#### THE GOVERNMENT OF THE REPUBLIC OF LITHUANIA

#### **RESOLUTION No 692**

#### of 23 June 2005

# ON THE APPROVAL OF LONG-TERM (UNTIL 2025) DEVELOPMENT STRATEGY OF THE LITHUANIAN TRANSPORT SYSTEM

Vilnius

The Government of the Republic of Lithuania h a s r e s o l v e d:

1. To approve a Long-Term (until 2025) Development Strategy of the Lithuanian Transport System (as appended).

2. To establish that the Long-Term (until 2025) Development Strategy of the Lithuanian Transport System approved by this Resolution shall be implemented using the allocations from the State budget of the Republic of Lithuania, municipal budgets, EU funds, and other financing sources.

3. To repeal Resolution No. 15 of the Government of the Republic of Lithuania of 13 January 1994 On the National Transport Development Programme of the Republic of Lithuania (*Valstybės žinios* (Official gazette) No 5-72, 1994).

Prime Minister Minister of Transport and Communications Algirdas Brazauskas Petras Čėsna

# LONG-TERM (UNTIL 2025) DEVELOPMENT STRATEGY OF THE LITHUANIAN TRANSPORT SYSTEM

#### I. GENERAL PROVISIONS

1. The Long-term (until 2025) Development Strategy of the Lithuanian Transport System (hereinafter – the Strategy) complies with the provisions of the Programme of the Government of the Republic of Lithuania for 2004-2008, approved by Resolution No. X-43 of the Seimas of the Republic of Lithuania of 14 December 2004 (*Valstybės žinios* (Official Gazette) No 181-6703, 2004).

2. At present, only fragments of the Lithuania's Long-Term Transport and Transit Development Strategy have been included in the Long-Term Economic Development Strategy of Lithuania until 2015, which was approved by Resolution No. 853 of the Government of the Republic of Lithuania of 12 June 2002 (*Valstybės žinios* (Official Gazette) No 60-2424, 2002). In the National Long-Term Transport and Transit Development Strategy only strategic goals and measures of development of individual transport modes are given in more detail, whereas one of the key directions of the transport policy of the European Union (hereinafter – the EU) and Lithuania is to strengthen the interoperability of transport modes. In passenger transport, it is a conceptual framework of "a single ticket" (when a single ticket allows transferring from one mode to another). In freight transport, much attention is being paid to the intermodal transport centres, and to establish modern logistic centres - "freight villages" or simply transport centres, and to integrate them into the network of transport centres being created on the continent of Europe and in the Baltic Sea region.

3. The Strategy gives an analysis of the long-term development perspectives of the establishment of the new generation public logistic centres ("freight villages"). In addition, it emphasises the importance of intermodal interoperability when developing Lithuanian transport infrastructure. The road, railway, seaport and airport infrastructure have to be modernised and developed in a coordinated way, so that intermodal operators could employ effective transportation technologies and processes and that sustainable development of different transport modes and their proper interoperability with the transport systems of the neighbouring states (especially EU Member States) are achieved.

4. Alongside general policy measures, this Strategy also presents the development measures of individual transport modes planned for specific periods: until 2006, 2013, and 2025.

# II. VISION AND MISSION OF THE LITHUANIAN TRANSPORT SYSTEM VISION OF THE LITHUANIAN TRANSPORT SYSTEM

5. By 2025, in Lithuania, a modern and sustainable multimodal transport system, which by its technical parameters, safety and service quality will measure up to the level of the old EU Member States, have to be created. Effectively interacting with transport systems of its

neighbouring states, it will enable the business sector to successfully expand its activities, and people of Lithuania will be able to conveniently reach European tourism, culture and business centres with minimum time losses. The Lithuanian transport sector will become an important element of the southern region of the Baltic Sea and, by providing high quality services; it will serve common needs and interests of Lithuania and the enlarged EU.

# MISSION OF THE LITHUANIAN TRANSPORT SYSTEM

6. A mission of the Lithuanian transport system is to guarantee a seamless mobility of the public and carriage of freight by maintaining a dynamic development of the national economy and to increase a competitive capacity of Lithuania and the enlarged EU in international markets.

To define a mission of public authorities in the field of development of the transport system, it is essential to analyse two most important segments of this broad system: the infrastructure and its users (carriers, operators) having different specific features of functioning and activity development. Within the transport system, carriers, operators and other transport service providers operating under market conditions have to work in a competitive environment. Thus, in this transport segment, only market mechanisms and competition are the key catalysts of success and progress. Here, the role of public authorities should be limited to the creation and guaranteeing of equal competitive conditions for all transport service participants, usually acting on the basis of private ownership and initiative, whereas the efficiency of the transport infrastructure (mostly acting on the basis of public ownership) and benefits of its development in the civilised world are being assessed on the scale of an individual region or the whole country rather than on that of an individual enterprise. Transport networks in Europe, like in other continents, are a drive for competitiveness of a common market artery or even of markets. Therefore, the development and modernisation of transport infrastructure are one of the essential measures that ensure economic progress in working out national economy development strategies and programmes of both the EU and individual Member States. Besides, public authorities may not dissociate themselves from the solution of traffic safety and environmental issues (as it is established in international conventions), most of which may not be solved without solving the issues of modernisation and development of transport infrastructure. Taking account of the present-day demands, the National Longterm Transport and Transit Development Strategy pays special attention to the issue of transport infrastructure development.

# III. ANALYSIS OF THE CURRENT STATE OF LITHUANIAN TRANSPORT SYSTEM

7. This Strategy has been drafted following Strategic Planning Methodology approved by Resolution No. 827 of 6 June 2002 of the Government of the Republic of Lithuania (*Valstybės žinios* (Official Gazette) No. 57-2312, 2002) and the analysis and forecasts of economy and transport sector development trends in Lithuania, taking account of the long-term strategy provisions of the Long-term Economic Development Strategy of Lithuania until 2015. The new trends of EU transport sector development have also been taken into consideration.

8. The long-term forecasts of statistic indicators of the Lithuanian transport sector development and of economy and transport sector development trends of Lithuania, as well as the SWOT analysis of the transport system have been the key factors and conditions used as the basis when drafting the Strategy.

9. Working on the long-term forecasts of Lithuanian transport development, the following three possible scenarios of Lithuanian economy growth were taken into consideration: rapid economic growth (optimistic); slow economic growth (pessimistic); and a basic scenario drafted by the Ministry of the Economy, based on moderate economic growth. According to the Long-term Economic Development Strategy of Lithuania until 2015:

9.1. The rapid economic growth scenario until 2010 envisages a very rapid growth of Lithuania's economy (gross domestic product (hereinafter – GDP) will on the average increase by 7% a year), as especially rapid expansion of Lithuania's industry is expected, and the common economic development policy will be highly favourable for large investment intended for economic modernisation and acquisition of new technologies, while the EU technical and economical aid will be effective. In the period 2010 to 2015, the GDP growth will be slower, of up to 3% a year.

9.2. A slowdown in the growth of the average annual GDP (2% until 2010 and 3% after 2010) forecasted in the slow economic growth scenario will be predetermined by low domestic and foreign investment, slower economic restructuring, and unforeseen economic and political crises.

9.3. The basic moderate economic growth scenario drafted by the Ministry of the Economy envisages that until 2010 the average annual GDP growth will be 4.7%. As in the other two scenarios, it is assumed that after 2010 the GDP will be growing by 3% a year.

10. The economic development of Lithuania is and will be predetermined in future by multiple internal and external factors. Lithuania's accession to the EU has created favourable conditions for the approximation of the overall economic level of the country to the EU's average. Experts' group working on the long-term global development forecasts the average annual GDP growth of the Western European states and Eastern European states (including the Baltic States) by 2.0-2.4% and by 5.8% respectively by 2020. In Lithuania, the real GDP growth in the past two years has greatly surpassed the most optimistic forecasts. Over 2004, the GDP of Lithuania has grown by 6.7%, and Lithuania was among the fastest-developing European states. However, finance analysts forecast a slower growth of GDP in Lithuania, due to lower investment (especially foreign) in the national economy in recent years.

11. Following the forecast of freight carriage volumes in Lithuania, of various chosen indicators (national income, GDP, average monthly wage, household income and spending, public property, consumer and producer price index, change in consumer goods and services) the GDP fits best of all. According to the forecasts, in Lithuania the volume of freight carriage in 2020 should be twice as big as in 2004, i.e. up to 198.53 million tons (according to the basic GDP growth scenario). According to the optimistic scenario of freight carriage, the carriage volume should increase up to 234.07 million tons, while according to the pessimistic one it should increase only up to 140.03 million tons.

12. These forecasts substantially coincide with the long-term (2000-2015) transport flow forecasts for Central and Eastern Europe given in the TINA Programme prepared in 1999 on the initiative of the European Commission. According to these forecasts, during the given period the domestic transport volume, export, and import on the major motorways of the Central and Eastern Europe region will increase respectively by 70%, 150%, and 140%. Besides, it is forecasted that passenger traffic will increase 3 or 4 times.

