cover the following general aspects:

➤ **Transport:**

- Integrated approach, treating the transport sector as an entity and accounting for the interconnections between the various transport modes, which are both competing and interacting
- Sustainable and balanced development of the different transport modes
- User oriented approach
- Limitation of the direct dependence between economic growth and increase in transport demand.

➤ **Economic:**

- Harmonisation of the conditions for achieving a loyal competition
- Efficient use of available resources
- Payment of all costs (including the full amount of social contributions) on the principle “the user pays”.

➤ **Environmental:**

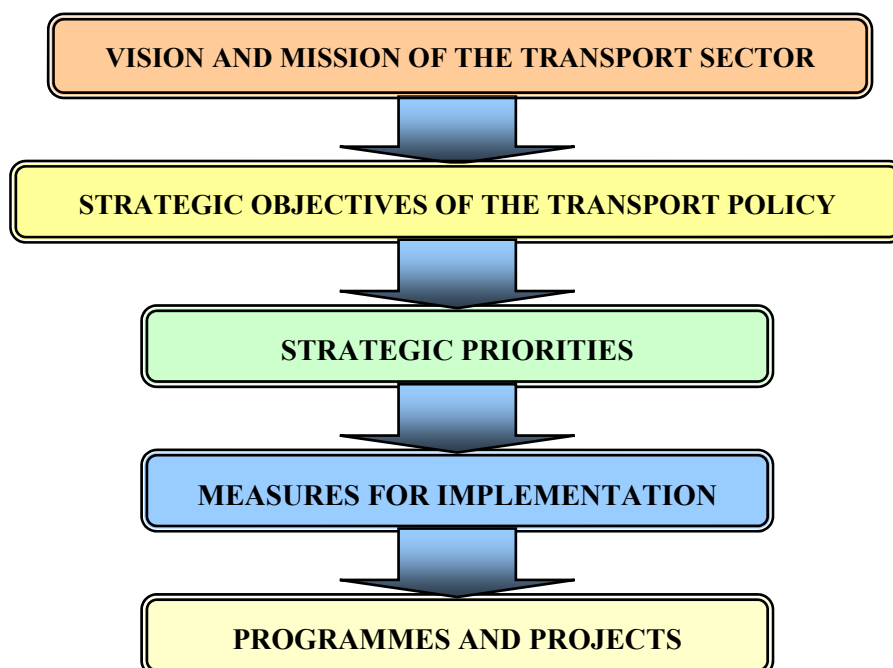
- Limitation of the harmful influence of transport on the environment, habitat and climate
- Energy efficiency
- Compensation of inflicted damages by the inflicting party.

➤ **Social:**

- Equal conditions for access to public services
- Mandatory public services
- Prevalence of the public over individual and/or local interests
- Protection of public health, increased transport safety and improved quality of life.

In line with this approach, this Strategy is not a mechanical sum and a consolidation of existing programmes and projects, as it follows a logical approach from the general to the partial, which includes the following steps:

Figure 1



The transport strategy consists of a set of objectives and the means for achieving these objectives. The compliance among them is a prerequisite for practical application and implementation of the transport policy as a dynamic component of economic development and for the integration of Bulgarian transport system into the European network.

The transport policy of the Republic of Bulgaria pursues the global mission of the transport sector, developed into three horizontal objectives of general validity, which have found their more concrete dimensions in specific vertical strategic priorities. In its turn, the methods for implementing the vertical priorities have been specified in individual details by means of specific measures. The logical links between vision, mission, strategic objectives, priorities and measures is presented visually on figure 3 on page 68.

The tools used to elaborate the Strategy for the development of the transport system of the Republic of Bulgaria until 2020 include in-depth analyses of internal and external factors, influencing the system, as well as of the development trends on an international, regional, national and provincial level, and also the analysis of the strengths and the weaknesses of the sector, of the opportunities and the threats for its development (SWOT analysis). The major conclusions of these analyses are presented further in the text.

## 2. MISSION OF THE TRANSPORT SECTOR AND VISION FOR ITS DEVELOPMENT

According to the strategic vision for the development of the country, as defined in the National Strategic Reference Framework, Bulgaria is facing the challenge to achieve a sustainable genuine convergence through high economic growth rates based on investments, a substantial increase of productivity and improvement of competitiveness. In order to negotiate the risks, which may compromise the efforts to maintain a high and stable economic growth, the economic policy must be focused on improving the quality of the physical infrastructure (by enhancing connectivity and accessibility), on investing in human capital and raising the standards of education and healthcare in order to maintain the quality of the work force, and remove the inefficiency in the performance of the administration and the market in order to provide incentives for entrepreneurship and investments and support a balanced territorial development.

Achieving this vision implies that Bulgaria must achieve two strategic objectives in the medium term:

- To achieve and maintain a high economic growth rate by a dynamic economy in compliance with the principles of sustainable development
- To improve the quality of the human factor and reach employment, income and social integration levels, which would assure a high living standard.

In full compliance with the national vision and priorities, the mission of the transport sector has been formulated as follows:

**Bulgaria's transport sector must support the economic and social development of the country by:**

- **Providing efficient (with maximum benefits), effective and sustainable (with minimum external influences) transport**
- **Supporting a balanced regional development**
- **Assisting in Bulgaria's integration in the European structures, taking into account its crossroad location and its transit potential.**

The following **vision** for the development of the transport sector has been derived on the basis of the principles mentioned above:

**By 2020, Bulgaria should have a modern, safe and reliable transport system in order to satisfy the demand for high-quality transport services and to provide better opportunities for its citizens and business.**

Modernising the transport system is a prerequisite for its successful integration within the European transport system. It represents also an important prerequisite for improving the quality of life, for rapid economic growth and for improving the environment. The sustainable development of public transport, as a component of the development of the sector as a whole, is a precondition for increasing the population mobility and reducing the social isolation of specific groups.



### 3. STRATEGIC OBJECTIVES OF THE TRANSPORT POLICY

The mission of the transport sector was further developed in the strategic policy objectives, as follows:

- **Achieving economic efficiency** through:
  - Raising the competitiveness of Bulgaria's transport system
  - Creating the conditions required for a sustainable growth of domestic and international transport at a higher energy efficiency
  - Assuring the conditions for a loyal competition among and within the different transport modes.
  
- **Development of sustainable transport sector** through:
  - Reducing the negative influence of transport on the environment and the climate
  - Integrating Bulgaria's transport system into the European network
  - Assuring a high level of safety and security of the transport system.
  
- **Regional and social cohesion improvement** through:
  - Coordinated development of the transport sector in compliance with the economic and social development at a national and regional level
  - Improving, at a regional level, the access to the transport corridors and creating incentives for the development of border regions
  - Assuring the mandatory public transport services at affordable prices.

#### 4. THE ROLE OF THE STATE

The objectives of the transport policy as described above may not be achieved only by actions initiated by the state, as they require the efforts of all participants in the transport process. Restructuring the economy, including the transport sector, implies that the state must relieve itself of non-inherent functions as owner and manager, and that these functions must be limited to organisation and control. In this sense the responsibilities, obligations and functions of the state must be outlined clearly and unambiguously.

The obligations of the state are as follows:

- Drafting and applying of the general policy for the development of the transport sector as a whole and in terms of individual transport modes, and the related market analyses and forecasts
- Drafting, coordination and implementation of the policy to increase safety and security of all transport modes and of the transport system as a whole
- The development, modernisation, maintenance and organisation of the operations of the national transport infrastructure
- Regulation, application of the law and the control over the conditions for competition, the access to the market, the profession and transport services
- Regulation of the policy in the sphere of infrastructure charges in a competitive market environment
- The development of national transport legislation in compliance with European norms and requirements
- Reorganisation and modernisation of the sector institutional system
- Control on the management of the public state property in the transport system
- The application of a national transport policy, creating incentives for the use of intelligent transport systems (ITS)
- The definition of, and the supervision over the application of technical standards for planning, design, construction, maintenance and operation of the transport infrastructure with the objective to assure the safety of users, and the homogeneity and technical compatibility of the networks
- The definition of, and the supervision over the application of technical standards for transport vehicles
- The organisation of the preparedness of transport for operations in crisis conditions and for transport support for the defence
- Assuring the compliance with the commitments assumed by force of bilateral and multilateral agreements
- Coordination of transport and regional development
- Management of the human resources in the transport sector, including the introduction of European standards for personnel training.

The main road and railroad networks, as well as the public transport ports and the civil airports will remain **public state property**. Some components of the transport infrastructure, however,

may and should be transferred for operation by the private sector with guarantees for public services and non-discriminatory access to such services.

The development of transport as dictated by the needs of economy and society requires the mobilisation of substantial financial resources. The state is responsible for the research, development, assessment and application of various financial instruments and schemes for assuring these resources from local and/or foreign financial funds and/or institutions and from the private sector within public-private partnership mechanisms.

## 5. INSTITUTIONAL FRAMEWORK OF THE TRANSPORT SECTOR

The Minister of Transport, Information Technology and Communications, assisted by the staff at the Ministry, is in charge of implementing the state policy in the field of transport, and coordinates the process of drafting and implementation of a strategy for development and restructuring of transport.

The Ministers of Transport, Information Technology and Communications and of Regional Development and Public Works are in charge of implementing the state policy for development of the road infrastructure.

Executive agencies have been established within the Ministry of Transport, Information Technology and Communications, which function as regulatory bodies for the individual transport modes:

- **The Executive Agency “Railway Administration” (EA “RA”)** coordinates and supervises the activities in the field of the railway transport and executes the functions of a regulatory body in the railway transport. The main functions performed by EA “RA” are: control over the access to the railway infrastructure and the obligations to provide public services; inspection of the compliance with the requirements for the issuance of licenses and permits pursuant to the provisions of the Railway Transport Act; issuance of personal qualification licenses to railway transport personnel; drafting of projects for regulatory instruments in the sphere of railway transport.

- **The Executive Agency “Automobile Administration” (EA “AA”)** controls the observance of the requirements set for the stations authorized to perform periodic technical checks of motor vehicles; develops the Republican Transport Scheme; analyzes the effects of the regulatory instruments in the field of automobile transport and assesses the impact of their application; monitors the observance of the regulatory conditions and procedures for public transport of passengers and freight; keeps a register of the motor vehicles attributed to any license issued for public transport of passengers and freight on the territory of the Republic of Bulgaria.

- **The Executive Agency “Maritime Administration” (EA “MA”)** performs the regulatory and control functions of the state in the field of ports, and supervises shipping along inland waterways; control the provision of RIS services for the purposes of shipping traffic; monitors the observance of the norms and standards for avoiding and limiting maritime pollution, adopted by the Republic of Bulgaria; organises rescue and salvation operations; keeps registers of ships, maritime persons, ports and port operators in the Republic of Bulgaria; monitors the observance of regulations related to assuring the security of the ships sailing under the Bulgarian flag and of the ports in the Republic of Bulgaria; submits to the Minister of Transport, Information Technology and Communications motivated positions on investment initiatives for the construction of new and for the expansion of existing public transport ports; approves plans for the delivery and reception of ship-generated [waste](#), coordinates the plans submitted by port operators for actions in case of disasters, accidents and catastrophes.

- **Executive Agency “Exploration and Maintenance of the Danube River” (EA “EMDR”)** organises, manages and controls the exploration and maintenance of the conditions for shipping along the inland waterways of the Republic of Bulgaria in compliance with the national and international law; secures the waterway navigating conditions required for assuring the shipping along the Danube waterway and in the water areas of ports and winter shelters.

- **Directorate General “Civil Aviation Administration” (DG “CAA”)** performs the functions of a civil aviation administration in compliance with the international agreements in the field of civil aviation, which Bulgaria has signed; controls civil aviation, civil airports and flight sites, the civil aircraft, and the air navigation and other installations located on the territory of the state; monitors the observance of the obligations assumed by the airport operators and air carriers regarding the rights of people with disabilities and of people with reduced mobility during air travels.

The following state-owned enterprises (pursuant to the provisions of Art. 63, Para. 2 of the Commercial Code) have been established with the objective to assure the normal operation of the transport system, in which the Minister of Transport, Information Technology and Communications executes the rights of the sole owner of the capital:

- **National Railway Infrastructure Company (NRIC)** is the manager of the railway infrastructure in Bulgaria. The main operations of NRIC are related to providing the railway infrastructure for use by licensed carriers at equal conditions; the development, repairs, maintenance and operation of the railway infrastructure; the collection of the infrastructure fees; drafting the train schedules in coordination with carriers, and in the case of passenger trains – with the respective municipalities; the management of train operations within the railway infrastructure in compliance with the requirements for safety, reliability and security.

- **Bulgarian Ports Infrastructure Company (BPIC)** is managing the infrastructure of the public transport ports of national importance. The main line of business of BPIC is related to the construction, reconstruction, rehabilitation, maintenance and management of the assets, and organisation of operations at public transport ports of national importance; assuring access to these ports; maintenance of the existing and the construction of new approach channels, port water areas, sea and river depots, quays, protective installations, and others; navigation support to shipping in internal sea waters, channels, and port water areas, and services related to traffic and information management to shipping, and RIS services to shipping.

- **Bulgarian Air Traffic Services Authority (BULATSA)** performs the functions delegated by the state related to the management of air traffic and providing air navigation services within the serviced civil airspace in compliance with the Civil Aviation Act and the international agreements in the sphere of air navigation ratified by the Republic of Bulgaria. The main line of business of **BULATSA** is related to air traffic management with the objective to assure safety, efficiency and on-schedule flights within the serviced civil air space.

As mentioned above, the policy of the state in the field of the development of the road infrastructure is implemented by the Minister of Transport, Information Technology and Communications and by the Minister of Regional Development and Public Works. A major role is performed by the **Road Infrastructure Agency**, which is a secondary manager of budget allocations within the Ministry of Regional Development and Public Works.

The Ministry of Transport, Information Technology and Communications is cooperating with a large circle of authorities at an international, national, regional and local level, as well as with non-governmental and civil organisations, with the objective to implement the policies of the state.

## 6. STRATEGIC FACTORS, INFLUENCING THE TRANSPORT SECTOR

Being a service sector, transport depends directly on a multitude of various external factors (economic, social, demographic, political, environmental) with different scopes of impact (international, national, regional and local), which are interacting among them and most frequently have multidirectional influences. In addition, a set of factors may have a positive impact on a specific transport mode and a negative impact on another mode. This section consolidates the major factors and conclusions regarding their future influence on the transport sector as a whole.

### 6.1. Factors, which are external for the transport sector

#### 6.1.1. International factors

- In a long-term perspective, the trend towards globalisation of world economy is expected to persist, and the Bulgarian economy and transport sector must be prepared to meet this challenge and make the best use of the expanding opportunities. Transit between EU and Asia will develop further, and Bulgaria should be able to attract a major share of this traffic.

- It may be claimed with a substantially high degree of certainty that, within the period of forecasts of this strategic document, a stable trend towards an increase of petroleum products prices should be expected, which will influence the prices of transport services and the market share of the individual transport modes, and will boost demand and supply of alternative technological and engineering schemes (fuels, engines, etc.).

- The increasing attention to transportation security may affect transport and trade flows, redirecting them to the “more secure” transport networks and operators. This fact requires active measures for increasing the security of the Bulgarian transport system, and most of all of ports and airports. The importance of security is even higher in view of the fact that Bulgaria is responsible for the security of 1,647 km of the external borders of the Community.

- The systematic application of the covenants for preservation of the environment, which Bulgaria has joined, will result in:

- Increased operational costs and price of transport services
- Increased investment costs, and costs for the maintenance and operation of the transport infrastructure.

- Bulgaria’s favourable geographic location by itself does not provide guarantees for the development of international transit transport. Substantial investments are required first for improving and maintenance of the existing infrastructure, and – to a lesser extend – for the construction of missing infrastructure components. In this aspect, the proper identification of priorities in the short, medium and long term is of a paramount importance in order to maximize expected benefits by efficiently utilising the limited available funds and by taking into account the priorities of the EU and of the neighbouring states.

- Due to the elimination of the borders after the accession of Bulgaria and Romania to the EU, there was a sharp rise in the passenger flows between Bulgaria and the EU member states in general, and between Bulgaria, Romania and Greece in particular, especially in the border regions, as former international traffic flows were transformed into EU internal traffic. The elimination of the borders has already manifested its positive influence on development, and

most of all on Pan-European Transport Corridor IV and partially on Corridor IX. A similar influence on Corridors VII, VIII and X is expected to become also apparent.

- The political stabilization of the Balkan region, as well as the construction of important infrastructure facilities in Southeast Europe – like the railway tunnel under the Bosphorus and the combined bridge across the Danube between Vidin and Calafat – outlines a tendency towards an enhanced demand for transport services, increased intermodal and transit transport through the territory of Bulgaria, and a need to integrate the transport networks of the individual states.

### **6.1.2. National factors**

- After the initial period of transition in Bulgaria's Euro-integration process and after overcoming the consequences of the global economic crisis, the expected sustainable economic development during the period, covered by the Strategy, will result in a growth of transport demand.

- There is a worldwide shift from transporting large volumes of low-price bulk materials, oriented mainly to railway and waterborne transport, to smaller-volume general high-value freight, oriented towards road transport. This shift is the main factor, explaining the changes in the distribution of traffic among the various transport modes, and the validity of this factor is omnipresent. This trend, which will emerge because of the restructuring of the national economy, will require reorganisation of the structure, the management and the operation of the railway transport as well as partially of the waterborne transport, and will assure a higher flexibility, operational efficiency and adequate performance in a changing market environment.

- The long-term perspectives for the development of the major sectors of industry are expected to result in a decline in the demand for transporting raw materials and products by railway and waterborne transport.

- The development of the energy sector by 2020 provides for preserving or even a slight rise in the demand for internal railway freight transport.

- The positive trends in the development of light industry by 2020 outline an expected rise in the demand for freight transport by road, mostly in domestic hauls, and to a limited extend within the EU.

- The perspectives for the development of agriculture outline a slight increase in the demand of transport services in favour of road transport.

- It is expected, because of Bulgaria's further development as a major European tourist destination that the smooth rise of international travels (mainly by air and road) will continue and level out in a medium-term perspective.

- Because of the constantly decreasing population and the limited domestic market, a relatively lower growth of domestic freight transport should be expected. The demographic characteristics and forecasts presuppose a relatively low level of utilisation of the existing transport infrastructure. At the same time, the application of the principle "user pays for operation and maintenance of infrastructure" raises the problem of excessively high infrastructure charges, especially for the railway network, which will have to be paid by the passengers and by the operators. In a medium to long term, a solution will have to be found to this problem by rationalizing the infrastructure networks and optimising maintenance operations.

- In a medium to long-term perspective, it may be expected that the historically established stereotypes of social behaviour will change, which will lead to an increase of commuters and medium-distance travels for work or education. This implies that advance measures must be

taken to prevent an elemental increase of commuting by private motor vehicle and the related problems of network congestion and social fallout.

- The relatively low living standards restrict the mobility of population, and in a short-term perspective will continue to have a negative impact on the intensity of passenger traffic. The observed trend towards a gradual increase of the gross domestic product (GDP) per capita and of the average annual salaries after Bulgaria's accession to the EU indicates that in a medium to long-term perspective there may be an increase of the demand for passenger travels by private or public transport means.

- The environmental problems generated by transport imply, in a short to medium-term, the initiation of the following urgent measures:

- The redirection of transit and mainly of the heavy truck traffic to routes outside urban agglomerations (bypass and ring roads).
- The renewal of the rolling stock in the transport sector by introducing energy efficient and environment-friendly vehicles.
- Upgrading the transport infrastructure to a state, which would assure an optimal, more environment-friendly and energy saving mode of operation of the vehicles.

In a long-term perspective, the increased awareness of the public regarding the protection of the environment and the need to reduce the negative impact of transport on global climate will impose strict requirements for the identification and application of measures to reduce the use of fossil fuels and provide incentives for the large-scale use of alternative fuels and energy sources (hydrogen, electricity) by transport vehicles, to reduce the growth of urban motor vehicles traffic and to provide incentives for the use of environment-friendly transport modes.

- Balancing between the needs of the infrastructure and transport services at an internal regional level (region of planning, province, municipality) requires close coordination between regional development and the transport sector by clearly identifying and ranking of expenses and the benefits for the society and for the economy.

## **6.2. Factors, which are internal to the transport sector – current state of the transport sector**

### **6.2.1. Demand for transport services**

- The demand for freight transport services during the last several years varied above the level of 100 million tonnes per year, and of passenger travels – above the level of 950 million per year. According to preliminary data for 2008, 80% of the passenger travels were within the confines of cities. There is no stable trend of change, although in a long-term perspective an increase of demand may be expected because of the improving economic and social situation in this country.

- The demand for domestic freight transport is relative stable, varying around 82 million tonnes per year, which accounts for 74% of the total demand for freight transport. This demand is met primarily by road transport and to a lesser extend by the railway transport, which is the preferred means for bulk cargoes over long distances. Waterborne transport is practically not used for domestic transport.

- The demand for international freight transport services for export and import, which is met predominantly by sea shipping, is relatively stable with a trend towards an increase. A tendency towards increasing the demand for international freight transport services by road and



railway transport has emerged as a result of the restructuring of the economy and foreign trade orientation of this country, and this tendency is expected to persist.

- The demand for transit transport services, mainly by road transport, and to a lesser extent by rail, is relatively stable with a slight tendency towards an increase. The volume of transit through ports is minimal. Improving the parameters of the Danube waterway and the elimination of bottlenecks along the Bulgarian-Romanian section of the river will create conditions for increase of the transit operations and will result in a more efficient utilisation of the Bulgarian river ports along the Danube. It may be expected in the future that transit transport will increase mainly from Western and Central Europe to the Middle East.

The data about the goods carried (thousand tonnes) and the transport performance (million tonnes-km) for the period between 2003 and 2008 is presented in the tables and charts below.

**Table 6.2.1.1.: Goods carried by different transport modes, 2003 – 2008, thousand tonnes**

Transport modes	Goods carried – thousand tonnes					
	2003	2004	2005	2006	2007	2008*
Railway transport	20 070	20 387	20 298	21 882	21 905	19 716
Road transport	54 743	53 530	60 418	65 212	72 156	65 143
Maritime transport	12 065	13 097	13 758	12 862	12 833	10 828
Inland waterway transport	2 107	2 686	2 557	2 265	4 021	4 466
Air transport	13	24	21	13	2	5
<b>Total</b>	<b>88 998</b>	<b>89 724</b>	<b>97 052</b>	<b>102 234</b>	<b>110 917</b>	<b>100 158</b>

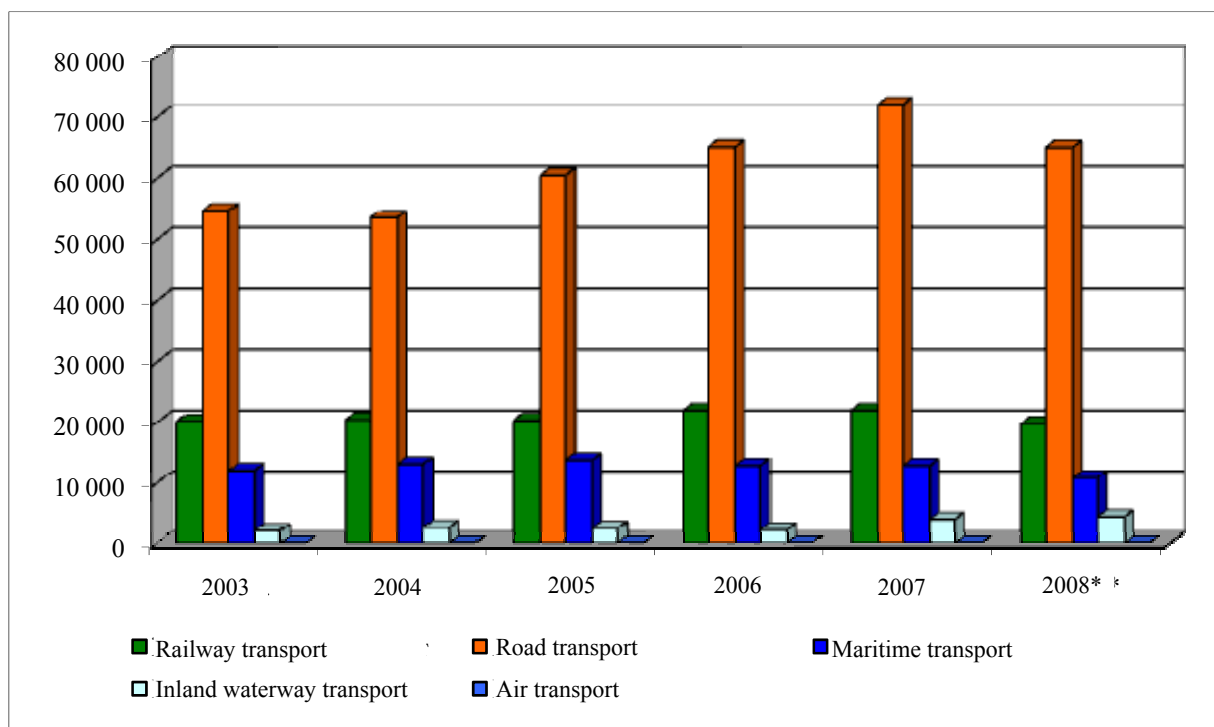
Source: National Statistical Institute (NSI)

\*Note: The data for 2008 is preliminary<sup>1</sup>

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<sup>1</sup> Data is treated as preliminary when obtained from “Statistical Reference book 2009” published by the NSI and from other periodic publications. It is generally accepted that data will be treated as final, when the information is obtained from the “Statistical Yearbook 2009”, which will be published by the NSI in 2010.

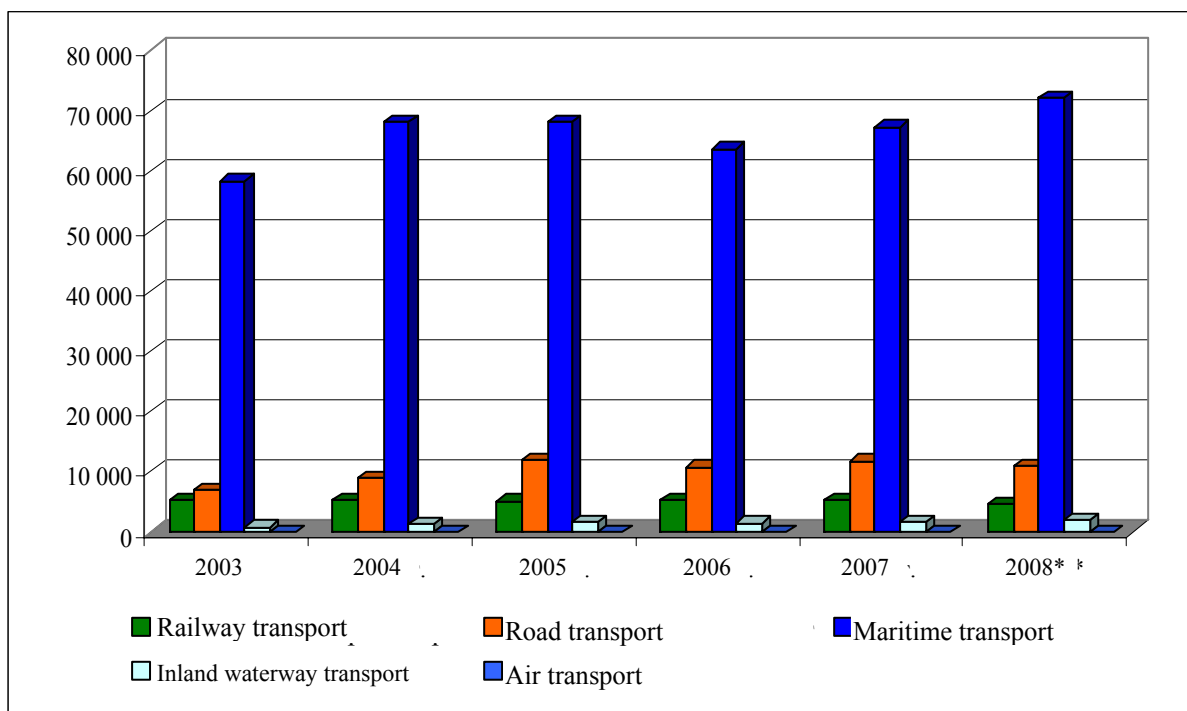
Chart 6.2.1.1.: Goods carried by different transport modes, 2003 – 2008, thousand tonnes



Source: National Statistical Institute (NSI)

\*Note: The data for 2008 is preliminary

Chart 6.2.1.2.: Transport performance, 2003 – 2008, million tonnes-km



Source: National Statistical Institute (NSI)

\*Note: The data for 2008 is preliminary

- Assessing the total demand for passenger transport in the country is impossible due to the absence of a national passenger mobility survey, covering both public and private transport. A tendency has emerged during the last several years towards a decline in the travels by public transport between towns. The demand is satisfied predominantly by bus transport, which is the preferred mean for shorter distances, and to a lesser extent by the railways, which are preferred for longer distances and by certain social groups using preferences. Air transport has no practical importance for meeting the demand for domestic passenger travels.

- The assessment of the demand for commuter and urban transport of passengers is impossible, as there is no national passenger mobility survey. There exists a tendency towards a gradual decline in the demand for interurban transport of passengers by public transport. At the same time, there is a major growth in the number of newly registered passenger motor vehicles, which implies that the number of travels by private motor vehicles has increased.

- The demand for international passenger travels from and to Bulgaria is growing at a steady rate and is met predominantly by cars, buses (to neighbouring states and to relatively short destinations) and by air transport. More than 50% of the travels are to neighbouring states, with a tendency towards an increase in the number of travels to other EU member states.

- The demand for transit of passengers through the country has been growing steadily and is dominated by travels by citizens of neighbouring states. The demand is met predominantly by cars and buses.

The data about the passengers carried (thousand per year) and the transport performance (million passengers-km) for 2003 – 2008 is presented in the tables and charts below.

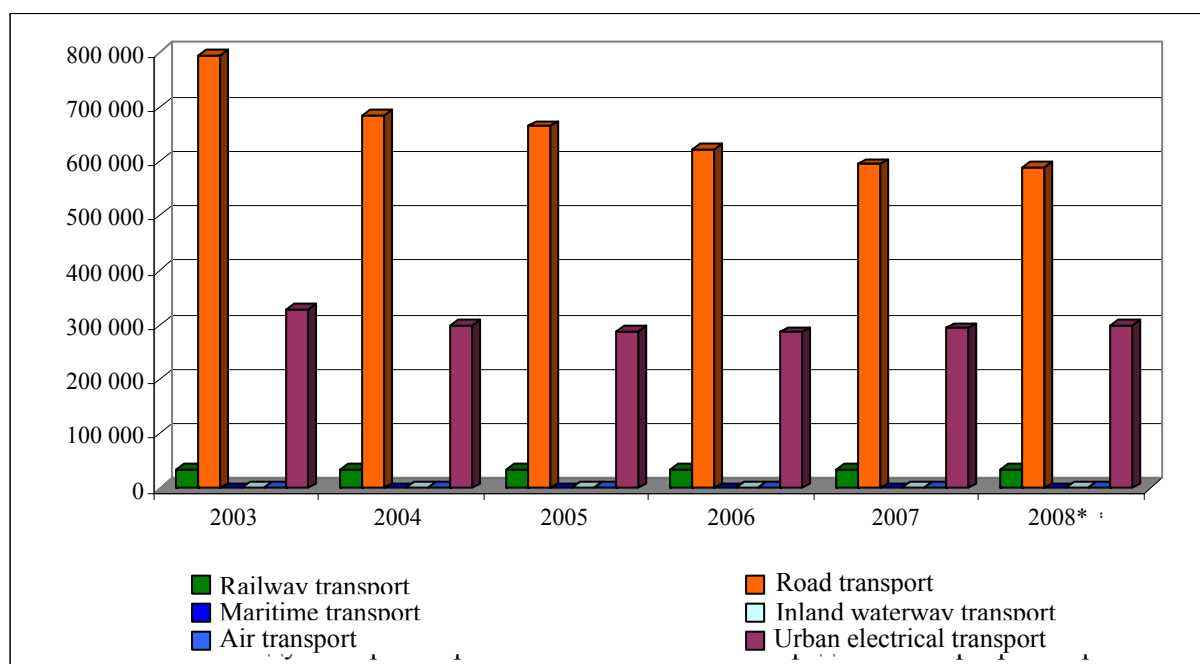
**Table 6.2.1.2.: Passengers carried by the different transport modes, 2003 – 2008, thousand**

Transport modes	Passengers carried – thousand					
	2003	2004	2005	2006	2007	2008*
Railway transport	35 206	34 149	33 748	34 113	33 283	33 759
Road transport	795 066	685 233	664 266	623 249	594 879	589 786
Maritime transport	6	3	6	5	11	7
Inland waterway transport	73	81	80	75	232	246
Air transport	1 471	1 782	2 071	2 320	2 237	2 636
Urban electrical transport	329 444	299 850	288 410	286 339	293 794	299 100
<b>Total</b>	<b>1 161 266</b>	<b>1 021 098</b>	<b>988 581</b>	<b>946 101</b>	<b>924 436</b>	<b>925 534</b>

*Source:* National Statistical Institute (NSI)

**\*Note:** The data for 2008 is preliminary

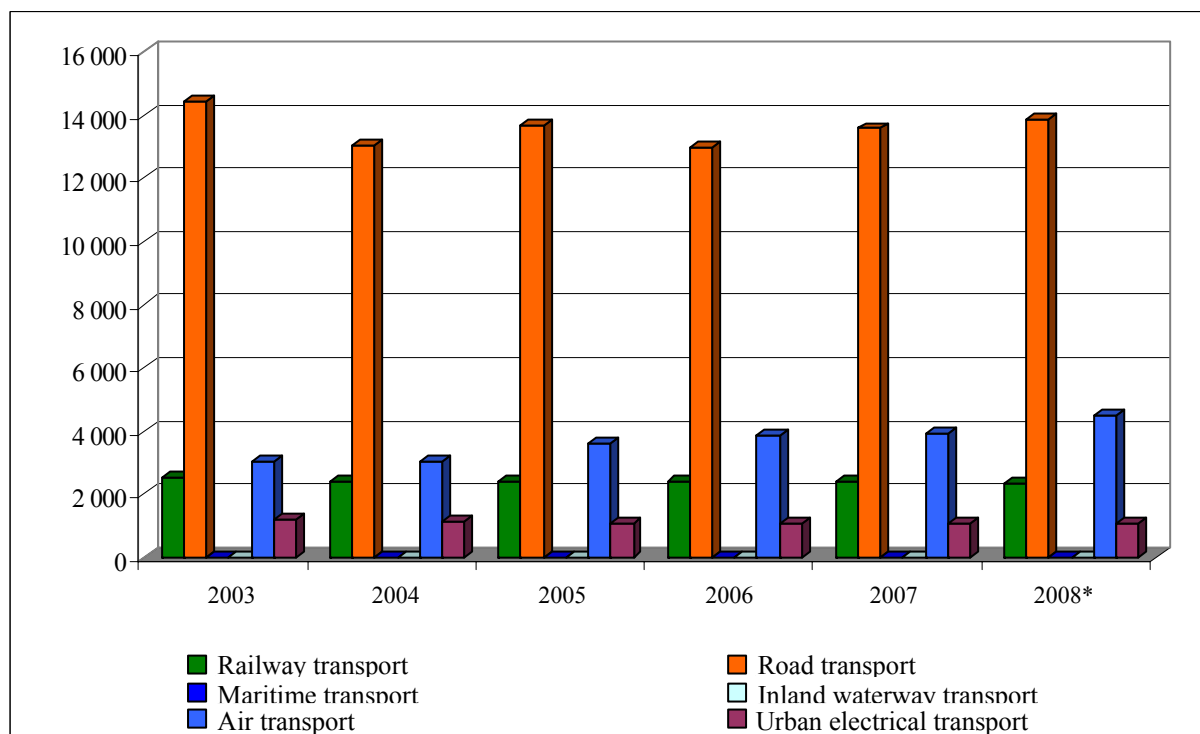
**Chart 6.2.1.3.: Passengers carried by the different transport modes, 2003 – 2008, thousand**



Source: National Statistical Institute (NSI)

\*Note: The data for 2008 is preliminary

**Chart 6.2.1.4.: Transport performance, million passengers-km, 2003 – 2008**



Source: National Statistical Institute (NSI)

\*Note: The data for 2008 is preliminary

### 6.2.2. Supply of transport services

- The transport infrastructure of the country, as a whole, is well developed and provides relatively good conditions for all transport modes: railway, road, sea, inland waterway, air and intermodal.

- The railway network of the country is very well developed and highly electrified, and it can absorb a much higher demand for transport services. Due to delayed repairs, its current state as a whole is not satisfactory, which has a negative impact on permissible maximum speeds, duration of travel, comfort and maintenance costs of railway trains traffic. Most of the safety, telecommunication and energy supply systems are outdated and at a low technological level, which does not match contemporary requirements for operative compatibility and could create problems in terms of transport safety. The railway network product quality is not satisfactory at the relatively low infrastructure access charges, which should cover to a higher extend the deficit, accrued because of low traffic, in funding network maintenance.

- The existing road infrastructure is sufficiently well developed and is capable of absorbing demand, with the exception of the suburban areas of large agglomerations. The quality of the product provided by the road network is not satisfactory, mainly because of the poor state of repair of the road pavements and the insufficiently developed network of highways and roads with more than two lanes. The product price is competitive but does not include the full amount of social expenses. The weakness of the road network lies in the insufficient bypass roads, as a result of which motor vehicles traffic is passing through a large number of towns and cities. Another problem stems out of the necessity, in line with the international commitments assumed by the state, to increase the load-carrying capacity of the pavements to 11.5 tonnes/axle along the main international transport destinations by 2014.

- Bulgaria's seaports of national importance have sufficient capacities for processing general, bulk, liquid and refrigerated cargo, containers, heavy pallets and RO-RO units. Currently, some 75 to 80 percent of the infrastructure capacity is being utilised with the available reloading equipment. The weaknesses of the ports can be summarised as follows:

- Insufficient specialization of terminals
- Unsatisfactory state of port installations and reloading equipment, which does not match modern tendencies observed in the freight flow structure
- Insufficient depth of the ports' water areas
- Outdated organisation, which does not match modern market requirements
- Limited capabilities for development of some of the terminals, located in central sections of the respective urban agglomerations
- Lack of modern logistic and information systems at the ports.

- The hydrological and climatic conditions along Bulgaria's only internal waterway – the Danube River – imply that measures must be taken for improving navigation and for assuring a minimum depth of 2.5 m during the whole or most of the year required for ships of up to 3,000 tonnes.

- Bulgaria's river ports of national importance have sufficient capacities for processing general, bulk, liquid and refrigerated cargo, containers, and RO-RO units. Currently, some 60% percent of the infrastructure capacity is being utilised with the available reloading equipment. The weaknesses of the ports can be summarised as follows:

- Unsatisfactory state of port installations (quays) and reloading equipment, which does not match modern tendencies observed in freight flow structure

- Lack of adequate equipment for handling and storage of grain
- Unsatisfactory state of the links to the national road and railway infrastructure
- Lack of modern logistic and information systems at the ports
- Poor state of development of pollution control equipment.

- The airport infrastructure in Bulgaria is well developed, but its capacity has been quickly exhausted over the last several years. This implies the need for initiating measures to develop a concept project for the expansion of the Sofia Airport and support for the concessionaire, “Fraport Twin Star Airport Management”, for the urgent construction of new passenger terminals at the Varna and Burgas airports. The level of services offered to passengers is progressively improving.

- The main railway lines are included in the AGTC agreement, but the network of logistic terminals in the country is poorly developed. The capacity is sufficient for the current volume of traffic but will be quickly exhausted with its increase. The current state of both the railway lines and terminals, and the reloading equipment is unsatisfactory. The quality of the provided services is low.

- The market for land transport services is characterised by a strong competition both between railway and road carriers and between individual road transport companies. The private railway operators do not attract cargo from competitive transport modes but actually redistribute the existing demand. A qualitative change could be expected mainly in the segment of transit operations with the eventual emergence of foreign operators on the domestic market, as the deregulation of freight railway transport has already been completed. The railway cars and engines pool has a very unfavourable age structure and most of it does not match European requirements and standards. The cargo truck pool, used for domestic transport, is also outdated, while the rates of renewal of the vehicles pool used for international haulage are better.

- The Bulgarian shipping companies, represented mainly by the Navigation Maritime Bulgare (NAVIBULGAR<sup>®</sup>) are competing with established world operators and have suffered a deterioration of their market positions because of the unfavourable age structure of the merchant fleet.

- The Bulgarian river shipping companies are operating in a competitive environment, characterised by its own specifics and high dynamics as well as by an extreme sensitivity regarding changes of any nature – demand and supply of products and raw materials, and customs and other regulations. Similar to sea shipping companies, the main problems for river shipping stems out of the unfavourable age structure of the fleet, which results in a reduced economic efficiency and loss of market positions.

- The market of international passenger services is dominated by air carriers and bus operators. As a result of a dedicated investment policy carried out over the last several years, Bulgaria’s aircraft fleet is being progressively renewed, and the Bulgarian air carriers are progressively increasing their competitiveness, both on the market of chartered flights and of regular destinations. The competition in the bus sector is very strong; however, in a long-term perspective and as a result of the increased incomes a decline in the demand for long-distance travels is expected, with bus operators preserving their positions mainly on the market of regional travels – to and from neighbouring Balkan states.

- The domestic public transport market is characterised by the strong competition both between the Bulgarian State Railways EAD (BDZ EAD) and the bus operators, and between the bus operators. The policy of subsidizing railway passenger travels guarantees the preservation of a certain level of passenger flows without however substantially improving the quality of the services provided by BDZ EAD in terms of availability, frequency, reliability and comfort,

which implies a negative perspective for the national railway carrier. With the expected favourable economic and social development of the country, bus transport will lose, in the long-term perspective, a portion of the passenger flow, which will be reassigned to private motor vehicles.

- The quality of services provided by BDZ EAD and by bus operators in the sector of suburban transport services is inadequate in terms of rolling stock, availability, frequency and reliability. Taking into account the traffic problems in and around large urban agglomerations, and with the implementation of adequate marketing measures and policies for integrating transport services, BDZ EAD may, in a medium to long-term perspective, attract a substantial share of the increasing demand.

### 6.2.3. Transport legislation

The regulatory base in the field of the transport in the Republic of Bulgaria consists of the following major acts and relevant bylaws:

- Railway Transport Act – defines the conditions and the procedures for the construction, maintenance, development and use of the railway infrastructure, the requirements for access to it, the major rules for rail traffic, and the relations between carriers and customers in providing transport services in compliance with the international treaties and agreements signed by the Republic of Bulgaria

- Roads Act – regulates the ownership, use, management, operation, construction, repairs, maintenance and financing of republican and local roads

- Road Traffic Act – specifies the traffic rules on roads open for public use, the requirements applicable to road vehicles and the licensing of road vehicle drivers, the rights and obligations of the participants in the traffic and of the respective authorities and officials, the compulsory measures, which may be enforced, and the sanctions for violating the effective regulations

- Road Transport Act – defines the conditions and the procedures for domestic and international public transport of passengers and freight by motor vehicles, performed by Bulgarian or foreign operators, as well as own-account transport, the control on performing such transport, and the specific rules applicable to contracts for the transport of passengers and freight

- Act on Maritime Space, Internal Waterways and the Ports in the Republic of Bulgaria – regulates the legal regime and the control on its enforcement

- Commercial Shipping Code – regulates the public relations emerging in relation to commercial shipping and the control thereon, the requirements for granting Bulgarian affiliation of vessels; the requirements related to ship and shipping documents, the rights and obligations of captain and crew, the contracts for shipping of freight, passengers and belongings, the real rights on ships, the contracts for ship leasing, the contracts for insurance of ships and cargo, accidents on ships, sea and river salvation, and other relations, related to shipping and shipping safety

- Civil Aviation Act – regulates the conditions for civil aviation and the measures to assure its safety and security.

The harmonisation of Bulgaria's legislation with the legislation of the European Communities, and achieving a full compliance, was the main prerequisite for Bulgaria's accession and establishment as a full EU member state. Currently, Bulgaria's regulatory instruments are fully harmonised with the Community legislation.

Additional target-oriented actions are required in the following aspects:

- Access to profession:
  - Strengthening of the supervisory and control functions of the executive agencies in the transport sector
  - Further development of the regulatory base, especially in the sphere of civil aviation, including accession to the initiative of the European Commission for deregulation of aviation transport in Europe
  - Application of the EU requirements regarding the financial stability of road transport operators according to the agreed transit period and schedule.
- Market access:
  - State investments and compensation for assuring a sustainable development
  - Modernising the policy regarding the charges paid by users for access to the relevant transport infrastructure
  - Unification of standards and procedures related to shipping and crews
  - Gradual deregulation of cabotage operations in the field of road transport according to the agreed transit period and schedule
  - Requirements regarding the maximum admissible dimensions and weight of the road vehicles according to the agreed transit period and schedule.
- Access to transport services, reflecting in the obligation of the state to provide, maintain and co-finance the relevant level of public transport
- The introduction of the European technical standards and requirements for interaction and operational compatibility
  - Raising the level of safety and security in all sub-sectors
  - Further development of the regulatory base in the field of transport of dangerous goods and full harmonisation with European and international safety requirements
  - Regulatory reform for the purpose of establishing a regulatory framework for the investment process in the construction and/or modernisation of the transport infrastructure.

### **6.2.4. Safety and security of transport**

The prime and unconditional requirement of the society regarding the sustainable development of transport is to protect human life, which means traffic safety, with road transport seen as being the major source of problems in this aspect. The number of traffic accident deaths during the last several years was about 1000 casualties per year, with traffic safety a major source of concern due to the increasing number of road accidents and of the wounded, which implies the need to initiate measures for reduction of the human casualties and the economic and mental damages to the public.