13. The results achieved in the Lithuanian transport sector in 2002-2004 correspond to the above-mentioned forecasts. The year 2004 was particularly successful for the Lithuanian transport sector, which generated 9.5% of GDP. Freight carried by all transport modes amounted to 102.4 million tons, i.e. 1.4% more than in 2003 (100.9 million tons). In 2004, freight carriage by rail hit its record high (since 1990) with 45.6 million tons of freight

carried (almost 5% more than in 2003). In 2004, the public enterprise Klaipėda State Seaport (hereinafter – Klaipėda Seaport) and Būtingė Terminal handled 27.5 million tons of freight, which was 13.9% lower than in 2003 (31.9 M tons). Crude oil and oil products accounted for almost half (49.8%) of all freight, and their handling in 2004 went down by 21.2% (13.7 million tons handled in 2004; 17.4 million tons handled in 2003). The number of carried containers has been growing: in 2004, the number of containers handled was 174.2 thou TEU (Twenty-foot Equivalent Unit) or 47.2% more than in 2003, which is the most rapid development compared with eastern seaports of the Baltic Sea. In 2004, road transport carried 51.5 million tons of freight (1.4% fewer than in 2003). The number of passengers serviced at international airports reached its record high, i.e. 1.1 million (38.9% more than in 2003).

#### **IV. SWOT ANALYSIS**

14. The object of the analysis is to foresee further goals and measures of the transport system development so that the Lithuanian transport sector is competitive and meets the increasing needs in transport service markets of both Lithuania and the enlarged EU.

15. Strengths:

15.1. the geographical situation of the country that is favourable for transit (two transport corridors of continental importance cross the territory of the country);

15.2. an ice-free Klaipėda Seaport with a modern container terminal and reconstructed 14meter deep berths in the northern part of the port;

15.3. a well-developed road network and a high quality system of their maintenance and repair;

15.4. good political and economic relations with neighbouring countries;

15.5. an almost completed privatisation of commercial structures of the transport sector ;

15.6. experienced scientific potential of the transport sector (an increasing number of Lithuanian scientist are being invited to contribute to international programmes and projects);

15.7. a high level of motorisation;

15.8. a high-level transport specialists' training system;

15.9. navigable Ro-Ro lines create favourable conditions for development of maritime shipping, sea motorways and intermodal transport, as well as for multimodal transport;

15.10. comparatively high tourism potential (consisting of lakes, rivers, the area of Nemunas river valley, the Curonian Lagoon, etc.)

16. Weaknesses:

16.1. the railway infrastructure is physically worn out;

16.2. the rolling-stock fleet is outdated;

16.3. the network of electrified railway lines is under-developed;

16.4. railway transport depends on freight transit policy of the Russian Federation;

16.5. Klaipėda Seaport infrastructure is not suited for passenger services;

16.6. road and railway connections with EU countries via Poland is poor;

16.7. a fleet of urban and suburban buses is obsolete;

16.8. no bypasses in some cities of the country;

16.9. urban roads are not adjusted for intensive traffic;

16.10. terminals of international airports do not meet the Schengen requirements;

16.11. outdated aircraft instrumental landing system and light installation systems of international airports;

16.12. no legal and organisational basis for the promotion of intermodal transport;

16.13. no legal basis that regulates a mechanism of modernisation and development of the transport infrastructure, applying the principles of private-public capital partnership;

16.14. mechanism for organisation, coordination and development of intermodal (combined) services of passenger transport is not created;

16.15. high accident rate of road transport, especially of passenger cars;

16.16. negative environmental impact of transport (particularly motor transport);

16.17. insufficiently strong interoperability of passenger transport modes;

16.18. insufficient capacity of container terminals of Klaipėda Seaport (incapable of receiving container ships of third and fourth generations);

16.19. the depth of the water area of Klaipėda Seaport is lower than that of competitive ports;

16.20. insufficiently efficient interoperability of Klaipėda Seaport and Lithuanian railway network, under-developed railway network in port area;

16.21. under-developed access roads to Klaipėda Seaport;

16.22. incomplete information system of Klaipėda Seaport;

16.23. insufficiently balanced development of infrastructure of Klaipėda Seaport, affecting efficiency of the use of investments;

16.24. underdeveloped inland waterway transport: the inland waterway ports do not meet the current requirements and vessels are obsolete.

17. Opportunities:

17.1. to adapt the EU legal standards and to make use of the EU financial aid for the development and modernisation of the Lithuanian transport sector;

17.2. to establish modern public logistic centres in Kaunas, Klaipėda, Vilnius and, by necessity in other regions (Panevėžys and Šiauliai) as well, and to integrate them into the network of transport logistic centres of the Baltic Sea region;

17.3. to apply the principles of the private-public partnership (PPP) when financing the transport infrastructure;

17.4. to develop the infrastructure of airports and to expand the transit of passengers and freight;

17.5. to use general aviation for air taxi and tourism purposes;

17.6. to effectively establish positions in the transport service market of the continental Europe;

17.7. to expand sea motorways and associated land transport systems;

17.8. to adjust Klaipėda Seaport to satisfy the transit needs of Lithuania, the enlarged EU and third countries;

17.9. to increase freight flows to the west-east direction at Klaipėda Seaport, adjusting it for the economic interests of both Lithuania and the enlarged EU;

17.10. to develop potential of inland waterway transport to carry both passengers and freight;

17.11. to modernise passenger scheduled transport, i.e. to renew it technically, combine services of individual transport modes, and introduce new ticket systems (as well as a "single ticket" approach);

17.12. to modernise traffic management and control systems, i.e. to maintain traffic safety, and improve the throughput of streets and roads;

17.13. to form a modern north-south transport axis.

18. Threats:

18.1. insufficient coordination of actions with the neighbouring countries when developing the trans-European networks;

18.2. traffic jams in the largest towns of the country; growing crisis of the public passenger transport due to overdue adaptation of the passenger transport to the rearrangement of production forces and the changed planned situation of cities, towns and settlements;

18.3. the growing competition in the neighbouring states resulting from the expansion of sea transport (ports, logistic centres, sea motorways) is sometimes against the interests of Lithuania;

18.4. limited opportunities of air companies to compete in the liberalised air transport market and with carriers of a "low-fare" system;

18.5. the railway tariff policy is not balanced with the neighbouring countries;

18.6. the increasing traffic loading might result in more traffic accidents on roads.

# V. GOALS OF LITHUANIAN TRANSPORT SYSTEM DEVELOPMENT

19. The analysis of the state of the Lithuanian transport sector enables defining the following key long-term goals of the Lithuanian transport system development:

19.1. to achieve the level of transport service quality and technical parameters of the old EU Member States;

19.2. to effectively cooperate with the transport systems of the neighbouring countries; to become an integral and important link of the transport system (West-East) of the Baltic Sea region.

19.3. to enable people of Lithuania to conveniently and rapidly reach main cultural, tourism and commercial centres of Europe;

19.4. to effectively serve the interests of Lithuania and the enlarged EU, to increase competitive capacity in international markets.

# VI. KEY DIRECTIONS OF TRANSPORT POLICY

20. The Strategy gives the following key directions of the general Lithuanian transport policy:

20.1. development of transport infrastructure;

20.2. development of intermodal transport;

20.3. development of information technologies and intelligent transport systems;

20.4. transport development and environmental protection;

20.5. traffic safety improvement in road transport;

20.6. protection of transport infrastructure installations, freight and passengers;

20.7. strengthening of administrative capacities.

21. On the basis of the analysis of every transport mode, the Strategy defines specific objectives and measures of development for relevant periods: until 2006, until 2013, and a long-term perspective until 2025. These measures will guarantee the implementation of the long-term goals of the Lithuanian transport system development.

#### DEVELOPMENT OF TRANSPORT INFRASTRUCTURE

22. In the long-term perspective of the Lithuanian transport development, priority is given to the modernisation and development of the transport system. Planning and development of the transport infrastructure are usually considered to be one of the key measures of the transport policy in drafting transport development strategies and programmes both common for the EU and specific for individual EU Member States. In Europe, like in other continents, transport networks are a drive for competitiveness of a common market artery or even markets. Economic growth of any European country or high living standards are hardly imaginable without an efficient transport system and its appropriate infrastructure level that enable making maximum use of the opportunities offered by market economy. Researches reveal that the need for the development of the transport infrastructure in EU Member States is predetermined by two main factors. In the passenger transport, it is predetermined by a huge demand for cars. During the last 30 years the number of cars in EU Member States has increased three times. At present, the number of cars in most old EU Member States has been stabilizing, while in the new EU Member States such a tendency has not been noticed yet. Thus, it is predicted that the number of cars in the enlarged EU will keep growing.

The increase in the demand for the freight transport and its infrastructure is mostly predetermined by changes in the economy and production system of Europe. During the last 20 years, after abolition of borders within the European Community, warehouses have been replaced by promptly renewable stock production systems. However, missing links of the transport infrastructure network limit the potential for developing new markets, and transport congestions on trunk roads reduce economic competitiveness of countries. The study results given in the European Commission White Paper (The White Paper: European Transport Policy for 2010, 2001) reveal that external costs of road traffic congestion alone amount to 0.5% of the EU GDP. Forecasts also show that if necessary measures are not implemented, by 2010 the costs attributable to road traffic congestions may reach EUR 80 billion a year or 1% of the EU GDP, i.e. the amount of annual costs of the old 15 EU Member States for investment into modernisation and development of the infrastructure of all transport modes. Traffic congestions are also a result of delays in completing the Trans-European Transport Network (TEN-T), which was planned and included in outline plans adopted by 1994 Essen European Council and Parliament. In 1996, the Community guidelines for the development of the trans-European network were adopted by Decision No. 1692/96/EC of the European Parliament and the Council. Besides, following the legal grounds related to the TEN-T development, the total costs of modernisation and development of the transport infrastructure of common interest of EU Member States was estimated at EUR 400 billion by 2010. However, until now only slightly more than onefifth of the planned projects has been implemented. Thus, the EU institutions had to review

the plans for the transport infrastructure development; moreover, it was a good occasion for assessing the importance of the major transport infrastructure networks of the new EU Member States for the enlarged EU.