The safe transport of passengers and freight is a major task of the whole transport process. The importance of the safety and security issues rose significantly during the last several years because of the unstable international situation and the increased danger of terrorist acts on the international scene.



On a national scale, these problems – with the exception of the system for aviation control – are exacerbated by the insufficient capacity of the currently existing systems for traffic control and management to assure a good level of safety in view of the expected traffic increase.

A substantial volume of work was done during the last several years for introducing standards and for unification of approaches for inspecting the constantly expanding variety of road vehicles. Despite these efforts, however the level of road safety in Bulgaria lags far behind the EU average, which results in major losses for the national economy and for the society as a whole.

The introduction of the European Railway Traffic Management System (ERTMS) will result in a higher level of safety and security in the railway transport.

The introduction of the Vessel Traffic Management Information System (VTMIS) in maritime shipping has improved the control on safety and on the preservation of the environment in shipping operations.

The maintenance of the national standards of aviation safety and security in compliance with the standards of the European Aviation Safety Agency (EASA) and of the International Civil Aviation Organization (ICAO) is seen as a guarantee for a progressive improvement of flights safety.

As an EU member state and an external border state within the European Union, Bulgaria has assumed the commitment by 2011 to start applying in full the provisions of the Schengen Agreement on border control, adopted in 1985. On January 1, 2007, Bulgaria started applying the provisions of this Agreement regarding the external EU borders; the provisions related to the removal of the control at the internal borders requires a decision of the Council of the EU, preceded by inspections in the field of police cooperation, the protection of personal data, visa policy, the Schengen information system and the control of the land, sea and air borders of the country. Two assessment missions have been carried out so far:

- “Sea borders” – in September 2009
- “Air border – in November 2009

The “Land borders” mission is pending.

Applying in full the achievements of the Schengen Agreement will allow Bulgarian citizens to cross freely the borders between the Schengen states by guaranteeing at the same time the relevant level of security. Romania and Cyprus are also preparing for accession to the Schengen Agreement.

The policies and the priorities in terms of safety and security of transport are defined by the Ministry of Transport, Information Technology and Communications. The following secondary budget allocations managers are in charge of the safety and security measures for the different transport modes:

- The Executive Agency “Railway Administration” is a national authority in charge of the safety of railway transport, controlling the development, operation and technical maintenance of the railway infrastructure in compliance with the national safety regulations and with the national technical rules applicable to the railway system; controls the compliance with the safety requirements in the operations of enterprises engaged in construction and repair of components of the railway infrastructure; controls the operation of the rolling stock in terms of freight and passenger safety

- The Executive Agency “Automobile Administration” performs functions and obligations, related to the direct control over the safe operation and technical condition of road vehicles, and monitors the compliance with the regulatory conditions and procedures for public transport of passengers and freight

- The Executive Agency “Maritime Administration” organises and coordinates the activities, related to the safety of shipping at sea and along inland waterways in the Republic of Bulgaria; controls the compliance with shipping safety regulations by Bulgarian and foreign vessels, and the maintenance of port infrastructures in compliance with the international safety and security standards

- The Executive Agency “Exploration and Maintenance of the Danube River” secures the waterway navigating conditions required for shipping along the Danube waterway and in the water areas of ports and winter ports; the Agency is in charge of the safety of shipping along the Bulgarian-Romanian section of the river; assures the compliance with the requirements for technical and labour safety of ships and floating technical facilities

- The Directorate General “Civil Aviation Administration” performs the regulatory and control functions of the state in assuring the safety and security of aviation by controlling civil aviation operations, civil airports and flight sites, the civil aircraft, and the air navigation and other equipment, as well as the actions of natural persons and legal entities, related to civil aviation on the territory of the country.

The Directorate “Air, Waterborne and Railway Accident Investigation Unit” within the Ministry of Transport, Information Technology and Communications investigates aviation, maritime and railway accidents.

The Directorate “Safety, Technical Supervision, Safety and Healthy Working Conditions” participates in performing the state policies for assuring healthy and safe working conditions within the transport system, the safety of road traffic, and in applying the national policy for safe transport of dangerous goods by road, railway and inland waterway transport.

The compliance of all participants in motor traffic with the traffic rules, and the technical condition of the road vehicles is controlled, within the scope of their prerogatives, by officials and control authorities appointed by the Minister of Transport, Information Technology and Communications.

The following additional inter-agency bodies have been established to deal with the safety of air, inland waterway and road transport:

- Civil Aviation Safety Council

- A consultative body with the Minister of Transport, Information Technology and Communications dealing with strategic planning and consultations, coordination and cooperation between authorities, legal entities and natural persons engaged in assuring the security of ships and ports (Security Council)

- A state-public consultative commission on traffic safety with the Council of Ministers, which coordinates the activities of the state authorities and the public, related to traffic safety issues.

In view of the specific character of the problems, most of the safety and security operations are financed by the state budget according to approved schedules for each transport mode. State charges are collected for using the transport infrastructure, and the revenue is reinvested in the rehabilitation of the transport infrastructure with the objective to assure the safety of bus and railway transport, flights and shipping.

Bulgaria's EU membership creates good opportunities to finance some of the safety and security measures by allocations from the EU Structural and Cohesion funds. Loans are used to co-finance a number of projects, which are directly or indirectly related to safety and security.

#### **6.2.5. Efficient utilisation of the funds from EU programmes and the implementation of priority infrastructure projects**

Despite the progress achieved in implementing the priority infrastructure projects, there still exists an unfavourable tendency towards a delay in the completion of these projects. The efficient utilisation of the EU funds and of the funds from other international financial institutions depends on a multitude of external and internal factors, which could be aggregated as follows:

- Administrative capacity at all phases of project management: planning, preparation, implementation and follow-up monitoring
- Transparent tender procedures at all phases of the investment process
- Adequate regulatory framework for the investment process, which should enhance the competitiveness of Bulgarian construction and supervisory companies.

## 7. THE EUROPEAN TRANSPORT POLICY

The common transport policy of the European Union is of key importance for achieving the modern objectives of the Community – a sustainable development within the context of expansion and globalisation.

The European Commission **White Paper on “European transport policy for 2010: time to decide”**, published in 2001, highlights the four major pillars of the development of transport during the 10-year period:

- **Change in the balance between the different transport modes** – the measures in this pillar are aimed at improving the quality of road transport; revitalizing the railways; controlled expansion of air transport; adapting the system of sea and inland waterway transport to the new requirements; creating links between the transport modes

- **Removing the “bottlenecks”** – the measures are related to creating incentives for the establishment of routes, dedicated exclusively to freight transport; the creation of “quick” networks for passenger transport; harmonising the minimal safety requirements and standards in road and railway transport tunnels

- **Placing the users in the focus of transport policies** – the measures are dedicated to raising the safety of the roads and reducing the number of accident casualties; the development of a general methodology for infrastructure tolls; clear identification of the rights and the obligations of the users; development of a sustainable urban transport system; placing technologies at the foundations of a clean and efficient transport

- **Management of the effects of globalisation of transport** – the measures in this pillar are aimed at integrating the infrastructures of the new EU member states into the European transport system; the assurance of adequate public financing for infrastructure development; full membership of the European Commission in the proceedings of the existing international organisations.

A **Mid-term Review of the White Paper** was made in 2006, and the programme priorities were updated. The objective of achieving a sustainable transport policy of the EU was re-confirmed, namely that the transport systems of the member states must comply with the economic, social and environmental requirements of the public.

The mid-term review, titled **“Keep Europe moving – sustainable mobility for our continent”**, offers a detailed and comprehensive approach to transport policy. The European policy for sustainable mobility must be built on a broader spectrum of political instruments, which allow a shift to more environment-friendly regimes wherever possible, especially at long-distance destinations, in the urban areas or the corridors with heavy traffic. The document recommends the creation of incentives for investments in new or in upgraded intelligent infrastructures in order to improve accessibility and reduce the traffic load. The implemented transport policy must respond to the challenges, which have emerged after 2001. It was emphasized that the EU transport systems must assure a high level of mobility to people and business within the Community boundaries; protection of the environment, the jobs, the citizens and the passengers; innovations in support of mobility; and the establishment of international links.

The White Paper, published in 2001, is nearing the end of its 10-year time span and the Commission is trying to define the vision for the future of transport and mobility and prepare the ground for later policy developments. In this aspect, and after an analysis, which included an assessment of the European transport policy by 2010 after discussions in several focus groups,

the European Commission published on June 17, 2009, a Communication titled “**A sustainable future for transport: towards an integrated, technology-led and user-friendly system**”, which consolidated the results of the discussions.

The main objective, which must be achieved between 2010 and 2020, is the creation of a sustainable transport system, which will be fully integrated and competitive, and which will match the economic, social and environmental needs of the people. A better integration of the individual transport modes is a means for improving the overall efficiency of the system and for accelerating the design and commissioning of innovative technologies.

The measures, listed below, are needed for a high-quality and safe transport, as well as for improving the accessibility and for keeping the EU at the forefront of transport technologies and services:

- Infrastructure: maintenance, development and integration of the networks of the different transport modes
- Funding: mobilising the resources for sustainable transport
- Technology: accelerating the transition to a low-carbon society and to spearhead global innovations
- The legislative framework: further promoting market opening, and fostering competition
- User's behaviour: educate, inform and involve
- Governance: effective and coordinated action
- The external dimension: the need for Europe to speak with one voice.

The transport system will become subject to substantial changes over the next several years because of the further opening of markets, and innovations. The competitiveness of Europe's economy and the sustainability of the transport companies depend on their ability to adapt to innovations and new market demand. The creation of a sustainable transport system, matching economic, social and environmental need, which is fully integrated and competitive must emerge as the main objective of all member states and of the EU as a whole.

Some of the objectives, defined in the EC Communication on “**A sustainable future for transport: towards an integrated, technology-led and user-friendly system**”, and the policies for achieving these objectives, had been drafted a year earlier by the European Commission in a special package of initiatives, called later “**The Greening Transport Package**”.

### 7.1. The Greening Transport Package

The package contains a review of the existing measures and forthcoming EU initiatives, related to improving the environmental compliance of transport. There are five major documents, which are included in the package:

- Communication from the Commission to the European Parliament and Council: “**Greening Transport**”

This document lays the ground for the whole package, and contains arguments in support of, and consolidates the need and the order of implementing of the next four sections of the programme package. It is indicated that mobility is key to quality of life and is vital for the EU's competitiveness, and that it also imposes certain costs on society.

The European Union defined in 2007 some major objectives, to be reached by 2020, which are related to the reduction of greenhouse gas emissions by 20%; the increase by 20% of the share of renewable energy sources and the reduction of energy consumption by 20%. The future actions, as set out in the Communication, are based on what has been done in the sphere of climate change, environment pollution, noise pollution, congestion and road accidents, and motivate the need to draft a detailed inventory. The need to introduce a realistic pricing in transport and the drafting of a Strategy for internalising the external costs of transport are also motivated. The document identifies also some additional measures, related to climate changes, local pollution, noise, and traffic congestion reduction.

- Working document to the Greening Transport Communication: **“Greening Transport Inventory of documents, initiatives and activities, completed or ongoing”**

The working document contains a detailed inventory of the development of the regulatory base in this sphere, including all European initiatives, programmes and actions, which have been implemented or are currently being implemented with the objective to raise the level of sustainability of the transport sector. It is stated that the transport sector is a component and a prerequisite for a comprehensive sustainable development – environment preservation, social justice and unity; economic prosperity and meeting international commitments.

- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: **Strategy for the internalisation of external costs**

Internalising external costs is relevant for the package of measures, which aim at increasing the sustainability of transport. It is of an utmost importance that transport should contribute for achieving the basic priorities of the Commission, namely sustainable development and maintaining Europe’s competitiveness.

The European Commission has emphasized during the last several years the necessity to develop a more efficient pricing system in transport, which would reflect in a better way the actual transport expenses. The aim of internalising external costs is to provide an indication for the exact price, so that users could take over the expenses they generate, so that they could be motivated to change their behaviour in order to reduce these expenses. The external costs (the loss of time caused to other motor vehicles drivers because of congestion, the health problems incurred by noise and air pollution, and in a longer-term perspective – the effect of gas emissions on climate changes) are not assumed directly by the users. Funding the police, infrastructure management, hospital establishments and public healthcare is real and is assumed by the society and the citizens.

- Proposal for a **Directive of the European Parliament and the Council to amend Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures**

The proposal for a Directive drafted in June 2008 motivated the need to amend Directive 1999/62/EC, and defines several important terms like: “toll”, “infrastructure charge”, “external cost charge”, “cost of traffic-based air pollution”, “cost of traffic-based noise pollution”, “cost of congestion”, “weighted average infrastructure charge”, “weighted average external cost charge”. The proposed amendments regulate the means for collecting charges, tolls and fees (in full compliance with the principle “polluter pays”) and the spheres for spending the revenue, which are focused on reducing the adverse effects on environment, on reducing congestions and on protecting people and their health.

- Communication of the Commission to the European Parliament and the Council on **“Rail noise abatement measures addressing the existing fleet”**

The railway transport is generally considered as one of the most environment-friendly transport modes. However, the contribution of rail transport to noise pollution is significant. Measures have already been initiated regarding noise abatement and a Technical Specification has been drafted for the interoperability relating to the subsystem “rolling stock — noise” in the field of railway transport. The objective of the Community is to reduce the exposure of the population to railway noise. Incentives are created for programmes to reduce noise generated by freight rail cars, mainly by retrofitting as the most economically feasible measure. It is also planned to introduce differentiated line access fees, which will be the main component in a package of measures to stimulate rolling stock retrofitting.

### 7.2. Railway transport

The European Commission launched a series of initiatives in 2007 with the objective to achieve a higher efficiency in freight transport within the Community. This new package of measures included also the Communication of the Commission titled “**Towards a European rail network for competitive freight**”.

The creation of an integrated and interoperable European railway network as well as the improvement of the operation of this network remain the top priority goals set out in the European transport policy. Achieving these goals requires enhanced coordination and cooperation both between the individual member states and between the member states and the network managers.

The Communication published in 2007 was followed in 2008 by a **Proposal for a Regulation of the European Parliament and of the Council concerning a European rail network for competitive freight**.

The Proposal for a Regulation contains provisions, covering the international management of the railway infrastructures, which otherwise could not be implemented individually by the member states. The Proposal is based on the principles of subsidiarity and proportionality.

Despite the ongoing process of modernisation of the railway enterprises in the member states and the integration of their national systems into the European railway system, in the next years it will be necessary to dedicate efforts to the unsolved issues over the last several years, concerning:

- Improving cooperation between infrastructure managers with the objective to remove border obstacles to freight railway transport, increasing traffic internationally, and optimising the investments in infrastructure and capacities management
- Developing and managing integrated (intermodal) terminals, servicing railway transport
- Assuring high quality levels and reliability of the infrastructure facilities allocated to international freight transport.

### 7.3. Road transport and intelligent transport systems

The main objective of the European transport policy is to create a sustainable transport system, matching the economic and public needs of society and favouring the further development of an integrated and competitive Europe. Improved integration between transport modes achieved by accelerating the development and the commissioning of innovative technological solutions will contribute to improving the overall efficiency of the transport system.

One of these innovative solutions is the application of information and communication technologies for creating intelligent transport systems, which will emerge as a major contribution to optimising the utilisation of integrated transport networks, to improving safety and security of transport, to increasing mobility, to reducing the negative impact on the environment and climate, and raising the energy efficiency. At the same time, the intelligent transport systems (ITS) support the functioning of the domestic market and raise competitiveness and employment.

In compliance with the objectives of this policy, the European Commission drafted an **Action plan for the deployment of Intelligent Transport Systems in Europe** and submitted a Proposal for a Directive laying down the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other transport modes.

The first document lays the groundwork and its objective is to accelerate and coordinate the introduction of intelligent transport systems in road transport, including its interaction with other transport modes. The document highlights six priority spheres with a specific set of actions and a strict schedule:

- Optimal use of road, traffic and travel data
- Continuity of traffic and freight management ITS services on European transport corridors and in conurbations
  - Road safety and security
  - Integration of the vehicle into the transport infrastructure
  - Data security and protection, and liability issues
  - European ITS cooperation and coordination.

The objective of the second document is to provide for a coordinated introduction of ITS applications and harmonised trans-border services regarding data on road traffic and on traffic management. The introduction of ITS by the member states must be based on key principles like general operability, efficiency, cost efficiency, geographic continuity, interoperability, and degree of maturity.

#### 7.4. Waterborne transport

Waterborne transport offers substantial opportunities to increase efficiency and improve environmental performance. The importance of seas for the social and political development of Europe implies the coordination of the transport policy objectives with the objectives of the **EU integrated marine policy**.

The European Commission published in early 2009 the document titled “**Strategic goals and recommendations for the EU’s maritime transport policy until 2018**”, which represented the main strategic objectives of the European maritime transport system by 2018 and identified the key fields of action, where active interference will boost competitiveness of the sector and at the same time will improve its environmental performance. The main objectives set out in the document are:

- Strengthening of the role of the European maritime shipping on the globalised market
- Preserving and accumulating the human resources in the sector, assuring seamanship skills and practical maritime experience



- Improving the quality of maritime transport services
- Active role of the EU on the international scene, dedicated to achieving a comprehensive maritime transport regulatory framework
  - Utilising the full potential of marine transport in short-sea shipping and of other types of marine transport services for Europe's business and citizens
  - Assuring Europe the position of a global leader in science, research and innovation related to maritime transport.

The European Commission published in January 2009 the **“Communication and action plan with a view to establishing a European maritime transport space without barriers”**, which represented a concept on expanding the internal market in order to incorporate maritime transport within the EU by eliminating or simplifying the administrative procedures within the EU; the objective is to make this transport mode more attractive, more efficient and more competitive while minimizing its harmful impact on the environment.

A number of measures and recommendations were proposed in order to raise the importance of short-sea shipping within the logistics chain of intermodal transport, improving the internal short-sea shipping market, simplifying administrative procedures related to maritime transport, streamlining traffic, and rationalizing the use port facilities.

One of the important pillars of the European transport policy in the field of shipping is the **“Motorways of the Sea”** concept, which aims to assure a better utilisation of the huge capacity of the European sea basins and large river systems as an infrastructure for “door to door” freight transport.

The importance of the concept for the financial programming period 2007 – 2013 is confirmed by the inclusion of the motorways of the sea in the working programme of the Trans-European Transport Network and the identification of the motorways of the sea as a specific activity within the Marco Polo II Programme.

The European Commission published in January 2006 the **“Communication on the Promotion of Inland Waterway Transport “NAIADES” an Integrated European Action Programme for Inland Waterway Transport”** which covers the period from 2006 to 2013. It is focused on five strategic and complementary priority fields of the policy, related to the development of this sector in Europe, namely:

- Improving the market conditions
- Modernisation of the fleet
- Development of the human resources
- Improving the image
- Infrastructure changes.

The European Council assigned to the European Commission on June 19, 2009 the task to draft the **“EU Strategy for the Danube Region”**. This is basically a new initiative, coordinated by the European Commission, which combines the efforts of the regions and countries in the Danube River basin for improving the planning procedures within the Cohesion Policy of the EU at a territorial level and by taking into account regional and local specifics and needs; for accelerating the processes of economic and social cohesion, and for boosting and expanding

territorial cooperation through an efficient application of the principles of the European Cohesion Policy at a macro-regional level.

The priority fields in the process of development of the Strategy were outlined on the basis of three “pillars” as proposed by the Commission:

- Connectivity – planning of initiatives for improving access, transport links and communications along and to the Danube River, and the efficient utilisation of energy resources
- Environment – execution of policies, which include measures to improve water quality, biological diversity, risk management and prevention
- “Unlocking the potential” – a complex of interventions in a broad spectrum of social and economic spheres, with the emphasis placed on economic development and on raising the competitiveness of the regions, on education, culture, and tourism, which are expected to assure a cohesion, multi-cultural and ethnic dialogue while preserving the specific character of the regional identity and cultural heritage.

“Management” is described as a horizontal priority – inter-agency cooperation, inter-regional policy and trans-border cooperation.

### 7.5. Air transport

The EU Air Transport Policy “**Flying Together**” was presented on October 30, 2007. It highlights the aspects and the development objectives of air transport. The objectives are aimed at strengthening the internal air services market, its expansion to neighbouring states and key EU partners, and at assuring its sustainable development.

The internal air services market has removed all commercial barriers for airlines, which operate in the EU. Currently, air carriers are free to operate at any destination within the EU. The benefits of new destinations, the increased number of options to choose from, the lower prices and improved service quality are dedicated both to passengers and to airports, airlines and their employees.

The aim of the Commission is to export the benefits from the internal market while the foreign relations of the EU follow the path of regulated competition.

The Commission aims to achieve this by three types of agreements:

- Multilateral agreements with neighbouring states (of the “Single European Sky” type)
- Amending the existing bilateral agreements of the member states with third parties with the objective to assure equal access of all Community air carriers to markets in third states (the so-called horizontal agreements). Negotiations may be carried out both by the Commission and by national authorities
- Concluding of global air transport agreements by the Commission (of the “Open Sky” type) with states considered as being EU strategic partners. These are the USA, Canada, Australia, New Zealand, China and India. The objective of the global agreements is to remove the barriers to the extension of the markets of Community carriers and to stimulate the development of air services between the territory of the respective state and the EU.

The European Commission launched in 2004 the “**Single European Sky**” project with the objective to assure a sustainable growth of air traffic above Europe for the next 30 years. The emphasis was shifted from national borders and air space sovereignty to the structure of the Pan-

European Air Traffic, taking into consideration the environmental, economic and social impact of aviation.

A number of the tasks related to legislative measures identified in the 2004 project have not been achieved, that is why the European Parliament approved in 2008 the so called **second legislative package – Single European Sky II (SES II)**, which identifies the objectives in setting the terms for completion of the tasks, for strengthening the network functions of air traffic control, the expansion of the prerogatives of the European Aviation Safety Agency, and others. The project aims to increase flight safety and efficiency for the next 30 years and to reduce the harmful effects of aviation on climate changes. In order to achieve these goals, the Commission introduced the **SESAR Programme**, which has the following objectives:

- Reducing air traffic control costs by 50%
- Reducing in-flight carbon dioxide emissions by 10%
- Tripling the capacity of the air traffic control system
- Improving flights safety.

The programme is being implemented in three phases: the definition phase was completed in 2008 and delivered an Air Traffic Management Master Plan defining the content, the development and deployment plans of the next air traffic management systems; the development phase (by 2013) will produce the required new technological systems and components; and the deployment phase (by 2020) will seek to build the new infrastructure at a wide both in Europe and in partner countries.

### 7.6. Intermodal transport

The Mid-term review of the 2001 White Paper highlighted the key role of logistics in assuring sustainable and competitive mobility in Europe and its contribution to attaining other objectives like a cleaner environment, energy supply security, and safety and security of transport.