It is evident that modernisation and development of the Lithuanian transport infrastructure networks is a major task not only of Lithuanian institutions but also of those of the EU. Besides, the implementation of the EU projects of common interest is not possible without their planning and coordination of their implementation with neighbouring states. It is essential that decision-makers in the Lithuanian transport sector understand the common EU policy of transport infrastructure development. Implementation of the strategy of modernisation and development of transport infrastructure that serves the national interests of Lithuania would be more efficient and less costly if the strategy is linked with the common EU transport infrastructure development policy.

23. It is necessary to emphasise the two major priorities of the Lithuanian transport infrastructure development in the field of national interests:

23.1. The first priority is development of the trans-European transport network crossing the national borders, which would enable Lithuanian people to reach cultural, tourism and business centres of other EU States conveniently and with lowest time losses. It is the establishment of a modern north-south axis, formed on the basis of European transport corridor I (Tallinn-Riga-Kaunas-Warsaw), that connects the Baltic States with Poland. Realisation of this idea was started in 1996, when the reconstruction and modernisation of the Via Baltica road started. Lithuania's national interest in this project is a construction of a modern branch of this road in the medium term (by 2010), that would connect Vilnius and Warsaw and could satisfy the increasing trade and tourism needs of Lithuania and Poland, as well as other EU States. Another major project related to the expansion of the above-mentioned transport axis and implementation of the project Rail Baltica is construction of the railway line Tallinn-Warsaw via Kaunas. In April 2004, the European Parliament adopted new guidelines for trans-European transport networks. They provide for the development of 30 priority projects of the above-mentioned network. With regard to Lithuania's transport and economic interests, the project *Rail Baltica* is the major one on the list of the 30 priority projects. It took Lithuania much effort to to have the project Rail Baltica recognised as a EU common interest priority project. However, its inclusion into the list of priority projects without drafted project documentation does not give any guarantees that the project will be granted the EU financial aid. Thus, timely and proper drafting of all project documents is an immediate and strategically important task, so that, when the EU financial aid is received, specific railway construction work from the Lithuanian-Polish border could start in 2008.

23.2. The second priority is the modernisation and development of the west-east transport axis and its sustainable integration into trans-European networks of Denmark, Sweden, Germany and other EU States through the motorways of the Baltic Sea that are planned to be developed. Sea motorways formed in the Baltic Sea to the north-south direction would most of all be within the strategic transport and economic interests of Lithuania.

Foreign trade needs of Lithuania force to look for the EU State partners interested in the development of sea motorways to west-east direction. Therefore, Lithuania's interest and task is to initiate international studies aimed at finding out which specific short sea shipping lines could be included into EU common interest trans-European networks and development of which could get the EU financial aid.

#### DEVELOPMENT OF INTERMODAL TRANSPORT

24. In the freight transport, the conceptual framework of the intermodal transport is being implemented by expanding three-type transport nodes: sea and river ports and the new generation logistic centres ("freight villages"), also known as inland ports. Goals and measures of transport node development are defined in Chapter VII, Section "Modernisation and development of water transport" of this Strategy.

25. The new generation logistic centres ("freight villages") may integrate all transport sectors: road, railway, air, and water transport. Integration of different transport modes enables creation of new possibilities to increase freight mobility, to make a more effective use of transport means, to improve the quality of carriage of freight and customs services. Besides, such centres facilitate a more efficient cooperation among companies engaged in different types of business (not necessarily only transport and logistics). According to foreign experience, insurance companies, bank branches, IT centres, transport research, consulting and training companies successfully find their niches in the "freight villages" alongside transport companies and inspecting bodies. Usually, with the help of modern IT systems such "freight villages" are connected to international networks, which makes them more competitive in the international transport service market. The efficiency of "freight villages" does not raise any doubts in Denmark, Italy, Germany and other EU States that have long experience in this field, as modern logistic centres and intermodal technologies enable reduction of the costs of carriage of freight by up to 20-30%.

26. Recommendations to establish modern logistic centres in Lithuania ("freight villages") are also based on the conclusions of the NeLoC study (Networking Logistics Centres in the Baltic Sea Region) within INTERREG IIIB programme. The analysis performed in the course of the above-mentioned study enabled finding out the key reasons for the establishment of the new generation logistic centres ("freight villages") and formation of their network in the countries of the Baltic Sea region:

26.1. to stimulate intermodal transport processes by introducing innovations of transportation technologies and logistics;

26.2. to improve the quality of logistic services;

26.3. to stimulate economy of the region by creating new jobs within modern business.

27. A systematic analysis of logistic centres of the Baltic Sea region has revealed that a success of their activities is mostly predetermined by:

27.1. efficient use of technological capacity of different transport modes;

27.2. efficient use of the current transport infrastructure capacities;

27.3. assurance of high quality transportation services by applying JIT (Just-In-Time) transportation schemes;

27.4. widely used modern information technologies.

28. Modern logistic centres ("freight villages") established at quite large distances from towns, free residential areas of intensive transport flows and create an environment-friendly transport system. Moreover, modern technologies guarantee a door-to-door delivery of goods. Thus, business companies do not need to have their own warehouses or storage facilities in urban areas.

29. In Lithuania, when formulating a policy of logistic centres' development, it is essential to take account of all the above-mentioned factors and success criteria of their development in the states of the Baltic Sea region. Growth of Lithuania's economy creates favourable conditions and the need for the establishment of the new generation logistic centres ("freight villages").

In recent years, of all the new EU Member States, the Baltic States have had the most rapid growth of the GDP. According to the report of the International Monetary Fund at the beginning of 2003, in Lithuania the annual GDP growth in 2003-2007 is expected to be 6%. It should be noted that the GDP growth actually reached 9% in 2003 and 6.7% in 2004. A positive effect of the EU enlargement should also be noted. The EU enlargement offers great opportunities for the economic growth of both the new and the old EU Member States. The EU territory has expanded and the population has increased by one-third. A common market has expanded from 370 million to almost 500 million consumers who strengthen the EU position in the world market.

Taken the above into consideration, no doubts arise concerning the importance of transport modernisation and introduction of innovations in the economy of the enlarged EU. Creation of modern transport networks and good quality of transportation services are the major drive for the market. This highlights another central feature of the new generation logistic centres ("freight villages"): an interaction between modernisation and development of the transport infrastructure and formation of a network of logistic centres. For Lithuania it is of special relevance, as huge investment that is planned (and has already been made) into the Lithuanian transport infrastructure (for the major transport elements to effectively be integrated into trans-European networks) will produce economical benefit only when freight and passenger flows significantly increase.

30. In Lithuania, the transport infrastructure network of the trans-European importance is being formed on the basis of Lithuania's TINA network. The TINA network in Lithuania, which is planned to be modernised and expanded in close cooperation with the neighbouring states and EU institutions by 2015, consists of 1617 km of roads, 1100 km of railways, 278 km of inland waterways, also the airports of Vilnius, Kaunas and Palanga, and Klaipėda Seaport. According to preliminary estimations, the cost of modernisation of TINA networks in Lithuania to raise its technical level to that of the trans-European transport network (TEN-T) will total EUR 2.3 billion. After Lithuania's accession to the EU, transport elements of TINA network have become a part of the trans-European transport network (TEN-T).

31. According to forecasts, freight flows on the main trunk roads of Lithuania by 2020 should become twice as intensive. This necessitates looking for and introduction of innovations in transportation technologies and transportation processes. One of major innovations that will contribute to the growth of cargo flows on future networks is the creation of the new generation logistic centres ("freight villages") and formation of their networks close to the above-mentioned networks.

32. Based on the conclusions of the NeLoC study (Networking Logistics Centres in the Baltic Sea Region) within the INTERREG IIIB programme, creation of four logistic centres of international importance in Lithuania is proposed; those centres could be integrated into the network of the new generation logistic centres ("freight villages") in the Baltic Sea region (Kaunas, Klaipėda, Panevėžys and Vilnius counties). The above-mentioned logistic centres ("freight villages") should be located close to the Lithuanian TEN-T networks.

33. Good perspectives of the Lithuanian intermodal transport development are also forecasted in the results of the INTERMODA study, carried out on the initiative of the European Commission. By its potential, Lithuania is fourth among 15 states of Central and Eastern Europe that keep expanding their intermodal transport to the west-east direction.

# DEVELOPMENT OF INFORMATION TECHNOLOGIES AND INTELLIGENT TRANSPORT SYSTEMS

34. To accelerate the integration of the Lithuanian transport system into the economic community of Europe and of other countries of the world, it is necessary to create the information infrastructure of the Lithuanian transport system that optimally functions both internally and externally.

35. The information infrastructure of the transport system is understood as an integrated aggregate of informatics and communication means, standards, technical regulations and organisational procedures that enables electronic accumulation of major information resources of the transport system, their processing in a coordinated way and, with the help of computer communication means, immediate provision of reliable summarised information of different nature, form and purpose, which is necessary for technological activities of companies, comprehensive accounting, as well as for adoption of decisions of authorities of companies or a transport system. The infrastructure is also necessary for employees of public authorities, government and administration institutions, heads of companies and other legal and natural persons concerned within their statutory competence.

36. Creation of the information infrastructure is understood not as the creation of one huge computerised information system but as the creation of the environment for the functioning of information systems of companies.

37. The purpose of the information infrastructure of the transport system is the efficient and optimal informational maintenance of functioning of the Lithuanian transport system. Such an information infrastructure will allow:

37.1. acceleration and optimisation of the movement of material and information flows through computerisation and informatisation of functioning of its elements that control the above-mentioned movement;

37.2. integration of the Lithuanian transport system into the European transport network;

37.3. integration into the European transport service market.