In this connection, the European Commission adopted in 2006 a Communication regarding the logistics of freight transport in Europe, and a year later published a new Communication, titled **“Freight Transport Logistics Action Plan”**. The objective of the activities outlined in the Action plan is to assist the logistics sector of freight transport in order to achieve a long-term efficiency and growth by solving such problems as bottlenecks, pollution and noise, carbon dioxide emissions and the dependence on fossil fuels, which – in the absence of solutions – will expose the efficiency objective to a risk. These actions must be accompanied by longer-term perspective work, carried out jointly by the member states in order to establish a common base for investments in future freight transport systems.

**The Marco Polo Programme** is one of the major European Commission initiatives in support of intermodal transport and represents an important component of the effective EU transport policy. The programme is dedicated to reducing traffic congestions and the development of sustainable transport. The programme contributes to achieving this objective by supporting projects, which aim to avoid freight traffic on roads or reassigning freight from road transport to other transport modes, which are more environment-friendly and have unused capacities, for instance short-distance short-sea shipping, railway transport and inland waterways. Although the programme managed to achieve substantial results in terms of reassigning freight, the application of the first Marco Polo Programme 2003 – 2006 (Marco Polo I) will not attain its objective in terms of freight reassignment. According to external assessments, only 64% of the targeted freight will be

actually reassigned after the completion of the projects, approved within the framework of Marco Polo I.

Regulation (EC) No 923/2009 of the European Parliament and of the Council of 16 September 2009 amending Regulation (EC) No 1692/2006 for establishing the second Marco Polo programme for the granting of Community financial assistance to improve the environmental performance of the freight transport system (Marco Polo II 2007 – 2013) was promulgated in order to assist the programme in attaining its goals. Measures were also initiated with the potential to generate a substantial added value, as:

- This would improve the efficiency of the programme in terms of avoided or reassigned tonnes-km
- This will result in a more balanced distribution of reassigned freight and will avoid traffic between the various transport means and the different types of projects
- The legislative basis and the management of the programme will be simplified, which will result in reducing administrative costs and burden, and consequently will attract more enterprises, including smaller enterprises, which currently encounter problems or simply do not have the necessary equipment to manage the encountered difficulties
- This will have a positive impact in terms of the propagation of impacts.

The Marco Polo Programme is of an utmost importance, as it creates preconditions for a more active participation of Bulgarian ports in combined transport from and to the Middle and the Upper Danube regions.

### **7.7. Urban transport**

The European Commission adopted on 25.09.2007 the Green Paper “**Towards a New Culture for Urban Mobility**”. The Commission defined by this strategic document the new concept for a sustainable urban mobility in compliance with the responsibilities of all local, regional and national authorities.

Sustainable urban mobility should provide for a long-term economic development of cities, quality of life of their inhabitants, and the protection of the environment. The new concept of urban mobility is to promote the use of all transport means and the combination of different types of public transport with different types of private transport. It also implies achieving the common goals for economic prosperity and respecting the right of mobility through transport demand management, quality of life and protection of the environment.

The Green Paper identifies five challenges faced by European cities in their efforts to ensure sustainable mobility. These challenges relate to the need to facilitate movement in the cities; reduce pollution of the environment and noise, and improving the organisation, accessibility, security and safety of public transport.

The integrated approach is the only way to overcome these challenges. The Green Paper offers concrete solutions to problems encountered by urban mobility, namely:

- Promoting walking, cycling, the use of public transport, and the development of adequate infrastructure
- Optimising the use of private cars
- Development of the adequate infrastructure and use of the appropriate transport vehicles

- Introducing energy efficient technologies, the use of alternative fuels and of more environment-friendly and safe transport vehicles
- A substantial improvement of collective transport.

The European Commission adopted on 30.09.2009 the **Action Plan on Urban Mobility**, based on consultations held after the presentation of the Green Paper. Thus, the Commission presented for the first time a package of measures, which support and stimulate policies for sustainable urban mobility in the EU member states.

The Action Plan offered 20 practical short and medium term actions to be implemented from now until 2012, and proposed an overview of the implementation of the Plan with the aim to provide guidelines for future development. The topics proposed in the Action Plan relate to: promoting the implementation of integrated policies; meeting the needs of the citizens; developing a greener urban transport; increased funding; sharing experience and knowledge, and optimisation of urban mobility.

### **7.8. Green paper on the development of TEN-T**

The Commission approved on 4.02.2009 the **Green Paper TEN-T: “A policy review – Towards a better integrated trans-European transport network at the service of the common transport policy”**. The document summarises the Commission’s assessment of current policy on TEN-T. Based on the findings of this analysis, the document offers three options for the future development of the transport network. It supports the development of a priority network, taking into account criteria like cargo flows, cohesion, regional development, climate change, and others. Along with the development of the priority network, greater attention will be paid to the so-called horizontal issues, including safety, security, environmental protection, intelligent transport systems, space applications, etc.

## 8. FUTURE DEVELOPMENT TRENDS

### 8.1. Transport services demand

Preparing thorough and detailed forecasts of the demand for transport services in the country, as a whole, and across modes and sectors that quantify all internal and external factors, their interdependence and course of action under different scenarios is essential for planning the normal functioning of the transport system. These extensive and detailed forecasts are included in the *General Transport Master Plan for Bulgaria*, which is currently being drafted by AECOM.

Since the document maps the strategic directions for the country's transport system in the next decade, the current section presents the transport activity's forecasts in general as well as by transport mode. The forecasts are based on the activity's key synthetic indicators. Drafting forecasts is subject to the mandatory requirement to take into consideration the fact that, at present, our country is in deep economic recession because of the global economic crisis, and this will affect the pace of development of all sectors of national economy, including transport.

The relationship between the transport demand the economic growth (expressed by the GDP), has been confirmed by the transport economics. Research, covering periods of 35 years or even more, conducted in several EU member states proves the statistical reliability of this relationship, which in some cases indicate that the transport sector had been growing at a higher rate than the GDP.

Because of the unstable economic development of Bulgaria in the last 20 years, data for the transport sector does not fully confirm this correlation. On the other hand, Bulgaria's accession to the European Union, the subsequent opening of this country to the European markets and the freedom of movement of persons and goods within the EU, provide a sound base to predict that the transport sector in Bulgaria will grow at an accelerating pace close to the rates observed in the EU member states.

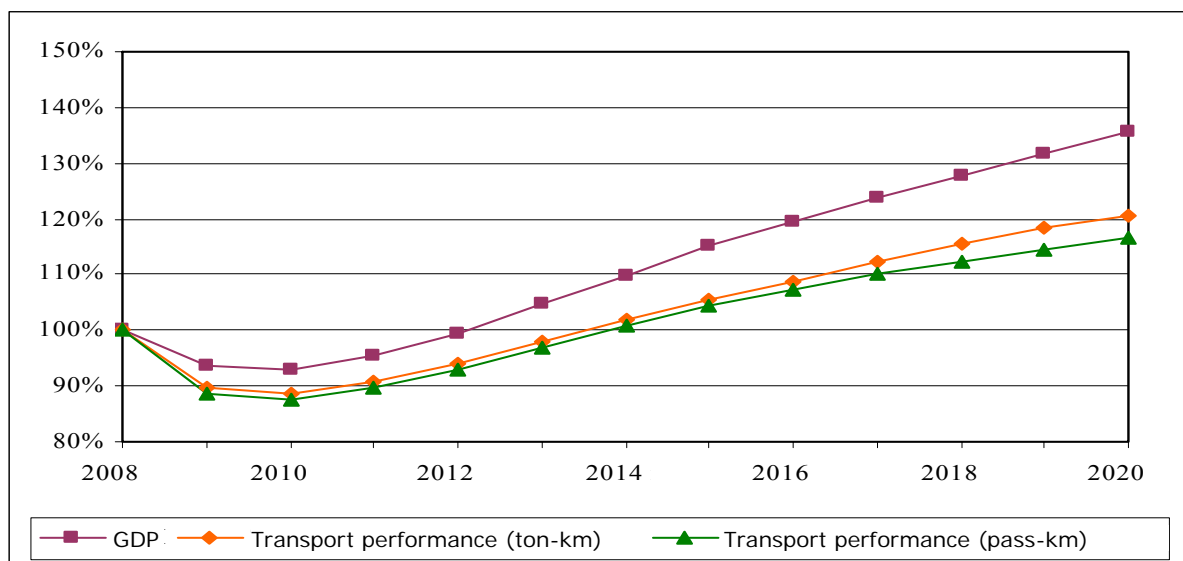
Based on Bulgaria's GDP growth rate targets for 2010 – 2020 it is expected that the transport performance expressed in tonnes-kilometre (ton-km) and passengers-kilometre (pass-km) will increase compared to the base year 2008.

Two scenarios for the projected growth of the transport performance have been designed. The first option is based on a "stable growth rate" assumption and represents the baseline scenario for transport, based on the GDP growth forecast until 2020 of the Agency for Analyses and Forecasts, revised in July 2009 for the period 2009 to 2010.. These estimates assume that a decline of 6.3 percent of GDP will be reported for 2009, while the expected decline for 2010 is limited to 1% compared to the previous year. The projected development of the indicators is shown in the following graphs and charts.<sup>2</sup>

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<sup>2</sup> All forecasts have been developed by the "National Transport Policy" Directorate by applying linear regression methods. The research used data by Eurostat, the National Statistical Institute (NSI), and DG "CAA", as well as GDP growth forecasts (as an independent variable) of the Agency for Analyses and Forecasts and of the Centre for Economic Development.

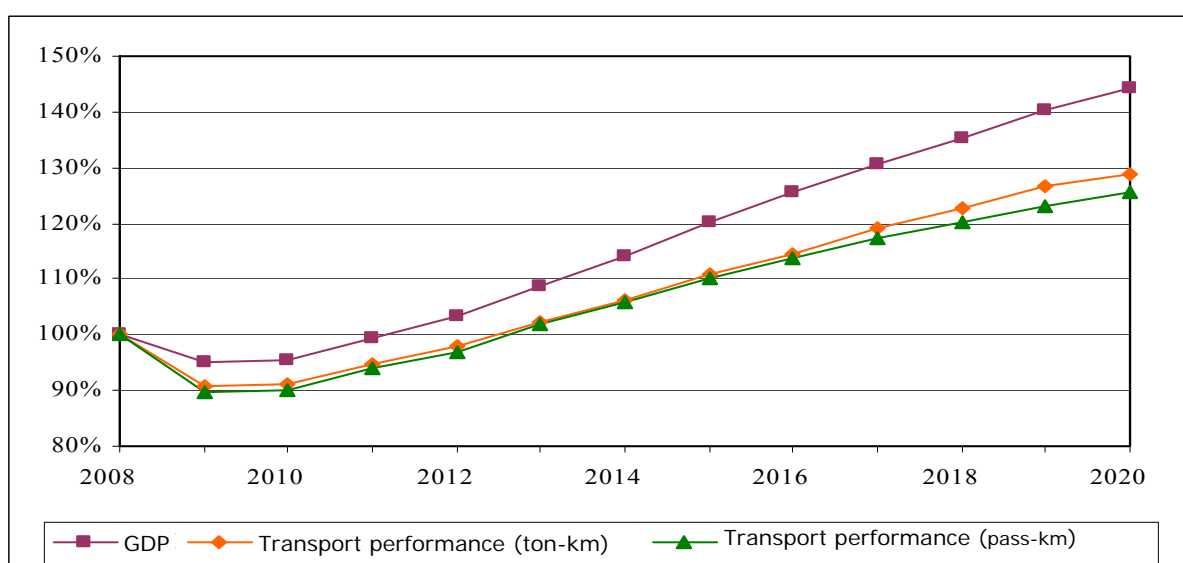
**Chart 8.1.1.: Expected growth of transport performance for 2009 – 2020**  
 (“Stable Growth Rate” scenario)



Source: Ministry of Transport, Information Technology and Communications (MTITC)

The second scenario, provisionally referred to as “high growth rate”, implies an early exit of the country from the recession and it is based on projections (October 2009) of the non-governmental Centre for Economic Development, forecasting a 5% decline of the economy in 2009, a token take-off from the bottom in 2010 by 0.5%, and a noticeable growth rate of 4% in 2011. It is expected that the major transport infrastructure projects will be successfully completed. The forecasts of global financial institutions for a higher growth between 2015 and 2019 have been taken into account as well.

**Chart 8.1.2.: Expected freight and passenger growth of transport performance for 2009 – 2020**  
 (“High Growth Rate” scenario)



Source: MTITC

Both scenarios comply with the European transport policy key recommendation that transport must develop at a lower growth rate compared to GDP, which is reasonable from an economic perspective.

The tendency for the predominance of road transport in terms of goods carried, both internationally and domestically, has been preserved. Railway transport has good prospects in terms of international traffic, predominantly transit traffic, while maritime and inland waterway transport remain with a relatively low capacity, mainly in the field of international transport. A decisive change in the redistribution among transport modes and reducing the share of road transport may only be achieved through an accelerated development of intermodal transport.

In freight, and in terms of the impact of external factors, intermodal transport, which combines the advantages of railway, waterborne and road transport, has the best chances for development. A higher growth rate of freight transport compared to passenger transport is foreseen in both scenarios. This is determined by assumptions for successful implementation of infrastructure projects, which will contribute to the development of a modern transport network, competitive to transport systems in the developed European states, on the one hand, and expectations for a faster growth of industrial and agricultural production, which will increase transport demand – on the other.

In passenger traffic, a strong growth is expected in the use of private cars, which is fully consistent with trends in the developed European states, and a commensurate outflow from the public transport modes – rail and bus. The potential for their development is concentrated mainly in the segment of suburban and commuter travels for work and education. International air transport is also expected to grow, while no substantial growth is forecast for domestic flights.

The “high growth rate” scenario opts for higher growth rates than those proposed in the mid-term review of the White Paper<sup>3</sup> – about 3% per year for freight and about 2.5% (1.5% for the EU-25) per year for passenger traffic. This is due to the fact that the EU average GDP growth rates for the last three pre-crisis years were lower than those in Bulgaria. Hence the projected GDP growth rates for the period 2010 – 2020 in the country are, higher than the average for the rest of the EU member states.

### **8.1.1. Freight transport growth forecasts for transport modes**

It was noted already that the different transport modes would develop at different rates according to demand and their impact on the environment and climate changes. Almost all provisions in the preceding section – “European Transport Policy” – are related to the creation of conditions for a sustainable development of an integrated transport system in the EU and the establishment of an organisation of transport operations, which would be environment-friendly drastically reducing the quantities of greenhouse emissions and particulate matters released in the atmosphere, thus mitigating the impact on climate.

The requirements of this policy have been complied with in drafting the forecasts for the development of transport operations presented further on. The forecasts take into account also the principles of the policy, as stated in the previous sections, for a slower rate of development of transport operations compared with the GDP growth rate.

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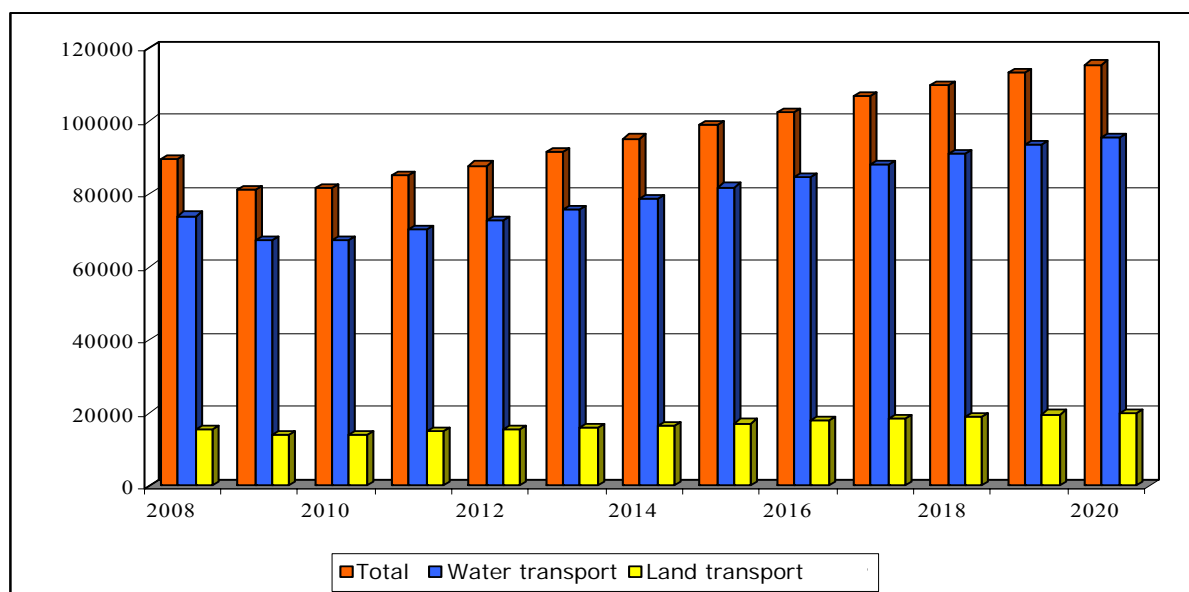
<sup>3</sup> The 2006 Mid-term review of the White Paper on transport is based on the expected GDP growth rate in the EU-25 states and the percentage increase of the freight and passenger transport.



The forecasts for the growth of freight and passenger operations have been developed on the basis of the “High growth rate” scenario of the general forecast as presented above.

The diagram below shows that the expected decline in the total freight transport performance for the crisis 2009 exceeded 9 percent, compared with the preceding year. A slow rise is expected in the coming years, with the 2008 transport performance (89.7 billion tonnes-km) reached by 2012. Towards the end of the period the freight transport performance is targeted at 115-116 billion tonnes-km, the rise is almost 30 percent higher than the reported in 2008, which is used as base for comparison. It must be noted that no significant changes in the overall structure of freight transport should be expected, as marine and inland waterway transport will retain its relative share of about 81-82% of the total due to significantly longer average transport distances. With freight transport performance of inland waterway transport in recent years of a token 2 to 2.5% of the total waterborne transport, no separate forecast for this transport mode was made. However, it should be expected that freight transport along the Danube will increase at the expense of road transport, in compliance with the European transport policy as outlined herein.

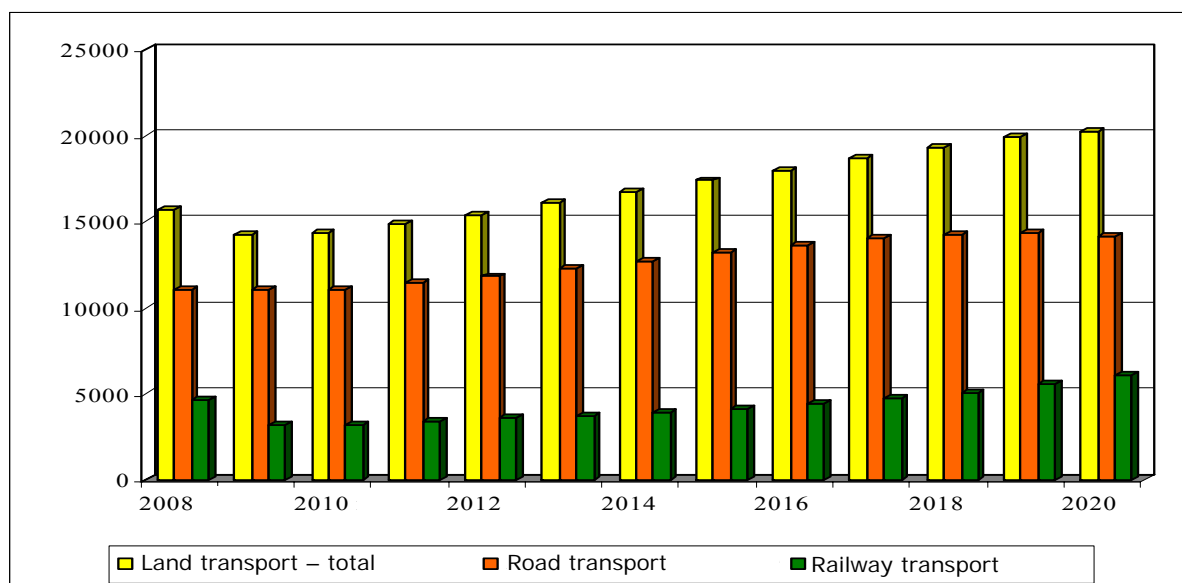
**Chart 8.1.1.1: Expected growth of freight transport – total, and by transport modes (waterborne and land) – million tonnes-km**



Source: MTITC

The next chart shows consolidated projections for the growth of freight transport by the two main modes of land transport – road and rail.

**Chart 8.1.1.2.: Expected growth of freight transport by land – total, and by transport modes (road and railway) – million tonnes-km**



Source: MTITC

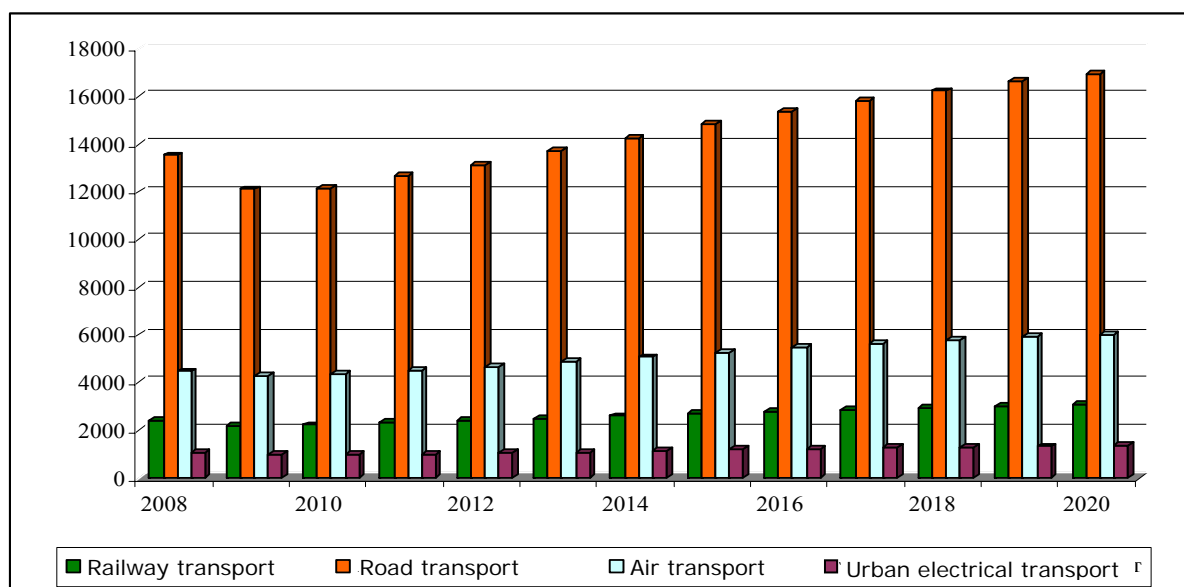
The chart clearly shows the collapse in freight transport by rail in 2009, compared to the previous year, with an expected decline of 30 percent. The situation of freight transport by road is quite different. Moreover, a 0.4 percent growth may be expected compared to 2008. A very slow growth is expected in rail transport, as the 2008 transport performance is expected to be reached by 2015 – 2016; besides, rail freight transport performance will increase at the expense of road transport. Thus, rail freight transport performance by 2020 is expected to increase by about 30 percent compared to the base 2008, and its relative share is expected to increase to more than 40% of the total freight transport by land.