38. To create information infrastructure of the transport system, it is necessary to take account of general European requirements and multilateral agreements with neighbouring countries. To develop information projects, it is necessary to take account of resolutions of EU institutions' initiative and the European Conference of Ministers of Transport (concerning the use of GALILEO global satellite radio navigation system, EUTELTRACK satellite tracking system, EDIFACT data interchange standard, etc.) New application of telematics is based on satellite navigation systems. The European global satellite navigation system (GALILEO project) will be the most important telematics project. GALILEO project will be applied in all transport branches: navigation, management of traffic and vehicle fleet, surveillance, flow tracking, supervision and rescue systems. GALILEO project will be a major element of future intermodal traffic system control. It could provide a vast space for research and for application of business in the fields of transport telematics and logistics. When developing projects, account should also be taken of getting connected to the transport telematics projects that are being implemented in Europe under the European transport telematics development programme DRIVE.

39. The following measures in the field of information technologies and intelligent transport system development should be mentioned:

39.1. development and introduction of a transport network system of traffic and user information management and control in order to optimise the use of the infrastructure;

39.2. modernisation of railway transport data transmission and traffic management system, assurance of its compatibility with those of neighbouring countries;

39.3. drafting of a programme for transport system management and rearrangement of information technologies and telecommunication structure of individual transport branches, also for development of intelligent transport systems while integrating the Lithuanian transport system into the EU transport information technologies and telecommunication systems;

39.4. development and introduction of a computerised system that enables automatic control of a technical state of road transport, drivers' work and rest schedule, information on freight being transported. The data used in the system, if appropriate, must be communicated to the public institutions, business associations and individuals concerned;

39.5. introduction of an integrated information system that would embrace all activities of the railway sector and assure an effective management of the total railway transport system. Introduction of this information system could be followed by:

39.5.1. rational use of the available system capacity, launching of freight flows across the territory of Lithuania at the lowest cost and in the shortest period of time;

39.5.2. rational and stable planning of passenger transport and use of the most favourable means (passenger diesel and electric trains, railcars);

39.5.3. rational planning and implementation of maintenance and repairs of mobile and stationary objects of the railway transport system: this would result not only in a lower number of unreasonably stored spare parts and materials but also in easier determination of their optimal structure and reduction of non-productive costs;

39.5.4. its connection with information technologies systems of other transport modes and its organic integration into the information system of all transport sector of Lithuania;

39.6. creation of information infrastructures of railways, roads, water and air transport;

39.7. drafting of necessary legal, methodological and organisational measures for coordination of activities related to the creation of the information infrastructure;

39.8. continuous introduction of intelligent traffic safety systems in major towns;

39.9. creation of an efficient transport registration and tracking system and a mobile portal of transport related public information on the grounds of mobile communications.

# TRANSPORT DEVELOPMENT AND ENVIRONMENTAL PROTECTION

40. When creating an economically efficient transport system, it is necessary to coordinate the development of all transport modes, give the priority to a more environmentally friendly transport, increase the efficiency of energy transport sector, consume more alternative fuels and fewer fuels that cause environmental pollution, and reduce environmental pollution.

41. In the field of environmental protection, the state should control and regulate the environmental effect and urge economic entities and public authorities to focus on the prevention of a negative impact on the environment and human health, rather than struggling against its consequences. One of the key goals of the state is a successive implementation of EU directives and national laws that regulate an effect on the environment and human health, and a stricter responsibility of producers for environmental pollution.

42. Local renewable energy resources must satisfy up to 15% of Lithuania's fuel needs. It is required to create a necessary legal basis and to provide full support to the development of energy agriculture and processing industry. It is necessary to make it possible to satisfy the demand for transport fuel to about the same amount (15%) by producing diesel fuel and bioethanol. According to foreign experience, wider use of alternative energy sources (biofuel, wind and water energy, etc.) is mostly inhibited by lobbying activities of oil producers and trading companies. The state should address legal and economic issues of production and realisation of alternative power.

43. Medium-term (until 2013) goals should help to better arrange and control transport traffic with a view to reducing air pollution and noise and achieve that air pollution and noise in towns do not exceed the allowed limits.

44. Short-term goals are the following: to create economic and legal conditions for the development of low-polluting and safer transport, as well as to use low-polluting (liquefied and natural gas, low sulphur heavy fuel oil) and alternative (biodiesel and bioethanol) fuels.

# TRAFFIC SAFETY IMPROVEMENT IN ROAD TRANSPORT

45. To ensure traffic safety on the roads of the country, it is necessary to adopt different measures that would enable the achievement of goals set when implementing complex or special programmes.

46. Since the scope of traffic safety factors is complex and multidimensional, traffic safety issues should be solved at all levels of the state (at the Seimas of the Republic of Lithuania, the Government of the Republic of Lithuania, municipal authorities) and by close cooperation of economic entities and traffic actors.

47. The key role in this field is played by the executive power, starting with formulation and elaboration of legislation, accumulation of material resources for the implementation of the foreseen measures and ending with the imposition of relevant sanctions on the public.

48. To improve the system of traffic safety, Lithuania should follow the Verona Declaration signed at Verona (Italy) on 24 October 2003 by EU Transport Ministers, which sets one of the key goals to halve the number of road accident victims by 2010. To achieve this goal, it is necessary:

48.1. to raise the issues of traffic safety as social ones emphasizing the impact on human health and emerging costs;

48.2. to create a future transport system that is safe and acceptable for the public;

48.3. to link different programmes (transport policies) on the basis of general principles: accessibility, mobility, traffic safety and environmental issues;

48.4. to adopt a long-term national programme for traffic safety improvement and, as far as possible, to draft relevant regional and local programmes;

48.5. to continuously introduce intelligent traffic safety systems in the main cities;

48.6. to set clear and specific responsibility and competence limits of institutions acting in the field of traffic safety assurance, and to foresee actions of coordination of their activities at national, regional and local levels;

48.7. to analyse a possibility (to perform a feasibility study) of creation of an independent subdivision, which would monitor and assess results of traffic safety improvement and compare them with the results laid down in the plans of traffic safety improvement; to

foresee traffic improvement measures that would be introduced on the roads of municipal and national importance;

48.8. to allocate part of funds collected for violations of traffic rules, for traffic safety improvement.

# PROTECTION OF TRANSPORT INFRASTRUCTURE INSTALLATIONS, FREIGHT AND PASSENGERS

49. To implement the EU legislation, it is necessary to ensure continuous protection of transport infrastructure installations, freight and citizens in all transport sectors, to formulate a clear and comprehensive policy that provides an efficient protection of transport installations, freight and citizens, and to create a necessary control system and to ensure that on-the-spot checks are arranged.

# STRENGTHENING ADMINISTRATIVE CAPACITIES

50. In the field of strengthening administrative capacities, the following measures should be noted:

50.1. Further elaboration of legal basis that regulates the transport sector:

50.1.1. The key legal acts that regulate the transport sector are substantially harmonised with EU legal acts. Elaborating legal basis of the transport sector, it is essential to timely respond to new needs. Taking into consideration the fact that the transport policy of the European Commission (The White Paper: European Transport Policy for 2010 (2001)) and the present Strategy pay much attention to sustainability of the development of individual transport modes and their effective interoperability through the development of intermodal transportation, a need for drafting a legal basis favourable for the development of modern technologies and processes of different transport modes arises. To promote the introduction of modern intermodal transport technologies, it is necessary to legalise state aid by co-financing innovations and researches in this field. Moreover, elaborating the legal basis that regulates the transport sector, proper attention should be paid to the drafting of legal acts that promote the application of the principle of private-public partnership in financing the development of transport infrastructure.

50.1.2. Making use of the good practice of European states (for example, the experience of Scandinavian countries), its is necessary to create a transparent legal basis, which is better than the present one, and develop public passenger transport, wider apply the elements of market economy, attract private capital and improve the quality of services. First of all, it is necessary to ensure a free and transparent market access for operators who are able of providing very high quality services and whose standing and financial potential meet the set requirements.

50.2. Further strengthening of institutional capacity shall cover the following:

50.2.1. The department within the Ministry of Transport and Communications that regulates the railway transport sector should be strengthened in order to guarantee strategic planning and development of this vital transport mode.

50.2.2. Responsibilities for the planning and coordination of transport programmes of departments of the Ministry of Transport and Communications, the Ministry of the Interior, the Ministry of Finance and of appropriate structural units of municipal administrations should be tightened and the related capacities should be strengthened.

#### VII. MAIN OBJECTIVES AND MEASURES OF INDIVIDUAL TRANSPORT SECTORS

#### MODERNIZATION AND DEVELOPMENT OF ROAD TRANSPORT

51. The main objectives of modernization and development of road transport shall be the following:

51.1. to integrate the network of the Lithuanian road transport into the EU road transport system in technical-technological and legal regulation aspects, making use of the favourable geographical situation of the country and increasing potential of Lithuanian road transport enterprises and their role in the international market of road transport services;

51.2. to integrate the network of national roads into the EU transport system ensuring interregional connection with the trans-European network of roads, and into a network of local roads forming a complete infrastructure that is necessary for regional development and completion of the network of roads with missing links in order to avoid bottlenecks;

51.3. to aim at ensuring that technical parameters of the Lithuanian road network meet a rational distribution of production forces and the approved development of certain branches of the economy in individual regions, as well as reduce transportation costs and enable free movement of passenger and freight transport within the country;

51.4. to aim at making national and urban road transport systems complex and integrated. This would facilitate a rational and efficient use of funds for the infrastructure development: solution of sub-urban and urban communication problems, and development of transit transport corridors or bypasses;

51.5. to motivate people of the country in any possible way to use public transport so that a further growth of flows of cars and traffic volumes on streets and roads is prevented, especially in major towns;

51.6. to raise the level of the Lithuanian urban public transport services (accessibility, trip duration, quality, etc.) to the level of public transport services quality in the developed EU Member States;

51.7. to improve the network of routes of public transport so that it satisfies the needs of passengers with regard to services provided within the territory;

51.8. to harmonize a financing mechanism of the route passenger transport system of towns and districts so that it is efficient under market economy conditions and stimulates competition of passenger transport enterprises in the provision of passenger transport services;

51.9. to adhere to social principles in the formation of demand for and tariffs of public transport services;

51.10. to implement and develop the interoperability of different transport modes for passenger transport;

51.11. to expand international routes and make a more effective use of opportunities offered by TEN-T networks that undergo modernisation;

51.12. to implement a legal basis of road transport that is harmonised with the EU requirements, technical standards and technical regulations of businesses;

51.13. to create an environment-friendly road transport system, give priority to transport that has a lower negative impact on the environment, increase the energy-efficiency of the road transport sector, use more alternative and less-polluting fuels, seeking to reduce environmental pollution;

51.14. to make passenger communication conditions ecological, motivate people to choose alternative communication ways, modernise and improve infrastructure for non-motor transport, create systems of cycle paths and footpaths in towns and settlements that would be separated from motor transport traffic;

51.15. to form the system for communication of the disabled: to prepare the necessary infrastructure, arrange traffic of buses adjusted for the disabled, adapt crossings and sidewalks of urban streets, approaches to attraction points, public transport stops and car parking lots for their needs;

51.16. to form a road traffic safety system, strengthen safety prevention of traffic actors, improve traffic regulation conditions, modernise road infrastructure (improve its geometry and surface), and tighten control of technical condition of vehicles;

51.17. by priority and feasibility of implementation, measures proposed for the implementation of the foreseen strategic goals and objectives are classified into short-term (until 2006), medium-term (2007-2013) and long-term (until 2025) measures.

#### Measures planned to be implemented by 2006

52. Among the measures planned to be implemented by 2006, the top priority is given to the modernisation and development of the road infrastructure so that the major transport highways and hubs of Lithuania comply with the quality and technical parameters applicable to trans-European networks, and that projects of international importance are drafted and submitted to the European Commission applying for financing from the Cohesion Fund:

52.1. while developing transport corridor IXB (coincident with TEN-T), to modernise the road Vilnius-Kaunas-Klaipėda: to widen and strengthen the road surface, build crossings of different levels, repair bridges and overpasses, introduce measures of traffic safety and environmental protection;

52.2. while developing transport corridor IXD (coincident with TEN-T), to reconstruct the road Marijampolė-Kybartai: to widen the road surface to 9 meters of width and implement environmental measures;

52.3. while developing the road *Via Baltica*, to strengthen and widen the road surface, repair bridges and overpasses, and implement measures of traffic safety and environmental protection;

52.4. while developing transport corridor IA (coincident with TEN-T), to strengthen the surface of the road Ryga-Šiauliai-Tauragė-Kaliningrad;

52.5. while developing the construction of bypasses, crossings of different levels and the creation of a roadside infrastructure system in the highways of E level, to develop individual sections of the trans-European roads E85, E272, E28: to strengthen and widen the road surface, implement measures of traffic safety and environmental protection, repair and reconstruct the existing bridges and overpasses;

52.6. while continuing the reconstruction of trunk roads, improving the technical parameters of national and regional roads to the standards harmonized on the national and international level, implementing traffic safety and environmental measures, and reducing the negative effects of motor transport emissions and noise, to draft and implement projects funded from the EU support funds and the Road Maintenance and Development Programme:

52.6.1. to further implement the Programme of Paving of Lithuanian Roads (Gravel Roads);

52.6.2. to integrate the creation of non-motorized transport infrastructure into the projects of road transport infrastructure development that are being drafted. For the purposes of traffic

safety and improvement of environmental protection, to build about 100 kilometres of cycle paths and footpaths, reconstruct 8 crossings, build fences, and implement the requirements of relevant EU legislation;

52.6.3. aiming at a renewal of the surface of national and regional roads, to widen 125 kilometre long road sections and strengthen 139 kilometre long road sections;

52.6.4. to reconstruct national and regional roads;

52.7. aiming at a better integration of commercial transport into the market of land carriers, strengthening of positions in the market, and improvement of the quality of domestic and international services, it is necessary, in the short run, to implement the following priority measures:

52.7.1. to complete the implementation of action plan measures of transitional legislation (introduction of tachographs by 1 January 2006 and ensuring financial capability by 1 January 2007);

52.7.2. to improve the system of collection of heavy freight transport levies (levies of infrastructure users);

52.7.3. to harmonize the main legal acts and technical regulations in the field of transport with the EU legal system and the standards applied in the transport system;

52.8. to develop the market of public passenger transport in accordance with the model of regulated competition and achieve a better balance of the demand and supply in this market. To represent interests of population, municipalities should, taking account of budget capacities of the town or district, form and constantly renew networks of route transport, establish the service volume and quality level to meet the changing needs of the country's population for communications:

52.8.1. as the final stage of reorganization, administrations of municipalities should create and strengthen capacities of separate structural units regulating public passenger transport to ensure uninterrupted passenger transport services to the public, to create the road infrastructure necessary for meeting social, economic and recreational needs;

52.8.2. to improve the formation of the public transport service system: to create equal conditions for licensed Lithuanian carriers to enter the passenger transport market and increase the competitiveness of transport companies;

52.8.3. to ensure financing of scheduled transport services, and create an effective mechanism of loss coverage and subsidisation of activities;

52.8.4. to carry out monitoring and quality control of scheduled transport services;

52.8.5. to introduce a system of professional development for passenger carriers wishing to operate in international and local markets;

52.8.6. to harmonize public transport services with the needs of users of private cars, and adjust scheduled transport for the disabled;

52.8.7. to raise public awareness about the importance of traffic safety, to educate traffic actors on traffic safety and first aid, tighten the requirements for technical condition of vehicles and strengthen traffic control, and improve traffic conditions on roads;

52.8.8. to carry out traffic safety monitoring on the national level, develop a database, and implement special traffic safety programmes.

53. Among the measures to be implemented by 2013, the priority shall be given to the modernization and development of roads, full formation of a network of roads of all levels, building of missing connections, and modernization of traffic organisation technologies:

53.1. as part of a further development of the network of E level highways, construction of bypasses and crossings of different levels, creation of the roadside infrastructure system, to develop separate sections of trans-European roads, strengthen and widen road surface, and implement traffic safety and environmental measures;

53.2. to connect Lithuanian road networks, modernized according to European standards, with those of Poland and via Poland with the trans-European network system of other EU Member States in order to reach major towns and tourism and cultural centres of EU Member States;

53.3. to improve connections with the TEN-T network;

53.4. to raise technical parameters of national and regional roads to the standards harmonized at the national and international levels, and implement measures of traffic safety and environmental protection;

53.5. to increase the number of paved gravel roads and reduce the negative environmental effects of transport;

53.6. to integrate the network of roads of regional importance into the network of highways of international importance;

53.7. to develop the network of cycle paths and footpaths in towns, settlements and non-urban roads;

53.8. to increase the traffic capacity of streets, continue building of bypasses of towns, reconstruct and construct new infrastructure objects (bridges, overpasses, crossing of different levels), and integrate them into the existing networks of streets;

53.9. to integrate urban bypasses and non-urban roads into the formed networks of town streets, connect them with new entry highways, crossings of different levels and missing bridges over rivers;

53.10. to introduce road transport information systems which provide information about traffic conditions, traffic malfunctions, applied traffic management measures, parking possibilities, public transport services and roadside infrastructure;

53.11. to introduce, in major Lithuanian towns, modern systems of coordinated automatic traffic control responsive to traffic changes;

53.12. to ensure harmonized reconstruction or development of transport infrastructure objects in towns and suburbs in accordance with the requirements of use and management of planned territories, and apply measures to mitigate the negative environmental effects of transport;

53.13. to increase the build-up in towns, new neighbourhoods and settlements, design integrated public centres, which would generate passenger flows adequate to be served by public transport;

53.14. to adjust urban and long-distance public transport as well as it stations (terminals) for carriage and storage of passenger bicycles (not dismantled), baby prams and wheelchairs;

53.15. to connect, by main cycle paths, the most densely populated town areas with town centres, work and study centres, schools, universities, large objects of trade and leisure, large companies and services;

53.16. medium-term priorities of freight transport development shall cover the development of multi-modal transport, integration into the EU market, international cooperation issues in the Baltic Sea Region and development of transit services:

53.16.1. to gradually introduce environmental measures in motor transport: to stimulate transition to alternative, less-polluting fuel; to tighten requirements on emissions and noise level;

53.16.2. to draft a conceptual framework of consolidation of internal customs posts on the basis of the analysis of freight flows and tendencies of their change;

53.16.3. to reorganize border control posts with Russia and Belarus in accordance with Schengen requirements;

53.16.4. to create a system of state aid to the development and promotion of combined transport (in accordance with relevant EU directives, in the beginning of the reference period it is necessary to draft regulations that promote private initiatives and allow attraction of investments for the establishment of combined and intermodal transport logistic centres, which would be important in the future development of transit carriage);