### 8.1.2. Passenger transport growth forecasts for transport modes

The different growth projections for freight transport performance transported by various transport modes are observed also in forecasts for the growth of passenger transport. In this case, however, the lower growth rate of transporting passengers by road will be at the expense of air transport and not rail transport.

This trend can be seen even when comparing the expected volumes for 2009, as shown in chart 8.1.2.1. which compares projected growth rates by 2020 in terms of individual transport modes. It is obvious that total decline in passenger transport in the crisis 2009 will exceed 8 percent, with a 3% decline in air transport. According to forecasts, transport of passengers by air will exceed the 2008 level as early as 2011, while the rest of the transport modes will be able to catch up not earlier than 2013. The higher growth rates of air transport will be preserved and by 2020 (measured by pass-km) it will increase by about 35 – 36%, compared to 2008. As a result of this increase, the relative share of air transport in overall passenger transport volumes will increase from 21% in 2008 to 30% in 2020.

**Chart 8.1.2.1.: Expected growth of passenger transport by different modes – million passengers-km**



Source: MTITC

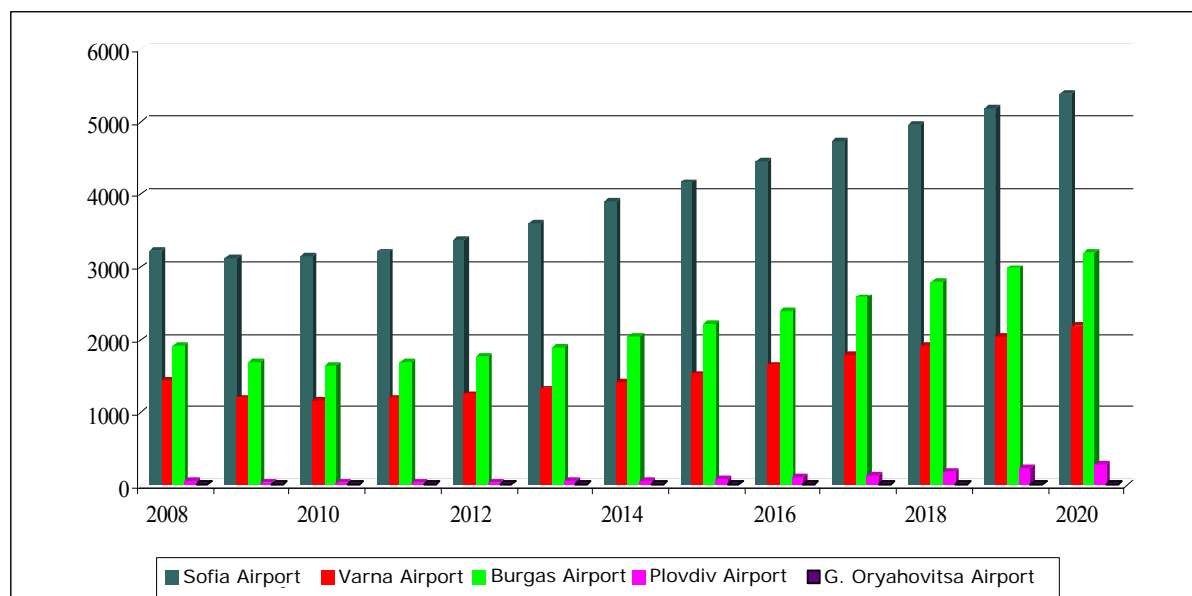
The chart indicates that road transport will continue to be the largest passenger carrier. Nevertheless, in compliance with the continuously updated European and national transport policy towards a drastic reduction of the harmful effects of transport on environment and climate, the growth rate of passenger transport by road will slow down. On the background of an expected 27% growth of total passenger transport performance by 2020, compared to the base year 2008, the increase in road transport perhaps will not exceed 25%, while its relative share of about 63% for the base year is expected to drop to 61.8% by the end of the period.

Passenger transport by railways is expected to grow at a higher rate, especially after 2015. This is a logical development as rail is the “most friendly” transport mode in terms of its impact on environment and climate. Despite the expected high growth rate development of passenger transport by air, railways will preserve their positions and even – with a sensible environmentally policy of the state in place – increase its relative share in the overall passenger transport operations.

Passenger transport by electrical urban transport vehicles (including the Sofia Metropolitan) is expected to increase by 26%, and its share will rise to 6% of the whole, compared to a 5-percent share for the base year 2008.

The expectations, as discussed herein, of a higher growth rate of air transport are relevant not only for Bulgarian air carriers but also for all European airline companies. These forecasts, combined with the already mentioned expectations of world financial institutions for a higher economic growth rate after 2015, which will have a positive impact on tourism, provide a sufficient ground for forecasts that the passenger flows through Bulgaria’s international airports will substantially increase. These expectations are exemplified on chart 8.1.2.2.

**Chart 8.1.2.2: Expected growth of passenger flows through airports – million passengers-km**



Source: MTITC

Despite the expected 3 percent drop in the passenger flow through the Sofia Airport in 2009, compared to 2008, a 1 percent growth is expected as early as 2010, and the base year level will be reached in 2011. Forecasts indicate that a 70 to 72 percent growth of the passenger flow through Sofia Airport may be expected for the period from 2010 to 2020, and the number of arriving and departing passengers is expected to rise to 5.4 million persons by the end of the same period.

The airports in Varna and in Burgas will be emerging out of the crisis at a slower rate. The Burgas Airport, according to a moderately optimistic scenario, will be able to restore the level of the passenger flow of the base 2008 by 2013; at the same time, this may happen not earlier than 2014 at the Varna Airport. Higher growth rates may be expected after 2015, and by 2020 the Burgas Airport is expected to be handling up to 3.2 million passengers (arrivals and departures), and the Varna Airport – up to 2.2 million passengers.

The most significant increase of the passenger flow is expected at the Plovdiv Airport. On the background of a reasonably good development and utilisation of the Rhodopes potential for ski tourism, and of the facilities in Central South Bulgaria for balneological and SPA tourism, the capacity utilisation of the expanded Plovdiv Airport may rise to 60 percent by 2020, which will mean some 300,000 arrivals and departures a year, which is equivalent to a tenfold increase for the 2010 – 2020 decade.

The Gorna Oryahovitsa Airport may be used for freight transport or as a training flight base, although there are no grounds to expect any important growth of passenger traffic during the next ten years.

The total passenger flow of the five airports is expected to increase by about 84 to 86 percent by 2020.

### 8.1.3. Trends in freight transport distribution by different transport modes

Bulgaria has assured free access to all transport operators to various types of transport infrastructures, with the exception of the railway passenger transport operators, and has assumed a commitment to provide access to its railway infrastructure to these operators as of January 1, 2010.

Railway transport is visibly lagging behind other transport modes in terms of facing the challenges of this country's EU membership. The absence of any fixed borders for other transport modes and the enhanced role of private transport operators have boosted the level of management organisation to the relevant market level, which makes them much more competitive than railway transport.

The deregulation of freight transport by rail is already a fact, as private and foreign operators have already started doing business in Bulgaria. Competition will result in improving services quality, reduced prices, and thus will create conditions for shifting freight from road to rail transport.

The introduction of the EU road transport rules, for instance limits on driving time and freight limits, also may increase the attractiveness of railways, as freight operations by road will become more expensive if performed legally. Railway freight performance, measured in tonnes-km, is expected to increase by 0.05 percent a year as a result of the application of more stringent rules. The two factors are expected to peak by 2015, when the railway freight market will be completely opened and fully complied with the EU rules.

The requirements for protecting the environment will also become very important for Bulgaria; as a result, railways will become even more attractive. The volume of freight transported by railways will increase by 0.025 percent because of the higher environmental requirements.

The results from the research on the options to change the transport mode used for freight, and the expected increase of the prices of fuels, electricity and labour define a future increase of road transport operating costs, compared to rail transport, and create conditions for changes when choosing the transport mode, especially for the purposes of long-term planning.

Freight transport by air is subject to longer-term trends, which means that these volumes will increase at a relatively stable rate. This is attributed to the persistent globalisation of industry and the expected reduction in operating costs for cargo aircraft fleets, which will help the global air cargo business growth to settle at a rate of about 3 percent a year in a long-term perspective.

The assessment of current levels of container transport in Bulgaria indicates a lower level than in neighbouring countries. The main sites where containers are processed are the port areas – especially Varna, due to the nature of traffic flowing through this port.

Growth of container cargo is expected in regions with good existing infrastructure, especially in Sofia, where the construction of new rail freight terminals will have a positive impact on the development of intermodal transport.

Container traffic may increase significantly after 2016 as a result of the commissioning of new container terminals at the Burgas and Varna ports.

#### 8.1.4. Trends in passenger flows distribution by different transport modes

The analysis of the country's economic development shows that after the recovery of the crisis, the relatively high growth rates will be restored which will result in higher personal incomes, and hence in an increase in the number of private cars and of mobility. This implies a steep rise in passenger domestic and international transport operations despite the negative forecasts for a population decline in Bulgaria.

Transport by private motor vehicles will increase significantly, especially for domestic travels. This tendency becomes obvious as a result of the comparative analysis of changes in the relative shares of the different transport modes in domestic travels in the EU member states. Thus, the relative share of private cars in passenger transport between 2000 and 2007 fell from an EU (15) average of 84.6% to an average 84.1%<sup>4</sup>, while Bulgaria recorded an increase from 56% to 71.3%, with a persistent growth tendency. It may be expected that the share of private cars in passenger transport by 2020 will rise to about 80%.

The public passenger transport modes market share will be defined mainly by energy efficiency considerations and a sparing attitude towards environment and climate. The forecast regarding the future market structure is shown on chart 8.1.2.1.

In terms of passenger air transport, domestic flights will remain with an insignificant share in 2020, compared to the total number of passenger flights. This defines a relatively insignificant market share of domestic air transport volumes compared to other modes. International flights dominate the Bulgarian aviation market, with an expected growth of about 35% of the whole international passenger traffic from 2010 to 2020.

#### 8.2. Traffic forecasts

The European Commission published in December 2005, as requested by the High-level Group chaired by Ms. Loyola de Palacio, a final report on the project "Scenarios, traffic forecasts and analysis of traffic flows including countries neighbouring the European Union: (EUN STAT)", which had been drafted jointly with the Dutch government and NEA Transport research and Training Institute.

The first section of the report, submitted in 2003, contained forecasts for the internal EU traffic flows. As far as traffic through Bulgaria is concerned, the report highlighted the importance of the Vidin – Sofia – Kulata axis, which links the country to Greece, Romania, and Western Europe, and the internal connection between Sofia and the two seaports in Varna and Burgas.

The Final report submitted in 2005 included also forecasts for traffic flows to states and regions, neighbouring the European Union. It contained:

- A review of the major assumptions regarding trade volumes and transport demand by 2020, in view of the social and economic trends and the development of the transport infrastructure, including a critical assessment of the completeness and the reliability of the data
- Forecasts for 2020, based on two scenarios (Scenario 1 and Scenario 2, accounting for possible changes in economic trends).

The major scenario assumptions were as follows:

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<sup>4</sup> According to Eurostat data.

### A. Scenario 1 (Reference Scenario)

- Persistence of the main social and economic trends
- Full implementation of infrastructure projects, as provided by DG-TREN.

### B. Scenario 2

- Extra economic growth for the Neighbouring countries, up to maximum 6% annual growth of the GDP
- Full implementation of infrastructure projects, as provided by DG-TREN.

Transport forecasts for 2020 for both scenarios were based on trade forecasts by accounting for the transport links in the “origin-destination” matrix.

Branch C of the Pan-European Transport Corridor X passes through Bulgaria: Belgrade – Nis – Sofia. The corridor merges after Sofia with Corridor IV to Dimitrovgrad – Svilengrad – Turkish border.

A major portion of the freight traffic to Bulgaria is expected to be transported by Corridor X. The reference scenario predicts more than 10 million tonnes of road freight flows annually, which will be passing through Bulgaria along Corridor X. The volume of freight transported by rail is expected to rise to 5 million tonnes annually.

Similar volumes of road and rail freight flows passing through Bulgaria are predicted also in Scenario 2.

Two main trading poles have been identified on the basis of the two forecast scenarios – Turkey and Russia, which actually defines the main traffic flow destinations:

- The most intensive railway traffic is observed in flows from/to Russia along the Bulgaria – Romania – Ukraine – Russia axis, as well as from Turkey through Bulgaria to Germany
- The most intensive road traffic is observed to/from Russia and Turkey along the main axes:
  - Turkey – Bulgaria – Balkan states – Germany
  - Turkey – Bulgaria – Balkan states – Northern Italy – Southern France – Eastern Spain
  - Bulgaria – Romania – Ukraine.

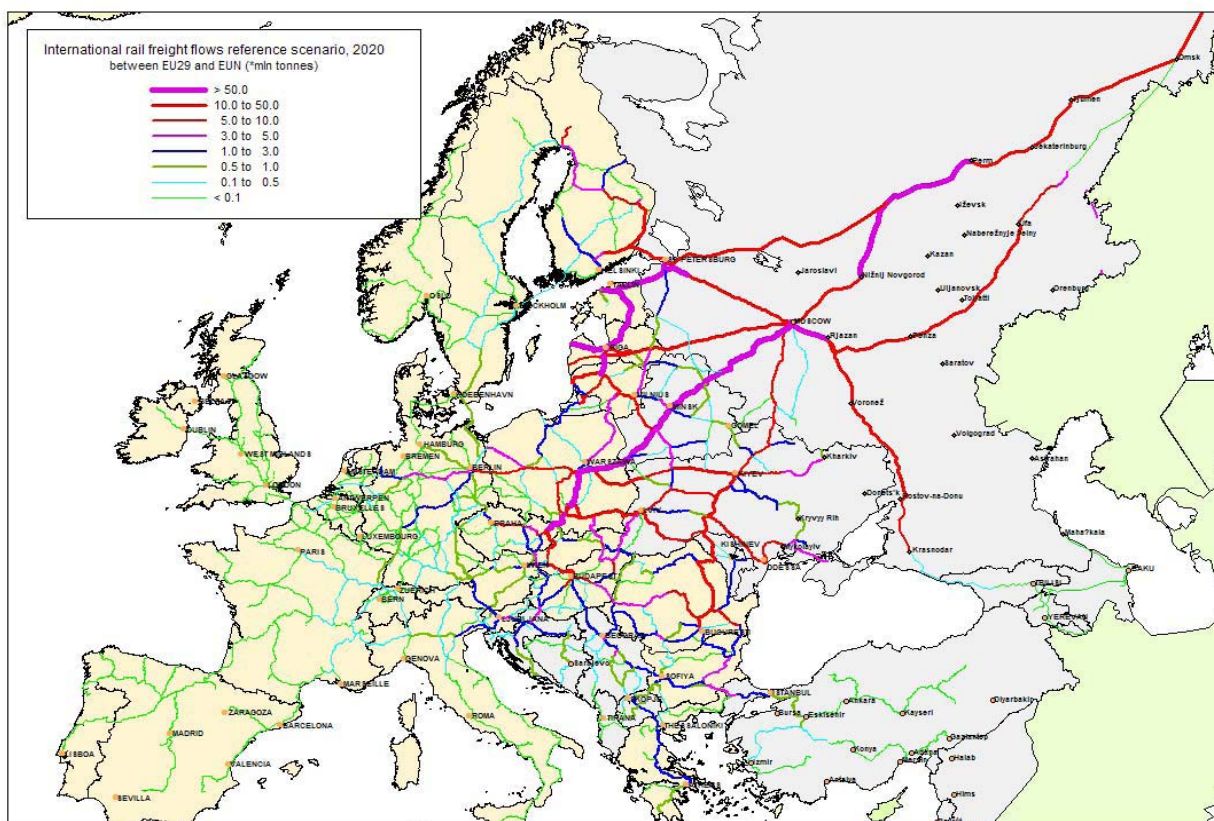
Improving the shipping conditions along the Danube River, in line with the tendency towards reassignment of road transport to the more environment-friendly inland waterway transport, follows the provisions of the European transport policy. This will create favourable conditions for accelerating the region’s economic growth.

Similar volumes of freight flows transported along the Bulgarian section of the Danube River are predicted by both Scenario 1 and Scenario 2. The expected freight traffic by 2020 in the section Vidin – Ruse will not exceed 10 million tonnes annually, while the forecasts for the section between Ruse and Silistra freight volumes are expected to raise above the 10 million tonnes a year level.

The forecasts for 2020 regarding the different transport modes indicate a predominant share of road freight flows compared to rail freight.

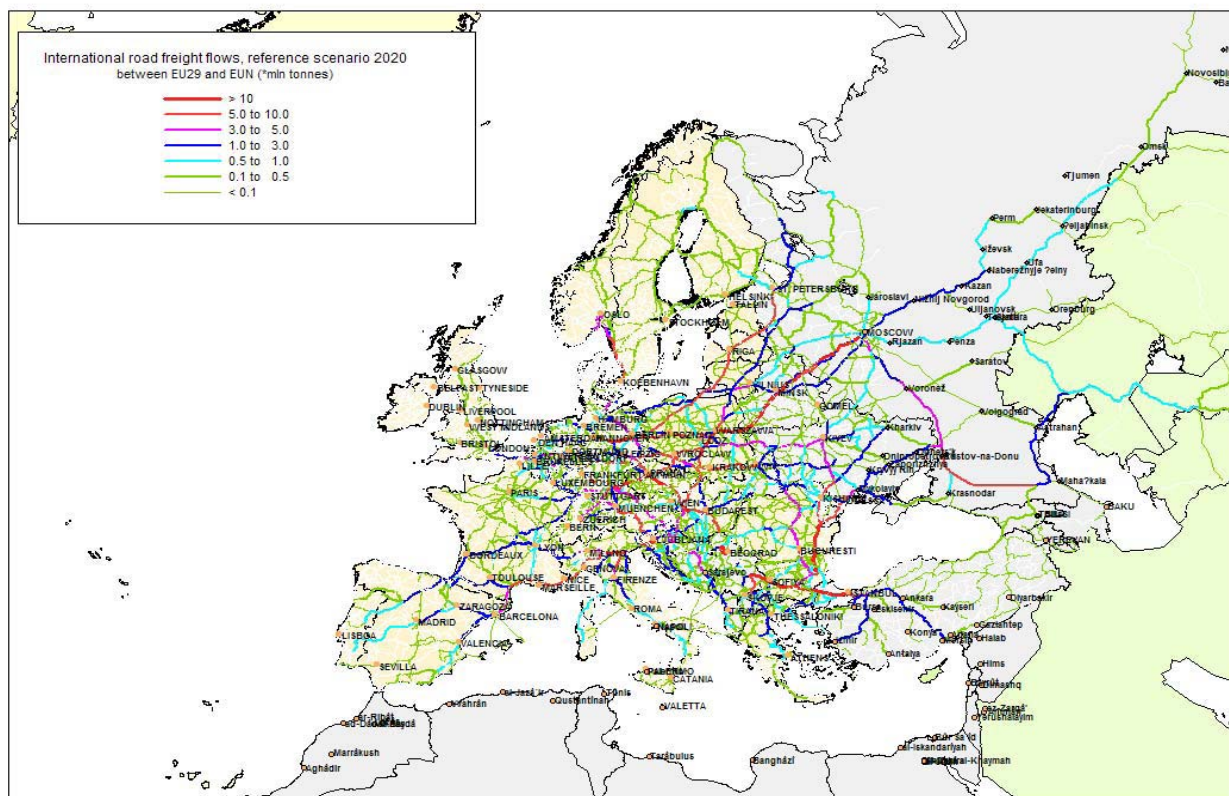
The growth trend forecast for inland waterway transport is attributed to the expected development of the infrastructure and improvement of shipping conditions.

**Map 1: International rail freight flows for 2020 (Reference scenario 1)**

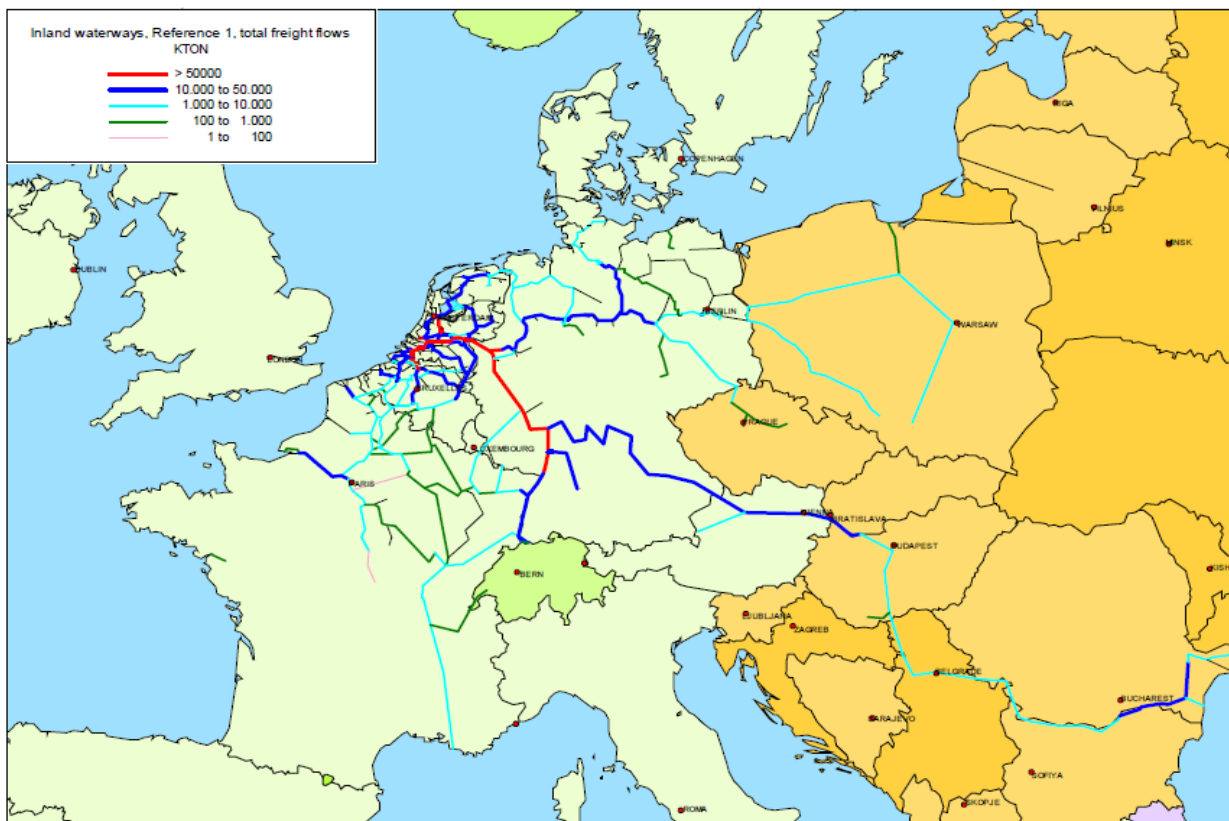




Map 2: International road freight flows for 2020 (Reference scenario 1)



Map 3: International inland waterways freight flows for 2020 (Reference scenario 1)



### **8.3. Development of the Trans-European Transport Network. Priority axes on Bulgaria's territory**

#### **8.3.1. Pan-European transport corridors**

The Second Pan-European Transport Conference, held in 1994 on the Island of Crete, approved a report on the future development of the Pan-European transport infrastructure, drafted on the basis of the Declaration of the Ministers, adopted at the First Pan-European Transport Conference, held in 1991 in Prague. The report was drafted jointly by the European Commission, the European Conference of the Ministers of Transport and the UN Economic Commission for Europe. The report identified nine multi-modal transport corridors of pan-European importance, which will be used as the basis for the future development of the transport infrastructure in Central and Eastern Europe as well.