53.16.5. to make preparations for the creation of a primary training and periodic professional development system for professional drivers; to implement the system in accordance with EU requirements;

53.16.6. to tighten the requirements for the technical condition of motor vehicles in relation to reduction of motor vehicle emissions and noise, and implement measures for the reduction of accident rate;

53.16.7. to improve a professional development system for carriers (of freight and passengers);

53.17. medium-term priorities of passenger transport shall cover the balancing of public transport services and usage of cars, changing of the modal distribution in urban transport in accordance with the national territorial development principles and EU directives by giving priority to public transport, pedestrians and cyclists:

53.17.1. to modernize vehicle fleets of passenger transport companies, apply clean technologies to passenger transport, introduce modern information systems of scheduled transport management in towns;

53.17.2. to integrate external and internal services of passenger transport – to promote a "single ticket" system, connect terminals of external passenger transport (airports, seaports, river ports and railway stations) with internal communications system, ensure good communications in towns and settlements;

53.17.3. to reorganise systems of tariffs and tickets so that they comply with social and economic conditions and possibilities of population of Lithuanian towns, ensure appropriate income, encourage more active usage of public transport;

53.17.4. to introduce new generation scheduled transport systems, promote a transition to electricity-consuming and less-polluting transport;

53.17.5. to harmonize usage of cars with the operation of the public transport system, build parking areas in the vicinity of scheduled transport terminals, restrict and prohibit traffic of cars in old towns, central parts of towns and centres of densely built-up residential areas, to build, where appropriate, walking and non-motor transport zones;

53.17.6. to promote the usage of clean fuel (using a substitute with the contents of clean fuel of up to 20%), use electromobiles and hybrid cars for urban travelling, in particular in the

field of urban services, reduce traffic jams and air pollution in intensively visited places in towns and settlements;

53.17.7. to improve the system of professional development of employees working in the field of passenger services and service coordination;

53.17.8. to implement information technologies so that the use of computers and the Internet saves trips by public transport or private cars.

# Measures planned to be implemented by 2025

54. Long-term priorities of infrastructure development shall cover the application of new transport technologies and modernization of transport activities to create good traffic conditions for domestic and foreign users. It is foreseen to implement the following measures by 2025:

54.1. to ensure stable and safe traffic conditions on all trunk roads;

54.2. to complete the paving of national and regional roads used by public transport, and increase the share of paved roads in the national road network to 80%;

54.3. to modernize the network of trunk roads so that it complies with the EU requirements;

54.4. to improve measures of traffic safety and environmental protection of the whole road network;

54.5. to build necessary footpaths and cycle paths in towns and settlements, integrate them into the general transport system by building cycle parking areas in the vicinity of public transport terminals;

54.6. it is foreseen to modernize freight transport activities by introducing intelligent technologies, creating and introducing a computerized system facilitating the use of electronic equipment for infrastructure toll collection and the control of transport condition as well as of drivers' work and rest regime;

54.7. long-term priorities of passenger transport development are given to the introduction of new technologies in urban transport, encouragement of the public to use public transport services, and the reduction for people of the number of inevitable trips by replacing a part of trips with communication possibilities offered by information technologies:

54.7.1. to create a system of joint (intermodal) services, improve interoperability of different transport modes used for passenger transport, build joint service terminals of different transport modes, introduce a conceptual framework of a "single e-ticket" for passengers' convenience;

54.7.2. to harmonize a ticket distribution system with the advance booking system of the whole continent and to get integrated into it;

54.7.3. to implement reorganized tariff and ticket distribution systems that would ensure the protection of necessary income and promote a more active use of public transport;

54.7.4. to develop programmes of tourism by land roads in the Baltic Sea Region and the continent of Europe;

54.7.5. to introduce more efficient information systems of urban passenger transport management and traffic control systems;

54.7.6. to introduce new urban transport technologies, construct more effective and modern public transport routes, modernize the existing vehicle fleet;

54.7.7. to build a safe and convenient infrastructure of non-motor transport;

54.7.8. to improve transport programmes of servicing the disabled, introduce new technologies, integrate these services into the overall transport system;

54.7.9. to use alternative fuels, introduce environment-friendly technologies and adopt transport planning solutions that are least harmful to the environment.

#### MODERNIZATION AND DEVELOPMENT OF RAILWAY TRANSPORT

55. The main objectives of a long-term railway transport development:

55.1. to create a legal framework and strengthen a market regulating authority to effectively participate in the EU railway transport market;

55.2. to fully restructure the railway sector;

55.3. to create a strong and effective system of traffic safety control;

55.4. to create an integral system of railway environmental protection covering all potential sources of pollution (air, water, soil);

55.5. to modernize the infrastructure that allows a successful integration into the EU transport system and modernize it in accordance with AGC and AGTC agreements and guidelines of the European Council and of the Parliament for the development of the trans-European transport network;

55.6. to implement the Lithuanian railway transport sector reform according to EU legislation in order to increase the competitiveness of the national railways in the European transport services market;

55.7. to acquire passenger and freight rolling stock complying with the parameters of the modernized infrastructure;

55.8. to ensure railway transport safety taking account of the fact that the increasing demand for international services in terms of network and system intercompatibility and the opening of the market call for the reassessment of the problems of railway safety. The compatibility of systems should ensure the same (or even higher) level of safety as the one already achieved in every EU state. Therefore, the European Council Directive 96/48/EC on the Interoperability of the Trans-European High-Speed Rail System and Directive 2001/16/EC of the European Parliament and of the Council on the Interoperability of the Trans-European Conventional Rail System mentions safety as one of the most necessary requirements for operation of the trans-European rail system. This encourages to take actions on the technical and administrative levels:

55.8.1. it is necessary to define standards of each component (track, rolling stock, signalling system, rules of procedure, etc.) of a rail system on the technical level;

55.8.2. it is necessary to establish duties and responsibilities of all workers in the system, from infrastructure managers to representatives of transport and communications institutions (including representatives of railway companies and public authorities), on the administrative level. This shall be in compliance with the traffic safety programme of the public limited liability company AB *Lietuvos Geležinkeliai*, which is to be drafted and approved by Order of the Minister of Transport and Communications already in 2005.

56. In order to successfully integrate into the trans-European railway network, increase speed of trains and traffic safety, implement EU requirements on environmental pollution and ensure effective transportation links between the West and the East by providing passenger and freight transport services, it is necessary to implement the below-listed measures by 2025.

#### Measures planned to be implemented by 2006

57. It is foreseen to implement the following measures by 2006:

57.1. to finish the harmonisation of Lithuania's technical regulations on construction with international and EU standards;

57.2. to start modernization of the railway line Vilnius-Kaunas so that passenger trains could run at the speed of 160 km/h, and freight trains at 120 km/h;

57.3. to launch a direct passenger train with automatically changing width of axes on the route Vilnius-Warsaw;

57.4. to complete the building of optical fibre digital lines on the European transport corridors IXB and IXD (coincident with the trans-European networks) and modernization of automatic telephone connection, and to connect these lines with the communications networks of neighbouring countries;

57.5. to draft technical documentation for the electrification of the railway line Kena-Kybartai;

57.6. to solve the issues concerning specialist training and professional development by using all the scientific and production potential of the Lithuanian railway transport. This would lead to the enhancement of qualification of railway specialists and saving of funds;

57.7. to start modernization works of marshalling yards on the trans-European networks on European transport corridor IX (Vaidotai, Radviliškis);

57.8. to start the reconstruction of Kaunas railway tunnel;

57.9. to modernize hot axle box detectors (HABD);

57.10. to start building two-level crossings on the line Vilnius-Kaunas (European transport corridor IX – TEN-T);

57.11. to start upgrading radio communications;

57.12. to start the implementation of the passenger rolling stock modernization programme;

57.13. to modernize the interoperability of the port and railway transport (the development of Klaipėda railway hub: stage I – runways development in Pauostis);

57.14. to start the introduction of measures aimed at increasing the capacity of railway lines and stations (building of secondary tracks, extension of station tracks for trains with the mass of 6000 tons, and modernization of signalling equipment);

57.15. to reconstruct the central underpass of Vilnius Railway Station and its awning – Stage I;

57.16. to rebuild and modernize the infrastructure of the line Kužiai-Mažeikiai – Stage I;

57.17. to rebuild and modernize the infrastructure of the line Vilnius-Stasylos – Stage I;

57.18. to draft an environmental programme.