The Third Pan-European Transport Conference, held in 1997 in Helsinki, made some amendments to the proposed axes of the nine corridors approved in Crete, and added a tenth multi-modal corridor. Four Pan-European transport zones were identified: the Barents Sea/Euro-Arctic area, the Black Sea basin, the Mediterranean area and the area around the Adriatic/Ionian Sea.

The main trends for development of the ten corridors indicate an increase: the capacity of the existing infrastructure to absorb the expected increase of traffic; the speed of movement (especially of the railway transport).

Special attention was paid to the organisation of the transport process, which includes the development of information technology, border crossing etc. It was decided that new transport links will be discussed only in exceptional cases.

Five transport corridors are passing through Bulgaria's territory:

#### **Pan-European Transport Corridor IV:**

Dresden/Nurnberg – Prague – Vienna/Bratislava – Budapest – Arad – Bucharest – Constanta/Craiova – Sofia – Thessaloniki/Plovdiv – Istanbul

#### **Pan-European Transport Corridor VII**

The Danube River

#### **Pan-European Transport Corridor VIII**

Durres – Tirana – Skopje – Sofia – Plovdiv – Burgas/Varna

#### **Pan-European Transport Corridor IX**

Helsinki – Saint Petersburg – Moscow/Pskov – Kiev – Lyubashevka – Chisinau – Bucharest – Dimitrovgrad – Alexandroupolis

+ Kiev – Minsk – Vilnius – Kaunas – Klaipeda/Kaliningrad

+ Lyubashevka – Odessa

#### **Pan-European Transport Corridor X**

Salzburg – Ljubljana – Zagreb – Nis – Skopje – Volos – Thessaloniki

Branch A: Graz – Maribor – Zagreb

Branch B: Budapest – Novi Sad – Belgrade

Branch C: Nis – Sofia – (Dimitrovgrad – Istanbul along the Corridor IV axis)

Branch D: Volos – Bitola – Florina – Via Egnatia – Igoumenitsa

Steering Committees were established to coordinate the development of the individual corridors, and Memorandums of Understanding were signed. Some of these memorandums specify additional links to the main axis of the corridor. Such additions were made to the Pan-European Transport Corridor VIII on Bulgarian territory. The following links were added to the main axis:

- **The railway link Gorna Oryahovitsa – Pleven – Sofia**
- **The road link Byala – Pleven – Sofia**
- **The road link Svilengrad – Burgas.**

### 8.3.2. TINA network

The Transport Infrastructure Needs Assessment (TINA) project plays a major role for the coordination and development of the links between the corridors in the EU membership candidate states. TINA is a European Commission project, whose ultimate objective is to create and expand Trans-European Network, including the transport networks of the 12 accession states from Central and Eastern Europe (in 1997). The components of the so-called TINA network have been defined as follows:

- Backbone (main) network, which is identical with the links and nodes of the ten multi-modal transport corridors on the territory of the TINA states
- Additional network components, proposed by the three TINA regional subgroups after an assessment of the proposals made by each of the states in compliance with the Trans-European Transport Networks concept and based on cost estimates.

The additional components of the TINA network on Bulgaria's territory are:

- **The railway link Mezdra – Pleven – Gorna Oryahovitsa**
- **The road link Ruse – Kaspichan – Sindel**
- **The road link Botevgrad – Pleven – Byala**
- **The road link Svilengrad – Burgas.**

### 8.3.3. Trans-European Transport Network priority development axes

The concept of a unified European market, characterised by the free movement of goods, persons and services, would be impossible to implement if the individual regions and national transport networks were not capable of offering comfortable, modern and efficient infrastructure to the markets in the individual states. This was the background for the emergence of the idea to create the Trans-European Transport Network (TEN-T) as a key component of economic growth and for creating jobs. The Commission drafts, and the European Parliament and European Council approve the guidelines, identifying the objectives, priorities and projects of common interest, and the major measures, which must be initiated in the sectors related to the Trans-European Transport Network.

The first guidelines for the development of the Trans-European Transport Network were approved by the European Parliament and the European Council in 1996. The review of the state of the transport network made in 2002 revealed that it is characterised by a disturbing increase of loads, persistent congestion and missing links, as well as by the absence of operational compatibility between the individual networks. The perspective for accession of 12 new member states highlighted the need for a new approach towards preserving the competitiveness of

European economy and providing guarantees for a balanced and sustainable development of transport; in other words it was decided that it is necessary to review the guidelines for the development of TEN-T.

The Van Miert High-level Group was established in 2003 with a main objective to review, by mid-2003, the criteria for selection of projects for the development of the European Union transport infrastructure, and to draft, on this basis, a list of new priority projects to be completed by 2020. The High-level Group confirmed the necessity to reassess the Trans-European Transport Network development guidelines, identified by the European Parliament and the European Council in 1996. New criteria were specified and introduced for the assessment of new projects, with attention focused on projects along the main trans-European axes identified by the High-level Group. High priority was assigned to projects with a pan-European importance, as well as to projects dedicated to improving social and economic inclusion and sustainable development of transport, with the emphasis placed on safety and environment protection issues.

The High-level Group identified, on the basis of these criteria and methods and in line with proposals submitted by the member states, a list of top-priority projects for the TEN-T development. The following projects with a direct impact on Bulgaria were included in this list:

- **Elimination of bottlenecks along the Rheine – Mein – Danube axis, including the whole section of the river on Bulgaria’s territory**
- **Modernisation of the Vidin – Sofia – Kulata railway line**
- **The construction of the Struma motorway (Sofia – Kulata).**

#### **8.3.4. Priority axes for connecting TEN-T to neighbouring countries and regions**

The European Commission established in late 2004 the High-level Group II, chaired by Ms. Loyola de Palacio, with the task to define the extension of the main trans-European axes towards EU neighbouring countries and regions and to specify the priorities projects for their development.

The **South-East Main Axis**, which links the European Union through the Balkans and Turkey with the Caucasus and the Caspian Sea, as well as with Egypt and Red Sea, is passing through the territory of Bulgaria. There are also links to Albania and Macedonia, Iran, Iraq and the Persian Gulf. The main multi-modal links, passing through our country, are:

- **Pan-European Transport Corridor X – Branch C: Belgrade – Nis – Sofia, and from there along Pan-European Transport Corridor IV – to Istanbul – TRACECA**
- **Pan-European Transport Corridor VIII, which runs from the Italian ports of Bari and Brindisi through Durres/Vlore – Tirana – Skopje – Sofia – Burgas/Varna**
- **The Danube River – the Sava River**

Black Sea axes and the Black Sea links to the Mediterranean are also included among the main motorways of the sea. These include **the links between the ports in Varna and Burgas to the ports in Ukraine, Russia, Georgia, and Turkey.**

#### **8.3.5. Conclusions**

No substantial changes in the status of Bulgaria’s neighbours are expected during the period until 2020. The chances of accession to the European Union of the states in the Western Balkan (with

the exception of Croatia) and Turkey are slim, which means that there will be no major change in the TEN-T priority axes. The process of development of the Trans-European Transport Network and the links to neighbouring countries and regions, described above, may be used to draw the following conclusions about the priorities by 2020 of the main axes, corridors and links, passing through Bulgaria's territory:

**Priority 1: The most important axes for the development of the Trans-European Transport Network:**

- The Vidin – Sofia – Kulata section of the Pan-European Transport Corridor IV
- Pan-European Transport Corridor VII: the Danube River.

**Priority 2: The most important axes connecting the Trans-European Transport Network with neighbouring countries and regions:**

Map 4: TEN-T priority development axes



- Pan-European Transport Corridor X – Branch C, Belgrade – Nis – Sofia, and from there along Pan-European Transport Corridor IV – to Istanbul – TRACECA
- Pan-European Transport Corridor VIII: Durres /Vlore – Tirana – Skopje – Sofia – Burgas/Varna
- Motorways of the sea: the links between the ports in Varna and Burgas and the ports in Ukraine, Russia, Georgia, and Turkey.

**Priority 3: Pan-European transport corridors, which are not covered by the main axes:**

- Pan-European Transport Corridor IX: Bucharest – Ruse – Dimitrovgrad – Alexandroupolis.

**Priority 4: Additional links from the TINA network**

- The railway link Mezdra – Pleven – Gorna Oryahovitsa
- The road link Ruse – Kaspichan – Sindel
- The road link Botevgrad – Pleven – Byala
- The road link Svilengrad – Burgas.

**8.4. Transport sector perspectives and challenges**

One of the major problems, identified in relation with the characteristics and qualities of the infrastructure, is the lack of comprehensive, uninterrupted and permanent transport networks, which would provide for the quick and safe movement over longer distances. The lack of highways between the major cities and border checkpoints could be used as an example. The transport projects, which were identified and which are in the process of construction, will not be sufficient to compensate this deficit, while the growth of transport demand will exacerbate the problem and will continue to affect the economic development in this country.

If current tendencies persist, then the state of many of the assets of the transport network will deteriorate. Additional demand for transport services will result in an overloading and amortization of infrastructure and in lower quality of services offered to users.

A small decline by 2020 is expected in the demand for railway transport services, attributed to the expected negative population growth, increased number of private cars, and without substantial changes in the railway services in terms of quality and speed.

After Bulgaria's accession to the EU, air passenger transport has been developing at high growth rates, attributed to the development of business, and of tourist industry. Air transport is facing fewer challenges than other transport modes, besides its problems could be more easily resolved.

Efficient intermodal transport supported by new and upgraded terminals, has the potential to provide advantages in three spheres:

- Improvement of the overall transport efficiency, which will reduce the costs for the operators and users and will boost economic development
- Reducing the growth rate of road freight traffic by creating additional incentives for using railway and waterborne transport and by commissioning modern intermodal facilities
- Incentives for the sustainable development of transport and the protection of the environment by reassignment of the passenger and freight traffic to more environment-friendly transport modes.

## 9. SWOT ANALYSIS OF THE BULGARIAN TRANSPORT SECTOR

The analysis of Bulgaria's transport system is the basis for assessments of its current strengths and weaknesses and of the opportunities and threats for its future development. All these factors must be taken into account when formulating the strategic priorities and measures of the transport policy.

### 9.1. Strengths of Bulgaria's transport sector

- Favourable geographic location, which provides opportunities for the development of transit transport along the five Pan-European transport corridors, crossing the country, and favourable conditions for communication between Western and Eastern Europe and the Middle East, Western and Central Asia
- High level of completion and density of the existing transport infrastructure – Bulgaria has more than 19,000 km of roads, more than 6,000 km of railways, as well as sea and inland waterway ports, and airports.
  - Developed public transport system, covering the whole country
  - High level of electrification of the railway transport
  - Existing links between the public transport ports of national importance and the national road and railway network
    - Communication via the Danube River with the European inland waterway network
    - Operational system for collecting fees for using the transport infrastructure
    - High level of deregulation of the transport market
    - High level of harmonisation of the national legislation with the EU legislation
    - Ongoing projects for development and modernisation of the transport system
    - Established system for training and professional qualification of the personnel.

### 9.2. Weaknesses of the transport system

- Unsatisfactory state and level of maintenance of the existing infrastructure
- Infrastructure over-capacity at a relatively low traffic, which should pay the costs for standard maintenance
  - The existence of “bottlenecks” within the transport infrastructure and insufficient connections with the transport networks of neighbouring states
    - Deficit of infrastructure suitable for high-speed transport
    - Insufficient utilisation of the capacity of the Danube River for domestic and international transport
  - Insufficient use of transport schemes and technologies, matching modern transport demands (combined/intermodal transport and logistics)
    - Insufficiently developed logistics infrastructure
    - Insufficient coordination among transport modes and absence of integrated networks and public transport services

- Deficit of financial assets for standard maintenance, modernisation and development of the existing transport infrastructure, as well as for research and development
- Lack of security for financing infrastructure projects and debts accrued for public services at a national level
  - Outdated transport stock and loading equipment at ports and terminals
  - Unequal market development of the various transport modes
  - Lack of genuine competition in individual segments of the transport market
  - Unsatisfactory quality of public transport services (urban, commuter, railway transport)
  - Lack of bypass roads around agglomerations, which affects traffic safety and results in pollution of the environment, and in higher social and energy costs for road transport
- Deficit of specialized port terminals with an adequate capacity, capable of efficient and competitive operations
  - Insufficient administrative capacity for the management and implementation of large infrastructure projects
    - Low level of technological compatibility for using the pan-European transport network
    - Low level of utilisation of information and telecommunication technologies in the transport sector
  - A relatively low level of safety and security of the transport system and services
  - Drop behind in transport research and its implementation due to insufficient financing.

### **9.3. Opportunities for development of the transport system**

- Growth in demand for transport services
- Attraction of Bulgarian and foreign investors and operators and improved utilisation of public-private partnership mechanisms as a result of Bulgaria's favourable geographic location
  - Modernisation of the sector through investments in infrastructure and new technologies
  - Efficient utilisation of the EU Structural and Cohesion funds as an opportunity for the development of the transport system
    - Raising the energy efficiency of the transport sector – creation of centralized management systems, introduction of new energy efficient transport means, new technologies and incentives for energy efficient transport modes
- Attraction of additional international transit traffic in order to achieve efficient utilisation of the transport infrastructure
  - Development of intermodal terminals and freight villages
  - Relocation of port terminals, causing environmental problems, outside central urban areas
  - Increased tourism traffic, balanced regional development and incentives for local tourism industry
  - Optimisation of navigation conditions and a more intensive utilisation of the Danube River



- Improved quality, higher safety and reliability of transport services by introducing intelligent transport management and control systems
- Improved quality of urban public transport services.

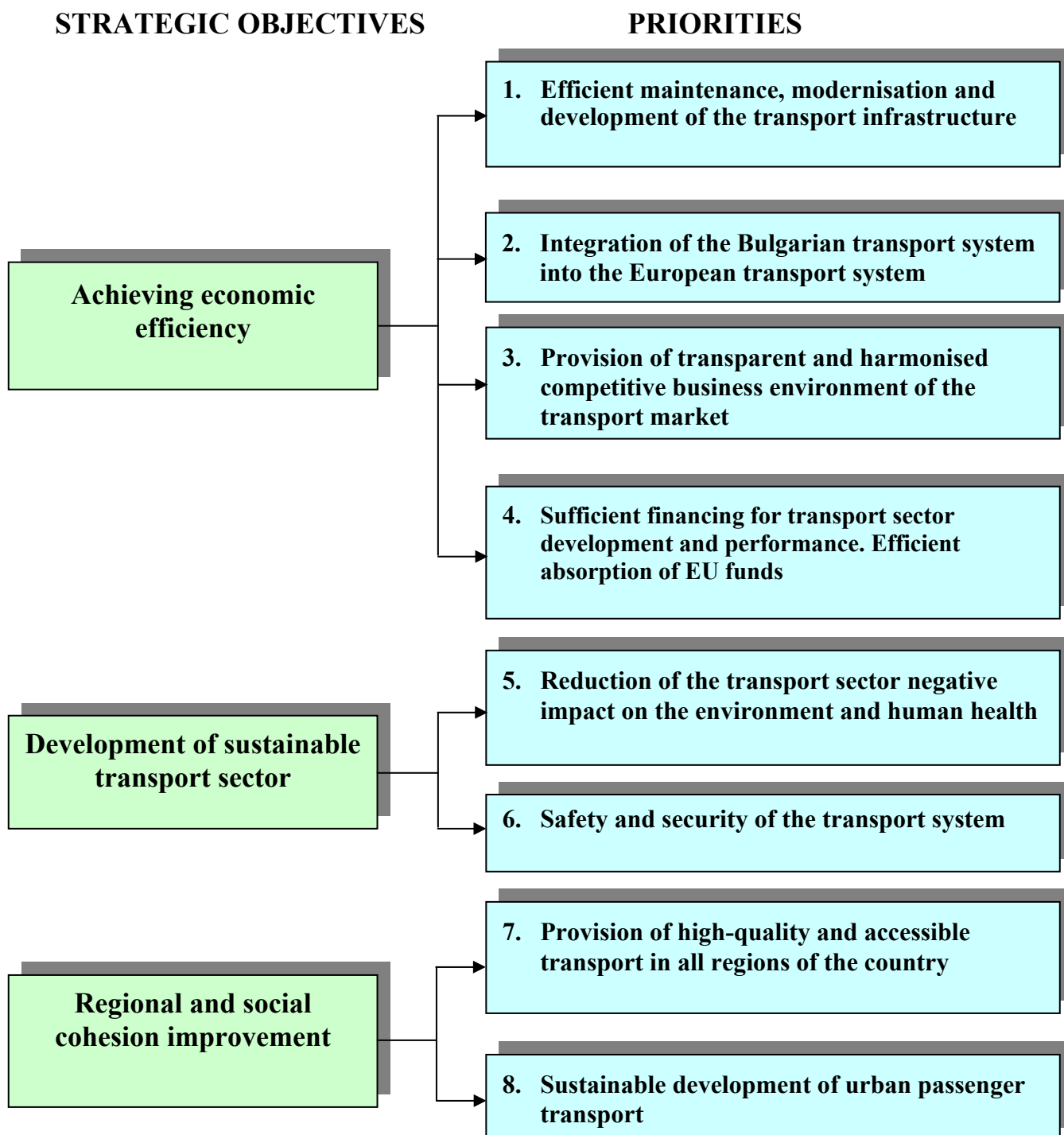
#### **9.4. Threats for the development of the transport system**

- Delay in reforms, restructuring and modernisation of the sector or of individual subsectors
  - Decline in the international transit traffic through Bulgaria
  - Intensive focusing on the development of international transport and neglecting the needs at a national and/or domestic regional level
  - Decline in the demand for transport services as a result of the restructuring of Bulgaria's economy towards industries, which do not require the import or the export of large quantities of raw materials and semi-fabricated products
  - Delays in the implementation of priority projects, which would increase the risk of redirection of international transit traffic through neighbouring states
  - Lack of a guaranteed and financially secure commitments by the state regarding public service obligations
    - Deepening the negative impact of transport operations on the environment and climate
    - Higher energy intensity of transport
    - Higher oil products prices on the international market
    - Further deterioration of the quality of the transport infrastructure as a result of insufficient funding for its maintenance, operation and development
    - A major increase in the volume of transport by private vehicles, which would result in the exhaustion of the capacity of the road network around large agglomerations and in longer transport times, congestion and harmful emissions
  - Outflow of qualified career personnel.

## 10. STRATEGIC PRIORITIES OF THE TRANSPORT POLICY

The following strategic priorities of the transport sector for the period until 2020 were identified on the basis of the formulated mission, vision and strategic objectives of Bulgaria’s transport sector, and accounting for the role of the state, the institutional framework, the development trends and the SWOT analysis:

Figure 2



**Priority 1 Efficient maintenance, modernisation and development of the transport infrastructure**

The analysis indicates that Bulgaria has a sufficiently dense railway and road networks, ports and airports. Because of a chronic deficit of funds, however, the components of these networks are in an unsatisfactory state of maintenance and require urgent measures for assuring compliance with the design parameters and/or technical operability, and modernisation, in order to match modern requirements. At the same time, traffic along these networks and nodes is limited and the fees charged for using the respective infrastructures are insufficient to cover costs. Hence, it is necessary to review the existing transport networks and nodes, with utmost attention focused on priority networks and facilities, while less stringent maintenance standards are specified for second-rate facilities. A portion of the existing infrastructure of local importance should be transferred for use and maintenance to interested parties – municipalities, industrial enterprises, private business etc., or should be closed in case no interest is displayed. It must be noted that the process of decentralization of the ports management has already started. This provides good opportunities for re-allocation of the limited financial assets to those sections of the network, which will assure economic and social returns within the shortest possible period.

At the same time and despite the existence of a transport infrastructure and untapped capacities on a national level, there are still “bottlenecks”, which – unless removed on time and in view of the expected growth in the demand for transport – will create serious problems in meeting all transport demands. This implies modernisation of the infrastructure in order to meet growing requirements in terms of capacity and quality.

Development and modernisation of the transport infrastructure should be based on the analysis of the costs related to a specific project and of the social benefits of its implementation and commissioning, and by taking into account the expected traffic intensity and the assessment of its environmental impact. The improvement of the infrastructure, combined with optimisation of traffic, will contribute to raising the energy efficiency of transport.

This priority objective covers also the commitments, assumed by Bulgaria according to the provisions of the EU Accession Treaty, to construct and upgrade close to 1,600 km of the main road network and increase its load-carrying capacity to 11.5 tonnes/axle by 2014.

The Ministry of Transport, Information Technology and Communications, being the authority in charge of drafting policies and guidelines for the transport sector, monitors European trends in the development of intelligent transport systems (ITS) and takes measures to assist in the implementation of the long and medium-term objectives for the introduction of ITS in Bulgaria. ITS are a key tool for the efficient utilisation of the existing infrastructure and for assuring a more efficient, safer, more secure and more environment-friendly transport, thus contributing to the creation of a sustainable mobility for the citizens and for the economy.

The specific infrastructure projects, which will be implemented during the next 10-year period, have been identified, or will be identified, in compliance with the following strategic documents: Strategy for development of the transport infrastructure by 2015, and a new infrastructure strategy, which must be drafted by 2014 and cover the period to 2020; OP Transport 2007-2013 and 2014-2020; General Transport Master Plan for Bulgaria, etc.

## **Priority 2 Integration of the Bulgarian transport system into the European transport system**

The integration of the Bulgarian transport system into the European transport system has several obvious positive dimensions – improvement and development of the physical/infrastructure links, achieving operational compatibility, attraction of international traffic through this country, and increasing the competitiveness of the Bulgarian transport companies.

The integration of Bulgaria's transport system is a prerequisite for achieving a comprehensive (political, economic and social) cohesion within a broader Europe and fully complies with the EU policy to overcome the existing imbalance between the central and peripheral regions of the Community. In view of the need to assure genuine freedom of movement of people and products, this priority is of an exceptional importance for Bulgaria, which – after its accession to the EU – already serves as an EU external border, or periphery.

Bulgaria's integration into the European structures creates the opportunity for construction, modernising and development of its infrastructure at much lower costs for this country. The preparation and implementation of large-scale projects requires a series of research efforts and procedures, drafting the relevant project, tender, environmental and expropriation documents, and the availability of the relevant expert and administrative capacity. Judging by relevant experience, this process takes a long time. That is why the all the procedures should be accelerated, so that Bulgaria would be able to utilise in full the financing options provided by the EU Structural and Cohesion funds. The development of the infrastructure and its opening to neighbouring states, as well as the stage-by-stage improvement of its operational compatibility in terms of transport along the Bulgarian sections of the Trans-European Network as a step towards attracting additional transport traffic, are all major components of the process of integration.