#### Measures planned to be implemented by 2013

58. It is foreseen to implement the following measures by 2013:

58.1. to finish the reorganization of the public limited liability company AB *Lietuvos Geležinkeliai*;

58.2. to complete the modernization of the railway line Vilnius-Kaunas;

58.3. to rebuild and modernize the infrastructure of the line Klaipėda-Pagėgiai;

58.4. to rebuild and modernize the infrastructure of the line Obeliai-Radviliškis;

58.5. to modernize the railway lines Kaišiadorys-Klaipėda and Kaunas-Kybartai so that passenger trains could run at the speed of 160 km/h, and freight trains at 120 km/h;

58.6. to draft the strategy of railway rolling stock renovation and review it according to the forecasted flow of freight and passengers;

58.7. to build optical fibre digital lines in the remaining main railways and complete the modernization of communications;

58.8. to electrify the lines of the Trans-European transport network (TEN-T) corridor IX Kena-Vilnius and Kaunas-Kybartai;

58.9. to reconstruct the central underpass of Vilnius Railway Station and its awning – Stage II;

58.10. to complete the upgrading of marshalling yards (of Trans-European transport network (TEN-T) corridor IX);

58.11. to complete reconstruction of Kaunas railway tunnel;

58.12. to further implement measures aimed at increasing the capacity of railway lines and stations (building of secondary tracks, extension of station tracks for trains with the mass of 6000 tons, and modernization of signalling equipment);

58.13. to complete modernization works of radio communications;

58.14. to modernize signalling and electricity supply on the sections Kena-Kybartai and Radviliškis-Šiauliai (European transport corridor IX TEN-T);

58.15. to build the railway line of European standards extending from the Lithuanian-Polish state border to Kaunas (in 2010), and the intermodal transport hub (*Rail Baltica* project);

58.16. to complete building of two-level crossing in the line Vilnius-Kaunas;

58.17. to draw up the plan of railway rolling stock stationing with the necessary maintenance and repair bases as well as the equipment;

58.18. to prepare a project for the construction of the railway line *Rail Baltica* extending from Kaunas to the Lithuanian-Latvian state border, meeting the European standards, and start the construction works;

58.19. to rebuild and modernize the infrastructure of the line Kužiai-Mažeikiai – Stage II;

58.20. to rebuild and modernize the infrastructure of the line Vilnius-Stasylos – Stage II;

58.21. to rebuild and modernize the infrastructure of the line Klaipėda-Pagėgiai – Stage II;

58.22. to pursue the environmental programme.

#### Measures planned to be implemented by 2025

59. It is foreseen to implement the following measures by 2025:

59.1. to build the railway line of European standards from Kaunas to the Lithuanian-Latvian state border (in 2014);

59.2. to electrify the railway line Kaišiadorys-Klaipėda (European transport corridor IX TEN-T), if the project is economically feasible;

59.3. to introduce new technologies for carriage of freight by railway transport.

#### MODERNIZATION AND DEVELOPMENT OF WATER TRANSPORT

60. The main objectives of modernization and development of water transport:

60.1. to increase the capacity of carriage of both Lithuanian and transit passengers and freight by water transport, the competitiveness of Klaipėda State Seaport and Būtingė Terminal and the capacity of inland waterway transport in the Baltic Sea region;

60.2. to develop short sea shipping and sea motorways, as well as inland waterways, multimodal and intermodal transport, build lines connecting sea and inland waterways ports of Klaipėda with other European ports, better use reserve territories of Klaipėda port for the needs of shipping, promote sea and inland waterways transport so that Lithuania contributes to the building of trans-European shipping network and the network of inland (category E) waterways of international importance (AGN).

#### Measures planned to be implemented by 2006

61. It is foreseen to implement the following measures by 2006:

61.1. to further reconstruct the existing quays and build new ones (about 1000 metres, including 50-70 metres of the Curonian Lagoon water territory, with the depth of 12,5 metres) that would be appropriate for constructing a modern terminal of Ro-Ro-Lo-Lo integrated ships and container ships of third or fourth generation;

61.2. to draft an investment programme of Klaipėda Seaport for 2006-2010 and start its implementation;

61.3. to develop a legal framework for the reconstruction of Šventoji State Seaport;

61.4. to draft an assessment study of the railway bypass of the northern part of Klaipėda Seaport to the southern part;

61.5. to prepare an infrastructure and suprastructure of Klaipėda Seaport for the servicing of ships of larger tonnage in different parts of the port;

61.6. to construct the terminal for passenger and freight ferries at Klaipėda Seaport;

61.7. to prepare the territory of Klaipėda Seaport for the transhipment and logistic activities related to the sea transport;

61.8. to draft new schemes of logistic centres by concentrating all components of the logistics chain (freight shippers, ship owners, road and railway operators as well as other operators) at one centre;

61.9. to draft projects of sea motorways (by adjusting them to the shipping lines among the port of Klaipėda and the ports of Germany, Sweden, Denmark and other countries);

61.10. to strengthen the legal framework related to water transport in order to renew and develop sea and inland waterways fleets;

61.11. to strengthen monitoring and control of maritime traffic;

61.12. to draft a feasibility study on Lithuanian inland waterways development by integrating them into the European inland waterways system;

61.13. to draw up the Development Programme of Inland Waterways Transport of the Republic of Lithuania by the year 2025;

61.14. to assess the condition of inland waterways ports and quays and submit proposals on their renovation.

#### Measures planned to be implemented by 2013

62. It is foreseen to implement the following measures by 2013:

62.1. to adjust the existing parts of Klaipėda Seaport for the reception of ships of larger tonnage and of new generation as well as the introduction of modern technologies;

62.2. to draw up a feasibility study on the deepening of the ship canal and water area of Klaipėda Seaport to the maximum permissible depth;

62.3. to implement a new maritime safety management and information system (black boxes of ships, GALILEO Programme);

62.4. to implement the regulations of the United Nations Organisation (hereinafter – UNO) and the EU on the phasing out of single hull tankers;

62.5. under a favourable market conditions to start building the deepwater Klaipėda Seaport with the final foreseen capacity of up to 40 million tons and the depth by quays of up to 17 metres;

62.6. to introduce a common information system of seaports of the Republic of Lithuania (oil terminal of Klaipėda State Seaport and Būtingė Oil Terminal);

62.7. to reconstruct Šventoji State Seaport (by developing the infrastructure);

62.8. to expand the sea fleet in order to attract ship owners for registration of ships in Lithuania;

62.9. to renew passenger transport by inland waterways between Kaunas and Nida, and reconstruct the quays of Kaunas and Nida;

62.10. to ensure the operation of the section of inland waterways of international importance (AGN) on the Nemunas River to Kaunas, which complies with the IV class standards, and reconstruct the existing inland waterways ports: to increase the guarantee depth in the section Jurbarkas-Kaunas, reconstruct the existing freight quay in the city of Kaunas and construct a new one;

62.11. to perform designing works, build an inland navigable waterway on the Neris River from Kaunas to Jonava and start using it;

62.12. to establish a tourist route Kaliningrad–Klaipėda–coastline of the Baltic Sea: to dredge and mark the inland fairway Kaliningrad–Klaipėda through the Curonian Lagoon (having adjusted border and customs procedures with relevant institutions of the Russian Federation);

62.13. to create a system of river information services and start using it in Lithuania as well as integrate it into the harmonised European RIS (River Information Services) system.

#### Measures planned to be implemented by 2025

63. It is foreseen to implement the following measures by 2025:

63.1. to attract transcontinental container shipping lines to Klaipėda Seaport;

63.2. to further implement measures helping Klaipėda Seaport to service ships of new generation;

63.3. to draft a scientific study on technical and economic issues of the construction of a navigation dike of Kaunas hydro-power plant, and, if appropriate, build the navigation dike of Kaunas hydro-power plant;

63.4. to develop new routes of inland waterways.

#### MODERNIZATION AND DEVELOPMENT OF AIR TRANSPORT

64. The main objectives of the modernization and development of air transport:

64.1. to create an air transport system that is of good quality, integrated and adjusted for transit;

64.2. to develop a legal framework that ensures flight safety and regulates aviation activities and that is harmonized with legal acts, standards and recommended practices of the International Civil Aviation Organization (ICAO), the European Civil Aviation Conference (ECAC), the European Joint Aviation Authorities (JAA), the European Aviation Safety Agency (EASA), the International Air Transport Association (IATA), the Airports Council International (ACI), and the European Organization for the Safety of Air Navigation (EUROCONTROL).

64.3. to join the European Organization for the Safety of Air Navigation and integrate air navigation service into the common EU system of air navigation service provision;

64.4. to develop a harmonized system of training and professional development of aviation specialists.

#### Measures planned to be implemented by 2006

65. For the convenience of passengers and carriers, the Lithuanian air transport system has to be linked with the system and services of road, railway and water transport, technologies of a "single ticket" and multimodal carriage of freight in order to benefit from the geographical location of Lithuania, creation of Vilnius - Kaunas Dipole, attraction of Klaipėda industry, transport region and Baltic seacoast recreational zone, as well as of the modernization and development of the TEN-T network. Favourable conditions for air tourism must be created. To this end, it is necessary to draft programmes of Lithuanian air transport infrastructure development, general aviation development and interoperability of different transport modes, solve the problems of reduction of negative impact of aviation on the environment, development of flight safety and aviation security systems, creation of the training and professional development Schengen requirements, and prepare for the introduction of technical means of new generation for carriage of freight by air.

66. It is foreseen to implement the following measures by 2006:

66.1. to draft and implement an integrated programme of the Lithuanian air transport system infrastructure development (development of airports within the infrastructure of Vilnius - Kaunas dipole, their connections with the logistic centres of the dipole; development of Palanga airport; improvement of aircraft maintenance and passenger service infrastructure in the international airports of Lithuania);

66.2. to draft a programme for broader integration of civil aviation into the national transport system;

66.3. to draft a conceptual framework for legitimating the private-public partnership in the process of air transport infrastructure development;

66.4. to draft a programme for the use of state and municipal airports;

66.5. to seek that aviation companies implement the Joint Aviation Requirements (JAR) and integrate into the EU and NATO programmes of aviation research and production;

66.6. to join the European Organization for the Safety of Air Navigation;

66.7. to introduce the SES concept (to seek that the public enterprise *Oro Navigacija* acquires a recognized certificate for the provision of services in the Single European Sky, implement ATMAS project, and implement the conceptual framework of functional air space blocks);

66.8. to privatise the public limited liability company AB *Lietuvos Avialinijos* (Lithuanian Airlines);

66.9. to complete the formation of the system of training and professional development of aviation specialists;

66.10. to replace the outdated runway lighting system in Kaunas airport with a new high intensity lighting system;

66.11. to ensure passenger and freight transit services in the international airports;

66.12. to replace outdated landing systems ILS in the airports of Palanga and Vilnius with the new ones;

66.13. to modernize the equipment of the Vilnius regional air traffic control centre;

66.14. to reconstruct the runway of Palanga airport;

66.15. to modernize the perimeter protection systems in the airports of Vilnius, Kaunas and Palanga;

66.16. as part of implementing the environmental requirements and the programmes for the reduction of the noise impact caused by aircraft on human health, to mount the noise measuring system in the airport of Kaunas and specify the boundaries of the sanitary zones of Vilnius, Kaunas and Palanga airports.