The key projects for development and modernisation of the transport infrastructure, which will support the integration within the transport networks on a European scale, will be defined within the framework of the EU Strategy for the Danube Region, which is currently being drafted. Partnership among the states of the Danube macro-region will assure a higher added value for these projects and a higher rate or return on investments.

The quality of the transport services depends to a major extent on transport operators. In this aspect, the integration of the Bulgarian transport operators into the European transport system will guarantee their competitiveness on the global transport services market. This objective requires further efforts to harmonise the measures for access to the market and the profession, for renovation and modernisation of the vehicles stock, for enhancing the marketing and commercial orientation of the transport subjects, and for a more efficient company management. Developing and application of efficient logistic chains under the current circumstances is not only a market requirement but also a factor, which generates a substantial added value to the purely transport activities.

At the same time, achieving a high competitiveness of the transport sector is an objective, which would be unattainable without intensive research and development efforts, which currently lag behind not only the average level in older member states but also in newer EU members, and without assuring the relevant professional and administrative capacity to match current conditions and requirements.

### **Priority 3 Provision of transparent and harmonised competitive business environment of the transport market**

Transport, being a component of economy, influences all others sectors, provides services to the public and generally operates on a market principle. Nevertheless, a deregulated market still requires an effective regulatory base, compliant with international standards and assuring public interest.

The process of restructuring of the Bulgarian transport sector and the deregulation of the market are seen as completed, but still the state continues to perform some unspecific functions. The market orientation of the state-owned sector companies is at a lower level compared to private companies.

In order to create equal conditions for competition among transport operators within the unified market, the EU has adopted the principle that users pay for the full social costs caused by them. One of the objectives of this priority is the gradual harmonisation of the access conditions to the respective infrastructure networks and facilities.

This priority complies with the EU policy for regulated competition and adoption of an efficient policy in setting infrastructure access fees. The priority matches also the commitments Bulgaria has assumed in line with the EU Accession Treaty in view of cabotage transport deregulation within the initial transition period. The objective of cabotage transport deregulation is to reduce the number of empty runs, thus increasing operators' revenues and reducing the impact on environment.

### **Priority 4 Sufficient financing for transport sector development and performance. Efficient absorption of EU funds**

Transport sector financing has several objectives:

- Construction, modernisation, maintenance and repairs of the infrastructure, in which the State plays the leading role, without excluding other financial sources (fees for using the infrastructure) and tools (various forms of public-private partnership)
- Renewal, modernisation and operation of the transport stock (a major obligation of transport operators)
- Public transport services, provided jointly by the State and the transport operators
- Research and development in the sphere of transport.

The specific features of infrastructure building and modernising include a long period of preparation and implementation of projects and the concentration of financial resources at a low rate of return on investments. In compliance with the basic principle of priority of public over individual and/or local interests, this fact implies the use of a combination of various financial schemes, mechanisms and sources, namely:

- Public funds – the state budget, EU Structural and Cohesion funds
- Resources, generated by facilities on concession, which basically means the transfer of revenue from fees for access to infrastructure
- Private capital, participating in project financing by public-private partnerships for the implementation of projects and/or providing services, which are traditionally offered by the public sector

- Other resources, including bank loans mainly from the European Investment Bank, the European Bank for Reconstruction and Development, by the World Bank, by the Japan Bank for International Cooperation, as well as from other international financial institutions.

The analysis of the current state of Bulgaria's transport sector indicates that a major portion of the existing transport stock is physically and morally outdated; however, with the high level of privatization in this sector and in a deregulated market environment, renewal and modernisation of the transport stock is a top priority task for the private sector. In this sense, the basic role of the State is to create the relevant favourable regulatory opportunities and to provide financing for new rolling stock only to state-owned enterprises.

The obligation to provide public transport services requires adequate financial resources for co-financing/compensation, allowing long-term planning for improving services quality. At the same time the contracts, which would guarantee compensation of the losses accrued by transport operators as a result of the obligation to provide public services, place these operators in a more advantageous position, as entrepreneurial risks would be eliminated to a major extent. Operators are not sufficiently stimulated to streamline operational costs, to use their full capacities and increase revenue, which does not favour the creation of a more favourable business environment. All these factors must be taken into account when drafting new, more detailed contracts for providing public services, in which it should be clearly stated what is the expected quality of the services by using the funds provided by the State.

In view of the delay in the field of research and development in the sphere of transport, and in the application of the results in practice, as stated in the SWOT analysis, it is necessary to initiate measures in several aspects:

- Support for transfer of know-how and new technologies at an international level within the framework of common development research in the EU
- Support for research in the sphere of environment-friendly transport modes, energy saving technologies and alternative energy sources and their application in practice
- Raising the efficiency of research and development efforts.

### **Priority 5 Reduction of the transport sector negative impact on the environment and human health**

The analysis of the development of Bulgarian transport sector over the last several years has highlighted major structural changes and upward trends for the share of road transport in the total transport performance. The road passenger transport performance (in passengers-km) rose from 56% in 2000 to 71.3% of the total passenger transport performance in 2007, which is equivalent to a 15.3 percentage points increase for the seven-year period. For the same period, this indicator within the EU remained practically unchanged at a level of about 84%<sup>5</sup>. A similar trend was observed in freight transport, where road transport increased its relative share from 52.3% to 70% of the total freight transport performance (tonnes-km), which is equivalent to a 17.7 percentage points increase. The EU member states average increase is only 2.8 percentage points. These structural changes result in a drastic rise in the overall energy consumption of the transport sector in Bulgaria, which rose by 47.5% in 2007 compared to 2000. For the same period, the overall increase of the energy consumption by transport in the EU member states rose by an average 8.7%.

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<sup>5</sup> Eurostat data: <http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators/theme7>

This line of development will result in an increase of noise and the emissions of harmful gases, which have a negative impact on environment and climate, thus lowering the quality of life in urban agglomerations. The emissions of harmful gases in Bulgaria rose by 39.1% for the seven-year period, compared to the EU average of only 7%. The increase for road transport stood at 51.7% for the same period, and its share in the total amount of greenhouse emissions from transport activities in 2007 rose to 88.4%.

It must be noted that the total freight transport performance in 2007 rose by 21.3% compared to 2000, while total passenger transport performance fell by 0.7%<sup>6</sup>.

Limiting the harmful effect of transport on the environment, climate and quality of life requires the introduction of, and incentives for using fuels and energy from alternative and renewable sources, as well as the development and increased share of environmentally compatible transport modes. The optimal balance in using the potential of the different transport modes, by reassignment of transport to more environment-friendly transport modes (railways, inland waterways, electric vehicles), as well as the expansion of the metropolitan, are seen as being among the most efficient means to achieve this objective. The development of transport vehicles powered by accumulator batteries (hybrid and fully electric) will also contribute to limiting the harmful impact on environment. The issues related to electric transport vehicles is becoming more and more topical on the background of the measures initiated with the objective to overcome climate changes and the economic crisis in the automotive industry. In a long-term perspective, the mass production of electric cars will help car manufacturers to match the goals set by the Community in terms of CO<sub>2</sub> emissions from cars and will also contribute to the common objective to reduce carbon dioxide emissions.

Minimizing the negative effects on public health and on the environment would be attainable at sustainable levels of energy consumption by transport and by a drastic reduction of noise and greenhouse gases.

The introduction of European standards for light and heavy trucks in terms of particulate matter and nitrogen oxide emissions, the introduction of environmental requirements and tax relief for the acquisition of vehicles for public transport purposes as incentives for the market of environmentally compliant and energy efficient vehicles, as well as increasing the market share of bio-fuels used in transport to 5.75% by 2010, and to minimum 10% by 2020, and devising strategic noise maps along major roads, railway lines and airports will all contribute to decreasing the harmful effects of transport on the environment and public health.

The implementation of the “Single European Sky” (SES) project by 2020 will substantially reduce the negative impact of air transport on climate by optimising the scheme for managing air traffic in Europe. As a result, in-flight carbon dioxide emissions will be reduced by 10%, and the capacity of the air control system will be tripled. In view of this, it is exceptionally important to create by 2012, jointly with Romania, the Danube functional airspace block, which will be Bulgaria’s and Romania’s contribution to the project.

The complex implementation of the measures intended within the framework of this priority will

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<sup>6</sup> The data was published in the Republic of Bulgaria Statistical Yearbook for 2004 and 2008. Total passenger transport volumes do not include transport by private cars, as the National Statistical Institute does not publish such data.

contribute to the sustainable development of the transport sector in full compliance with EU policies. The major objective, which must be implemented between 2010 and 2020, is the creation of sustainable transport system, which will match the economic, social and environmental requirements and which will be fully integrated and competitive. A higher-level of integration of the individual transport modes is a tool for improving the overall efficiency of the system and for accelerating the development and commissioning of innovative technologies.

### **Priority 6 Safety and security of the transport system**

The analysis of Bulgaria's transport sector indicates that the creation of a sustainable transport system and assuring the required quality of transport services may not be effectively attained without an adequate state policy aimed at raising the level of safety and security of all transport modes. This policy complies with the commitments assumed by the Republic of Bulgaria as member of international organisations, dealing with the different transport modes, and with the policies and objectives of the European Union for increasing the safety and security of transport.

The state policy of the Republic of Bulgaria regarding the safety and the security of transport operations aims at the introduction, by means of the relevant regulatory base, of the international and European safety and security standards applicable to the different transport modes. This policy is expected to strengthen the trust of transport services users and of all other participants in the operations of the country's transport system.

State programmes for the safety of the different transport modes will be used as the basis to determine the institutional framework of requirements regarding the guarantees for safety and security, and the obligations of all authorities and organisations in the transport sector in charge of assuring safe and reliable transport of people and freight as well as of the state system for exercising control on the enforcement of these requirements.

Exercising efficient control on the compliance with the international, European and national safety and security standards is a major component of the state policy regarding the transport sector. The integration of systems for technical safety, the complex approach to transport safety and the application of methods for the assessment of transport risks are the main tools for prevention and for achieving higher levels of transport safety. Increasing the operational speed of transport means, the construction of the relevant infrastructure, and the creation of transport flows and loading/offloading operations management systems with a high level of automation and centralization, the introduction of new requirements in terms of the safety of the transport infrastructure, of the transport means and management systems imply that the state must pursue an active policy for improving administrative capacities and qualification of the state regulatory and control authorities, so that their actions would to a maximum extend support the development of the transport system and at the same time exercise an efficient control in the introduction of, and the compliance with safety and security requirements.

Independent technical investigation of traffic accidents is an important component in assuring transport safety, as its objective is solely to establish the causes for a specific accident and to eliminate the conditions, which would allow a similar accident to take place again. Independent technical investigation of traffic accidents is an important component. In terms of safety, independent technical investigation of traffic accidents is a major component also of the efforts to assure the safety and security of transport and to raise the transparency and reliability of the transport system. The policy of the state regarding the independent technical investigation will continue to focus on strengthening the independence of the technical investigation and on



improving the administrative capacity of the investigation authorities within the transport system.

The creation of a transport system with a high level of safety and security will have a positive impact on the demand for transport services provided by Bulgarian transport organisations on a national, European and international scale.

This priority complies with the major guidelines of the EU transport policy to assure the safety of the different transport modes and protect the lives and health of the users of transport services.

### **Priority 7 Provision of high-quality and accessible transport in all regions of the country**

The transport sector is of key importance for Bulgaria's economy (and for any economy in general), both because of its role as a link among the other economic sectors, and because of its own contribution to the gross value added and employment.

The main function of the transport sector is to meet the transport demand of the public and of the economy on a national, regional, district and local level while minimizing social costs. The economic and/or social development of the separate regions, and especially of the regions in the periphery, would be impossible without high-quality, reliable and affordable transport services.

The policy in the sphere of improving the quality of transport services and the sustainable development of public transport requires the solution of a broad spectrum of social, financial, technological and infrastructure problems at a local, national and international level.

The main problem identified in the analysis of the Bulgarian transport sector is related basically to quality and not to the volume of the offered services. Hence, the measures, related to implementing this priority task, should be dedicated to meeting users' requirements in terms of availability, access and reliability of transport, with the main tool being the creation of integrated transport systems.

The introduction of intelligent transport systems will contribute to improving the overall performance of the transport system. The use of information systems is of crucial importance for the monitoring of the transport chains and would improve management and help achieving a higher level of integration of transport flows. The creation of road traffic monitoring, control and management will improve traffic management.

The creation of a high-quality transport system will play a major role in support of a balanced territorial and sector development. It will have a positive impact on the prosperity of small and large agglomerations by making them more easily accessible.

This priority complies with the main guidelines of the EU transport policy for placing users in the focus of transport policies.

### **Priority 8 Sustainable development of urban passenger transport**

As a result of the increase of personal incomes, motor vehicle density and the use of private cars is expected to increase. This was confirmed during the last several years by the trend towards a decrease in travels by urban passenger transport. The end effect of these processes is the saturation of roads by vehicle traffic (congestion), mostly in urban and suburban regions, and by

a decrease in the use of railway and public transport. As a result, there has been a growing need for subsidies as the state is obliged to provide transport services to the people.

The creation of conditions, which would make public transport attractive also for social groups with a better material status, is perhaps the most difficult task facing the transport strategy. The factors, which could assist in attracting passengers to rely on public transport services, include higher quality and highly simplified access, the optimisation of the transport schemes and their integration, including the creation of integrated charge collection, coordinated schedules for the different transport modes and the application of a flexible tariff policy.

This priority complies with the main guidelines of the EU transport policy for developing the concept for a sustainable urban mobility of the public, which consists of incentives for the use of all types of transport vehicles and a combination of various types of public transport with various types of individual transport.

Urban regions face an enormous challenge within the context of sustainable development: combining economic development and accessibility, on the one side, and improving the quality of life and the protection of the environment, on the other.

Urban mobility must boost the economic development of cities, improve the quality of life and protect the environment. Implementing the urban mobility concept will result in:

- Reducing congestion in cities
- Optimised use of private cars
- Reduced noise and pollution in cities
- Improved urban transport organisation
- Creating a more easily accessible urban transport, especially for people with reduced mobility, disabled persons, elderly people, families with small children, and for children
- Higher reliability and safety of the urban transport
- The initiation of a package of physical, regulatory, financial and information measures for traffic management.

The use of intelligent transport systems will improve operations management and will allow offering new services (car pool management, passenger information systems, charge collection systems, etc.).

## 11. IMPLEMENTATION AND MONITORING

### 11.1. Implementation of the Strategy

The national transport policy is implemented by the Council of Ministers through the Minister of Transport, Information Technology and Communications. In this sense, the **Council of Ministers** controls the implementation of the objectives, priorities and measures as outlined in the Strategy as a whole. This is performed by reports on the implementation of short and medium-term programmes and plans. The Control authority in charge of financial issues is the **Ministry of Finance (MF)**, on regional development issues – the **Ministry of Regional Development and Public Works (MRDPW)**, and on environment protection issues – the **Ministry of Environment and Water (MEW)**.

The **Ministry of Transport, Information Technology and Communications** is in charge of the **implementation** of the strategic priorities as a whole and acts in cooperation with:

- MRDPW and MF on Priority 1, “Efficient maintenance, modernisation and development of the transport infrastructure”, Priority 2 “Integration of the Bulgarian transport system into the European transport system”, Priority 4 “Sufficient financing for transport sector development. Efficient absorption of EU funds”
- MRDPW, MF and the Ministry of Economy, Energy and Tourism (MEET) on Priority 3 “Provision of transparent and harmonised competitive business environment of the transport market”
- MEW, Ministry of Interior (MI) and MEET on Priority 5 “Reduction of the transport sector negative impact on the environment and human health”
- MI and MRDPW on Priority 6 “Safety and security of the transport system”
- MRDPW and the Municipalities on Priority 7 “Provision of high-quality and accessible transport in all regions of the country”, and Priority 8 “Sustainable development of urban passenger transport”.

It is necessary to develop further the cooperation at all levels with regional and local authorities, and with the European Commission.

Measures should be initiated for integrating the policies in terms of regional development, town planning, human resources, and others, in order to reduce the risks as identified in the SWOT analysis.

The following entities **perform consultative functions** related to the implementation of the Strategy:

- Branch and nongovernmental organisations
- Consultative councils on the different transport modes
- The Transport Science and Technology Union
- The academic community and others.

The Ministry of Transport, Information Technology and Communications, together with the National Statistical Institute, are in charge of collecting, processing and analysis of the necessary

statistical data, which is used in formulating the transport policy, in the monitoring and in the implementation of the policy priorities.

This Strategy is based exclusively on the fundamental principle of the European Union for close cooperation with the relevant authorities at a national, regional and local level, and with the economic and social partners. The partnership principle is applied at all stages of planning, management, implementation, monitoring, and assessment of follow-up strategic documents. The expected benefits from the application of this principle are:

- Increasing the development capacity
- Improving the quality of planning and programme activities
- Raising the efficiency of programme measures.

### **11.2. Monitoring**

The monitoring system is focused on the implementation of the following strategic documents:

- Strategy for the development of the transport infrastructure of the Republic of Bulgaria by 2015
- Operational Programme on Transport 2007 – 2013 and 2014 – 2020
- General Transport Master Plan for Bulgaria
- Medium-term (4-year) and short-term (annual) plans.

Monitoring is performed on an annual basis and includes:

- Review and report on the implementation of the objectives of the transport policy and of the strategic priorities
- Analysis of the indicators for the implementation of measures, and attaining priorities
- Follow-up assessment of the results of the implemented measures.

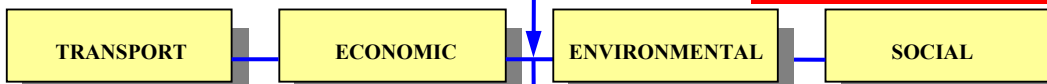
Figure 3: STRUCTURE OF THE TRANSPORT POLICY OF THE REPUBLIC OF BULGARIA

**Transport sector mission**

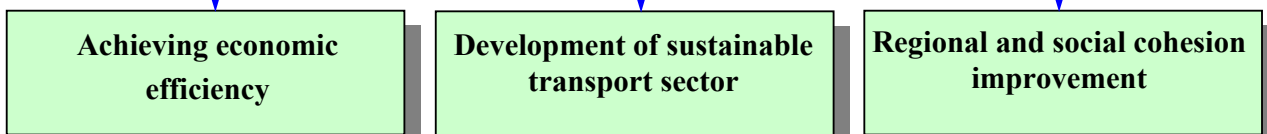
The mission of Bulgaria’s transport sector is to support the economic and social development of the country by:

- Providing efficient, effective and sustainable transport
- Supporting a balanced regional development
- Assisting in Bulgaria’s integration in the European structures, taking into account its crossroad location and its transit potential

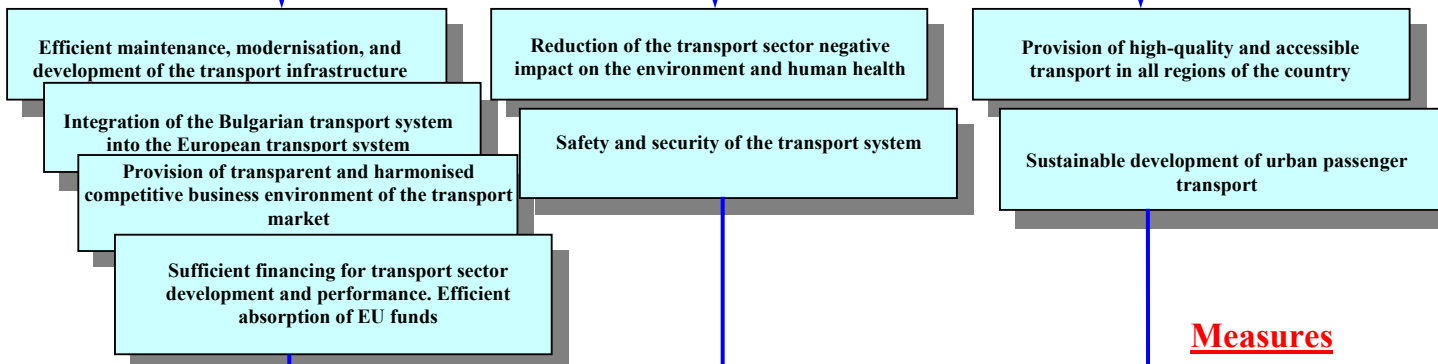
**Transport policy principles**



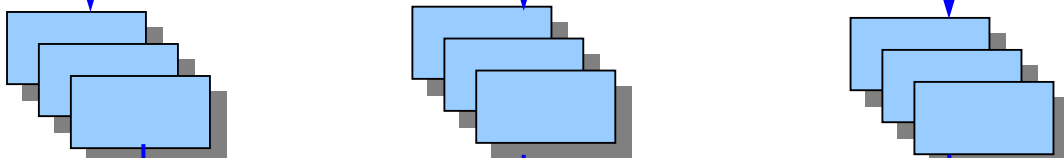
**Strategic objectives**



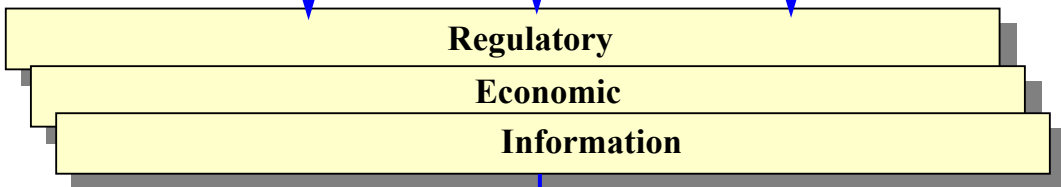
**Strategic priorities**



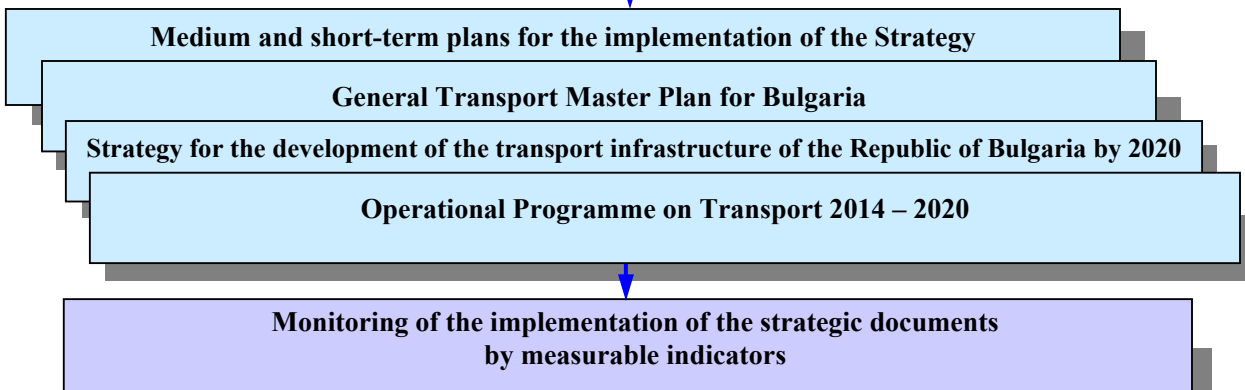
**Measures**



**Tools**



**Follow-up strategic documents**



Monitoring of the implementation of the strategic documents by measurable indicators

## 12. MEASURES FOR THE IMPLEMENTATION OF THE STRATEGIC PRIORITIES

### 12.1. Priority 1

#### Efficient maintenance, modernisation and development of the transport infrastructure

##### *Measure 1 Acceleration of the implementation of infrastructure projects in the sphere of railway, road, inland waterway, air and combined transport*

Two Operational Programmes on Transport will be implemented during the period under consideration. The first programme covers the period from 2007 to 2013, and the second – from 2014 to 2020. The projects scheduled for implementation according to OP “Transport” 2007 – 2013 are distributed into the following 4 priority axes:

- **Priority axis 1** “Development of railway infrastructure along the major national and Pan-European transport axes” – Modernisation of Sofia – Plovdiv railway line; Electrification and reconstruction of Svilengrad – Turkish border railway line; Renewal of railway section along Plovdiv – Burgas railway line (along the Trans-European transport network); Modernisation of Sofia – Dragoman railway line (along the Trans-European transport network); Modernisation of Vidin – Sofia railway line

- **Priority axis 2** “Development of road infrastructure along the major national and Pan-European transport axes” – Modernisation of section of I-1 (E 79) Vratsa – Botevgrad (E 79); Vidin – Montana; Kardjali – Podkova; Connection of the Hemus Motorway to the Sofia Ring Road; Construction of Struma Motorway – Lots 1 and 4; Constriction of Maritsa Motorway – from km 5 to km 72; Completion of the construction of Trakia Motorway – Lots 2, 3 and 4

- **Priority axis 3** “Improvement of intermodality of passenger and freight” – Extension of the Metropolitan Sofia from Nadejda – Central Railway Station and Central Bus Station, square “Sveta Nedelya” – bul.”Cherni vruh” and “Mladost” – “Drujba” to the new terminal at the Sofia Airport; Construction of intermodal terminal in Sofia

- **Priority axis 4** “Improvement of maritime and inland waterway navigation” – Improvement of the navigation on the Danube in joint Bulgarian – Romanian parts: from rkm 530 to rkm 520 – Bathin from rkm 576 to rkm 560 – Belene; River Information Services System in the establishment of Bulgarian part of Danube River; Vessel Traffic Management Information system – phase 3.

Implementation of the following infrastructure projects, co-financed by ISPA/CF 1164/94 will be completed during the period from 2010 to 2020: Reconstruction and electrification of Plovdiv – Svilengrad railway line; Construction of new combined (road/rail) bridge over the Danube River at Vidin – Calafat (Bulgaria/Romania); Construction of Lyulin Motorway: Sofia Ring Road – Daskalovo Road Junction; Technical assistance for the rehabilitation of Plovdiv – Burgas and Mezdra – Gorna Oryahovitsa railway lines; Technical assistance for the modernisation of the railway lines along the Trans-European transport corridors (TEN-T) in Bulgaria; and Technical assistance for the preparation of road projects along Trans-European transport corridors (TEN-T) in Bulgaria.

The remaining infrastructure projects, which will be implemented during the next 10-year period, as described in the relevant priority, have been identified or their identification is pending in the relevant strategic documents.

***Measure 2 Improving the technical and operational state of the transport infrastructure of national importance***

The objective of the measure is to improve the quality of services offered by the transport infrastructure of national importance and to reduce operational costs of transport operators and users. The results expected from the implementation of this measure are:

- Increasing the share of the transport infrastructure, which is in a good technical condition
- Restoring the design parameters along the main railway destinations
- Shortening transit times
- Improving the efficiency of utilisation of the rolling stock and reduction of operational costs
- Attraction of international transit traffic
- Improving traffic safety and reducing the number of accidents caused by infrastructure
- Assuring an efficient transport support for Bulgarian business.

***Measure 3 Development and modernisation of the transport infrastructure***

The objective of the measure is to create conditions for an integrated planning and development of the main transport infrastructure in compliance with the volume and characteristics of transport demand. The results expected from the implementation of this measure are:

- Increasing the capacity and removing the “bottlenecks” of the transport infrastructure with the aim to assure obstacle-free traffic for increasing transport flows in the main network destinations
  - Development of high-speed transport infrastructure
  - Attraction of international transit traffic with the objective to raise the efficiency of infrastructure use
  - Modernisation of the transport sector by investments in infrastructure and modern technologies as a prerequisite for the economic development of the country
  - Assuring an efficient transport support for the Bulgarian business
  - Raising the competitiveness of Bulgaria’s economy.

***Measure 4 Operation and maintenance of the transport infrastructure in compliance with the technical norms and standards***

The objective of the measure is to create the suitable infrastructure conditions for meeting transport demand by quality transport services, and to arrest the process of de-capitalization of national transport infrastructure assets and an optimal utilisation of the available financial and technical resources. The results expected from the implementation of this measure are:

- Sustainable maintenance of the transport infrastructure of national importance in a good technical and operational state
  - Reduction, in the long-term perspective, of the costs of repairs and rehabilitation of the infrastructure
  - Reducing operational costs of transport operators and private users

- Improved quality of transport services
- Modernisation of the transport sector by investments in infrastructure and modern technologies as a prerequisite for the economic development of the country.

***Measure 5 Development of the logistics infrastructure***

Taking into account the important role of transport logistics for business, and the role of the Ministry of Transport, Information Technology and Communications in creating a favourable environment for the operation of logistic systems, the next several years will see efforts focused on creating optimal conditions for parallel development of both the transport infrastructure along the priority Trans-European axes, and of the necessary intermodal terminals, creating conditions for their growth into freight villages.

The implementation of the following projects in this sphere will continue, namely:

- Implementation of the project “Construction of intermodal terminal in Sofia”, in line with the OP “Transport”
- Construction of intermodal terminals in the cities of Ruse and Plovdiv
- Construction of container terminals at Port Burgas – West and Port Varna – East
- Design and construction of new intermodal terminals in response to emerging needs.

**12.2. Priority 2**

**Integration of the Bulgarian transport system into the European transport system**

***Measure 1 Active participation in drafting European policy in the sphere of transport and strengthening of the international cooperation***

The measure is related to the following activities:

- Proactive participation in the activities of the EU institutions as well as in NATO Transport Planning Boards and Committees
- Proactive participation in the managing bodies of the European transport axes and corridors
- Punctual, comprehensive and timely European legal instruments implementation into Bulgarian legislation in the sphere of transport, information technology and communications
- Strengthening the control over European legal instruments implementation into the Bulgarian legislation
- Improving the conditions for Bulgarian transport operators international markets’ access
- Maintaining good international relations and transforming the country into a major factor for the stability of the region
- Improving the social and economic relations with the EU member states as well as the neighbouring states

***Measure 2 Fulfilling the European infrastructure and services standards along the Bulgarian TEN-T axes***



The objective of this measure is to create suitable conditions for the involvement of the Bulgarian transport system in the process of globalisation, and taking advantage of Bulgaria's favourable geostrategic location. The results expected from the implementation of this measure are:

- Efficient utilisation of the funds from the EU Cohesion Fund and Regional Development Fund
- Modernisation of the transport sector by investments in infrastructure and modern technologies as a prerequisite for the economic development of this country
- Improving the quality of transport services along the Pan-European transport corridors
- Raising the competitiveness of inland waterway transport, attraction of freight from road to inland waterway and intermodal transport, and development of transit river – sea – river transport.

### 12.3. Priority 3

#### **Provision of transparent and harmonised competitive business environment of the transport market**

##### ***Measure 1 Further liberalisation of the transport market***

The objective of this measure is to create a stable and transparent competitive environment at the market for domestic and international transport of passengers and freight by applying the EU free market economy requirements. The results expected from the implementation of this measure are:

- Improving the quality and efficiency of Bulgaria's transport system
- Comprehensive response to the public and business demand for transport services.

##### ***Measure 2 Assuring transparent and harmonised conditions for competition between and within the different transport modes***

The objective of this measure is to create non-discriminatory conditions for competition on the market of transport services with the objective to raise the competitiveness of Bulgaria's transport sector and of the economy as a whole. The results expected from the implementation of this measure are:

- Improving the commercial orientation and the level of market development of transport subjects
- Improving the quality and raising the efficiency of Bulgaria's transport system
- Better response to public and business demand for transport services
- More efficient utilisation of public financial resources in compliance with public interests
- Preservation and gradual increase of the market share of the railway transport
- Development of intermodal transport.

***Measure 3 Modern management of state-owned assets in the transport sector***

The objective of this measure is to relieve the state of un-specific management functions and to emphasize the regulatory and control role of the state. The results expected from the implementation of this measure are:

- Improved marketing policies (financial, investments, social, etc.) of the state-owned companies and enterprises
- Improved quality and efficiency of Bulgaria's transport system
- More efficient utilisation of public financial resources in compliance with public interests
- Improved management and control of state-owned enterprises in the transport sector with the objective to assure a more efficient utilisation of public financial resources
- Attraction of private Bulgarian and international operators
- More intensive use of public-private partnership schemes.

**12.4. Priority 4**

**Sufficient financing for transport sector development and performance. Efficient absorption of EU funds**

***Measure 1 Improving the management and implementation of projects financed by EU funds***

- Timely implementation of projects, financed by the ISPA programme and by the OP "Transport", with the objective to assure an efficient utilisation of EU funds
- Creation of transparent criteria for selection and assessment of projects, and for follow-up control of their implementation
- Timely start of projects within the OP "Transport", which supports investments in the construction, modernisation and rehabilitation of the railway and road infrastructure, and the development of intermodality in passenger and freight transport.

***Measure 2 Development of the transport infrastructure by using the mechanisms of public-private partnership***

Limited state budget funds and the need for substantial investments in modernising the transport infrastructure imply searching for alternative sources and financing schemes. The construction of modern transport infrastructure requires time, long-term approach and assuring stable financial flows. The implementation of infrastructure projects by public-private partnership schemes is an opportunity to make the most of the private sector's experience in applying innovations for development of the transport infrastructure.

- Organising and successful completion of concessions procedures on various projects
- Attracting private entrepreneurs by port and airport concessions
- Raising the competitiveness of the transport system as well as the economy.

***Measure 3 Acquisition of statistics data and analyses required in the strategic and operative decision-making regarding the transport sector***

The objective of this measure is to provide information on the performance of the transport sector and on related social and economic indicators, in scope and quality sufficient for drafting and making motivated operative and strategic decisions. The results expected from the implementation of this measure are:

- Improving the quality of analyses and forecasts on the development of the transport sector
- Improving the quality of the preparatory stages and accelerating project implementation
- Streamlining operative and strategic decision at all levels of the transport sector
- Contributing to the transport sector quality and efficiency improvement.

## **12.5. Priority 5**

### **Reduction of the transport sector negative impact on the environment and human health**

***Measure 1 Limiting harmful emissions and pollution, and the negative impact on climate caused by the transport sector***

The objective of this measure is to create suitable conditions for reducing the negative impact of transport on the environment as a component of the set of measures for a sustainable development of the sector. The results expected from the implementation of this measure are:

- Limiting harmful noise and gas emissions released by transport
- Creating conditions for renewal of the rolling stock and introduction of high technologies and innovations (including the development of electric and hydrogen-driven vehicles)
- Reducing the pollution in the Bulgarian sections of the Black Sea and the Danube River
- Reducing the relative share of road transport in the overall transport operations
- Improving the living environment and conditions
- Contributing to the implementation of the commitments assumed by Bulgaria with the Kyoto Protocol and the UN Framework Convention on Climate Change.

***Measure 2 Creation of a favourable environment and conditions for a substantial growth of intermodal transport***

The objective of this measure is to promote the use of the environment-friendly transport modes as well as to increase the added value of transport operations. The results expected from the implementation of this measure are:

- More efficient utilisation of railway and inland waterway transport
- Development of transport schemes and technologies, matching the modern requirements regarding the impact on the environment and climate
- Improving the coordination and integration of the different transport modes
- Reducing the costs for transporting passengers and freight

- Integrating Bulgaria's transport system into the transport system of the EU, and raising its competitiveness.

## 12.6. Priority 6

### Safety and security of the transport system

#### *Measure 1 Creation of a new and updating the existing regulatory base for the introduction of international and European safety and security standards*

The objective of this measure is to proceed with updating and upgrading the national regulatory base in the field of transport safety and security. The results expected from the implementation of this measure are:

- Achieving a full compliance between national safety and security standards for the different transport modes and the standards applied by specialized international and European institutions
- Drafting and implementation of state safety programmes for the different transport modes with the objective to assure the highest level of safety and security for passenger and freight transport
- Increasing the efficiency of the actions of the specialized institutions in charge of traffic control, the use and maintenance of the transport infrastructure and the rolling stock's good working conditions
- Considerable reduction in traffic accidents and in number of deaths and injuries.

#### *Measure 2 Strengthening the administrative capacity in terms of traffic safety control and investigation of traffic accidents*

The objective of this measure is to increase the efficiency of the activities of specialized independent state authorities within the MTITC in charge of the control and investigation of traffic accidents. The results expected from the implementation of this measure are:

- Creation of the relevant administrative capacity at the executive agencies for performing their duties related to the control, safety and security of the different transport modes
- Development of programmes and the creation of a mechanism assuring permanent improvement of the qualification of the administrations in charge of the different transport modes
- Strengthening the independence of the authorities in charge of the technical investigation of transport accidents and the establishment of a Board for transport accidents investigations in the Republic of Bulgaria
- Raising the qualifications of the personnel in charge of investigating incidents related to the different transport modes.

## 12.7. Priority 7

### Provision of high-quality and accessible transport in all regions of the country

#### *Measure 1 Raising the level of access to natural un-urbanized regions and to peripheral territories with a low level of urbanization*

The objective of this measure is to assure transport links to regions with reduced accessibility according to specific needs and regional development plans. The results expected from the implementation of this measure are:

- Assuring a better response to public transport demand in natural un-urbanized regions and in peripheral territories of low-level urbanization (rural, border and mountainous regions)
- Improving the parameters of the transport infrastructure of regional importance
- Improving the quality of transport services
- Reducing the gap between the highly urbanized central territories and the peripheral territories of low-level urbanization
- Support to regional development and avoiding de-population in natural un-urbanized regions and in peripheral territories of low-level urbanization.

#### *Measure 2 Higher quality of transport services*

The objective of this measure is to satisfy public and economic demand for transport services in compliance with the regional social and economic development. The results expected from the implementation of this measure are:

- Increased competitiveness of the transport sector
- Accelerated regional development in the country
- Increased mobility of people as one of the indicators of the quality of life
- Improved accessibility for people with limited mobility, elderly people and families with small children.

#### *Measure 3 Streamlining the procedures for contracting and assignment of public passenger services*

The objective of this measure is to increase the quality of, and to optimise the costs of public transport services. The results expected from the implementation of this measure are:

- Optimisation of the transport schemes
- Drafting a basically new republican transport scheme, which will tie bus lines to passenger train schedules
- Increasing the competitiveness of Bulgarian transport operators
- Streamlining the procedures for drafting contracts related to performing public services obligation (PSO).

***Measure 4 Provision of financial means for public services obligation (PSO)***

The objective of this measure is to assure the financial means for state reimbursement and subsidies for PSO at optimised PSO costs. The results expected from the implementation of this measure are:

- Quality services to the public in compliance with the actual needs, regional development and with the social commitments assumed by the state
- Efficient long-term planning of these activities and of the related costs covered by PSO operators
- Optimisation of revenue and costs of PSO operators and improvement of their financial situation
- Attracting the interest of private operators to passenger transport by rail and introducing competition in this market segment
- Growth in the public passenger transport volume
- Better regional cohesion.

***Measure 5 Renewal and modernisation of the vehicles,rolling stock and fleet, facilities and equipment***

The objective of this measure is to create suitable conditions for the involvement of the Bulgarian transport system in the process of globalisation, and increasing the competitiveness of the Bulgarian transport companies. The results expected from the implementation of this measure are:

- Upgraded, modern cars, rolling stock, ship and aircraft fleets
- Improved transport services quality
- Reduced transport operational costs
- Improved competitiveness of the Bulgarian transport operators
- Stage-by-stage introduction of the technical specifications for interoperability
- Increased safety
- Reduced negative impact of transport on the environment, climate and quality of life.

## **12.8. Priority 8**

### **Sustainable development of urban passenger transport**

***Measure 1 Development of integrated networks and public transport services***

The objective of this measure is to optimise coordination between the different transport modes for an efficient utilisation of their advantages and of the transport infrastructure. The results expected from the implementation of this measure are:

- Improved quality of the public transport services
- Reduced congestion in the cities
- Increased public transport share in city travels
- Restricting the growth in using private motor vehicles

- Reduced pollution and noise in the cities
- Improved organisation of the public transport.

### ***Measure 2 Optimisation of the public transport in suburban areas of large agglomerations***

The objective of this measure is to create favourable conditions for public transport users in their daily trips to work and school. The results expected from the implementation of this measure are:

- Improved quality of suburban transport services performed by public transport
- Increased share of short-distance travels by public transport
- PSO providers in good financial shape
- Optimisation of PSO budget costs/reimbursements
- Improving town planning in large urban agglomerations.

### ***Measure 3 Sustainable financing of urban passenger transport***

The objective of this measure is to assure the financial resources required for the stable operation of public transport. The results expected from the implementation of this measure are:

- Proper implementation of social commitments to specific categories of citizens
- Optimisation of revenue and costs of PSO operators as a prerequisite for improving services quality
- Assuring financial means from various international banking and non-banking institutions for renewal of the transport pool in compliance with the European standards and requirements.

**LIST OF ABBREVIATIONS**

AGTC	European Agreement on Important International Combined Transport Lines and Related Installations
BDZ EAD	Bulgarian State Railways EAD
BPIC	Bulgarian Ports Infrastructure Company
BULATSA	Bulgarian Air Traffic Services Authority
CF	Cohesion Fund
CM	Council of Ministers
DG “CAA”	Directorate General “Civil Aviation Administration”
DG-TREN	Directorate General Energy and Transport
EA “AA”	Executive Agency “Automobile Administration”
EA “MA”	Executive Agency “Maritime Administration”
EA “EMDR”	Executive Agency “Exploration and Maintenance of the Danube River”
EA “RA”	Executive Agency “Railway Administration”
EASA	European Aviation Safety Agency
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECE	Economic Commission for Europe
ECMT	European Conference of Ministers of Transport (transformed into International Transport Forum)
EIB	European Investment Bank
ERTMS	European Rail Traffic Management System
EU	European Union
GDP	Gross domestic product
GVA	Gross value added
ICAO	International Civil Aviation Organization
ISPA	Instrument for Structural Policies for Pre-Accession
ITS	Intelligent transport systems
MEET	Ministry of Economy, Energy and Tourism
MEW	Ministry of Environment and Water
MF	Ministry of Finance
MI	Ministry of Interior
MRDPW	Ministry of Regional Development and Public Works
MTITC	Ministry of Transport, Information Technology and Communications
NAVIBULGAR <sup>®</sup>	Navigation Maritime Bulgare
NRIC	National Railway Infrastructure Company
NSI	National Statistical Institute
OP	Operational programme
pass-km	passengers-kilometre r
PSO	Public services obligation
RO-RO	Roll-on/Roll-off transport
TEN-T	Trans-European Transport Network
ton-km	tonnes-kilometre
UN	United Nations



**LIST OF DOCUMENTS**

1. National ISPA Strategy for the Transport Sector
2. Operational Programme on Transport 2007 – 2013
3. Operational Programme Regional Development 2007 – 2013
4. Strategy for the Development of the Transport Infrastructure of the Republic of Bulgaria by 2015
5. Strategy for Integration of the Bulgarian Railway Infrastructure into the European Intermodal Transport Network
6. General Transport Master Plan for Bulgaria – draft
7. National Strategic Reference Framework 2007 – 2013
8. Programme of the Government of European Development of Bulgaria
9. Programme Statement of the Government of European Development of Bulgaria
10. Vision on a New Policy for the Development of the Bulgarian Railways 2008 – 2013
11. Schedule for the Introduction of ERTMS in the Republic of Bulgaria
12. National Regional Development Strategy of the Republic of Bulgaria for the period 2005 – 2015
13. National Strategy for Environment 2009 – 2018
14. National Strategy for the Improvement of Road Traffic Safety in the Republic of Bulgaria 2007 – 2010
15. National Strategy for sustainable development of Tourism in the Republic of Bulgaria 2009 – 2013
16. National Long-term Programme for Incentives for Use of Renewable Energy Sources 2005 – 2015
17. National Long-term Programme for Energy Efficiency until 2015
18. Programme for Increasing Energy Efficiency in the Transport Sector by Applying Energy Saving Measures
19. First National Action Plan for Energy Efficiency 2008 – 2010
20. National Long-term Programme to Encourage the Use of Biofuels in the Transport sector 2008 – 2020
21. National Program for the Development of Public Transport Ports by 2015 – draft
22. Strategy for the Sustainable Development of the Republic of Bulgaria – draft
23. Forecasts for the Main Macro-economic Indicators of Bulgaria 2006 – 2020, Agency for Economic Analyses and Forecasts
24. White paper “European transport policy for 2010: time to decide”
25. Mid-term Review of the White Paper 2006
26. Community Guidelines for Development of the Trans-European Transport Network
27. Communication from the Commission on “A sustainable future for transport: Towards an integrated, technology-led and user-friendly system”

28. Communication from the Commission on „Rail Freight Oriented Network” and the follow-up Proposal for Regulation of the European Parliament and of the Council „European Railway Network for Competitive Freight”
29. Communication from the Commission on the “Strategic goals and recommendations for the EU’s marine transport policy until 2018”
30. Blue Book: “An Integrated Maritime Policy for the European Union”
31. Communication and action plan with a view to establishing a European maritime transport space without barriers
32. Communication from the Commission on a European Ports Policy
33. Black Sea Synergy – a new regional cooperation initiative
34. Third Maritime Safety Package (Erika III)
35. Communication on the Promotion of Inland Waterway Transport “NAIADES” an Integrated European Action Programme for Inland Waterway Transport
36. “Flying Together”: EU Air Transport Policy
37. Green Paper on TEN-T: “A policy review – Towards a better integrated trans-European transport network at the service of the common transport policy”
38. Green Paper on Urban Mobility
39. Action Plan on Urban Mobility
40. Communication from the Commission “Freight Transport Logistics Action Plan”
41. Communication from the Commission Action plan for the deployment of Intelligent Transport Systems in Europe
42. Communication from the Commission “Environment Policy Review 2008”
43. Communication from the Commission “Progress towards achieving the Kyoto objectives”
44. Eurostat: <http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators/theme7>
45. European Environment Agency: <http://www.eea.europa.eu/themes/transport/indicators>