#### Measures planned to be implemented by 2013

67. Taking account of the new technologies of passenger transport and carriage of freight, as well as the prospects of aircraft fleet, navigation systems and development of procedures, the priority measures foreseen to be implemented by 2013 cover a further development of air transport system infrastructure, environmental impact assessment and solving other environmental protection problems:

67.1. to draft the strategy of introduction of air traffic management concept CNS/ATM and the global navigation satellite system (GNSS);

67.2. after the analysis of the data of the noise monitoring system, to assess the negative impact of aircraft noise on the environment, and draft the plan for the reduction of negative effects of aircraft noise on the environment;

67.3. to modernize the infrastructure of airports: to adjust it to intermodal transport technologies;

67.4. to adjust the international airport terminals to Schengen requirements, build (expand) passenger terminals in the airports of Vilnius and Palanga before accession to the Schengen Agreement;

67.5. to draw up a programme for the integration of civil aviation into the "single ticket" system of passenger transport;

67.6. to modernize the system of training and professional development of aviation specialists;

67.7. to encourage the development of general aviation together with the development of the internal services, air tourism and leisure industry.

#### Measures planned to be implemented by 2025

68. Taking into account the expected implementation of new control systems of air and space vehicles and satellite flights, further integration of different transport modes with a view to ensuring a safe, fast and convenient integrated servicing of passengers and freight, the following measures are to be implemented by 2025:

68.1. to implement the programme of air traffic management concept CNS/ATM;

68.2. to implement the programme of the global satellite navigation system (GNSS);

68.3. to implement the means for usage of unmanned air transport;

68.4. to further implement the programme for the reduction of the negative impact of aircraft noise on the environment and human health;

68.5. to integrate the systems of surface, water, and space transport;

68.6. to continue the implementation of the programme for the modernization of training and professional development system of aviation specialists and its adjustment to new technologies;

68.7. to draft a framework for the use of unmanned transport for the carriage of freight and monitoring of technical equipment and state borders.

# VIII. INVESTMENT NEEDED FOR THE MODERNIZATION AND DEVELOPMENT OF THE LITHUANIAN TRANSPORT INFRASTRUCTURE

69. Taking account of the fact that the state investment is allocated to the Lithuanian transport system for the purpose of modernization and development of the transport infrastructure as well as ensuring traffic safety, the need for investment for the implementation of the Strategy measures was estimated for each individual area covered above.

70. For the purpose of estimating the need for investment, the following sources have been taken into account: The Cohesion Fund Strategy for 2004-2006, approved by a Joint Order No 1K-054/D1-79/3-99 of the Minister of Finance, the Minister of the Environment and the Minister of Transport and Communications of 20 February 2004 (Valstybes žinios (Official Gazette), No 33-1071, 2004), the Single Programming Document of Lithuania for 2004-2006 approved by Resolution No 935 of the Government of the Republic of Lithuania of 2 August 2004 (Valstybes žinios (Official Gazette) No 123-4486, 2004), Resolution No 1176 of the Government of the Republic of Lithuania of 1 October 2001 On the Approval of the Strategy for the Development of Border Control Posts (Valstybes žinios (Official Gazette) No 84-2935, 2001; No 118-5313, 2002), Resolution No 1194 of the Government of the Republic of Lithuania of 19 July 2002 On the National Action Plan of Schengen Acquis Adoption (Valstybės žinios (Official Gazette), No 74-3192, 2002), Resolution No 192 of the Government of the Republic of Lithuania of 18 February 2005 On the Distribution of Capital Investment for 2005 among Appropriation Managers and Investment Projects Provided for in the Public Investment Programme for 2005-2007 (Valstybes žinios (Official Gazette), No 25-810, 2005), reports on the strategy for individual transport system objects, as well as on the use of investment in the transport sector.

71. 50 % of funds for the transport infrastructure modernization will be received from EU structural funds and other 50 % of funds will include loans, allocations from the State budget of the Republic of Lithuania (including allocations from Road Maintenance and Development Programme), own funds and other funds.

72. The summary estimate of the investments needed for the modernisation and development of the Lithuanian transport infrastructure is provided in the Annex to this Strategy. It provides

information on investment requirements (LTL 4770m for 2004-2006, LTL 10650-13210m for 2007-2013), as well as on authorities in charge.

#### **IX. FINAL PROVISIONS**

73. The authority organizing and coordinating the implementation of provisions of this Strategy shall be the Ministry of Transport and Communications.

74. Further transport policy will be implemented in accordance with the provisions of this Strategy.

75. The implementation of this Strategy will be financed from the State budget of the Republic of Lithuania, municipal budgets and EU support funds, as well as of other sources.

76. The plans of use of the EU support for the financial period of 2007-2013 should be drafted by taking account of this Strategy.

Annex to the Long-Term (Until 2025) Development Strategy of the Lithuanian Transport System

# SUMMARY ESTIMATE OF THE INVESTMENTS NEEDED FOR THE MODERNISATION AND DEVELOPMENT OF THE LITHUANIAN TRANSPORT INFRASTRUCTURE

| NT  |                                     | Funds nee | ded, LTL m |                                       | Authority in charge                  |  |  |  |
|-----|-------------------------------------|-----------|------------|---------------------------------------|--------------------------------------|--|--|--|
| No. | Infrastructure modernisation works  | 2004-2006 | 2007-2013  | Possible funding sources <sup>*</sup> |                                      |  |  |  |
|     | I. ROAD TRANSPORT                   |           |            |                                       |                                      |  |  |  |
| 1.  | Development of transport corridor   | 187       | 200–250    | Cohesion Fund, State budget           | Ministry of Transport and            |  |  |  |
|     | IXB (Vilnius – Kaunas– Klaipėda)    |           |            | of the Republic of Lithuania          | Communications, Ministry of Finance, |  |  |  |
|     |                                     |           |            | (hereinafter – State budget)          | Transport Investment Directorate,    |  |  |  |
|     |                                     |           |            |                                       | Lithuanian Road Administration under |  |  |  |
|     |                                     |           |            |                                       | the Ministry of Transport and        |  |  |  |
|     |                                     |           |            |                                       | Communications (hereinafter –        |  |  |  |
|     |                                     |           |            |                                       | Lithuanian Road Administration)      |  |  |  |
| 2.  | Development of transport corridor   | 42        | 25         | Cohesion Fund, State budget           | Ministry of Transport and            |  |  |  |
|     | IXD                                 |           |            |                                       | Communications, Ministry of Finance, |  |  |  |
|     |                                     |           |            |                                       | Transport Investment Directorate,    |  |  |  |
|     |                                     |           |            |                                       | Lithuanian Road Administration       |  |  |  |
| 3.  | Development of I transport corridor | 84        | 190-200    | Cohesion Fund, State budget           | Ministry of Transport and            |  |  |  |
|     | (Via Baltica)                       |           |            |                                       | Communications, Ministry of Finance, |  |  |  |
|     |                                     |           |            |                                       | Transport Investment Directorate,    |  |  |  |
|     |                                     |           |            |                                       | Lithuanian Road Administration       |  |  |  |
| 4.  | Development of the road Riga-       | 46        | 160-180    | Cohesion Fund, State budget           | Ministry of Transport and            |  |  |  |

| NT  |  | Funds nee | eded, LTL m |  | Authority in charge  |
|-----|--|-----------|-------------|--|--|
| No. | Infrastructure modernisation works   | 2004-2006 | 2007-2013   | Possible funding sources <sup>*</sup>                  |  |
|     | Šiauliai-Tauragė-Kaliningrad of the transport corridor IA                            |           |             |  | Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Lithuanian Road Administration  |
| 5.  | Development of roads A2, A6, A9,<br>A15, A16, A141 of the Trans-<br>European network | 328       | 250–300     | Cohesion Fund, State budget                            | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Lithuanian Road Administration                               |
| 6.  | Completion of the Highways Project   | 15        |             | State budget   | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Lithuanian Road Administration  |
| 7.  | Programme of the Lithuanian (Grave)<br>Roads Paving                                  | 140       | 500–700     | European Regional<br>Development Fund, State<br>budget | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Lithuanian Road Administration                               |
| 8.  | Renewal of the surface of national<br>and regional roads                             | 141       | 450–550     | European Regional<br>Development Fund, State<br>budget | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Lithuanian Road Administration                               |
| 9.  | Reconstruction of national and regional roads  | 140       | 400–450     | European Regional<br>Development Fund, State<br>budget | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Lithuanian Road Administration                               |
| 10. | Development of the transport corridor<br>IX B in Vilnius City                        | 260       | 170         | Cohesion Fund, State budget,<br>municipal funds        | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Vilnius City Municipality, Transport<br>Investment Directorate, Lithuanian Road<br>Administration |
| 11. | Introduction of measures of traffic safety and environmental protection              | 62        | 40–50       | European Regional<br>Development Fund, State<br>budget | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,   |

| NI-   |                                       | Funds nee | eded, LTL m |  |   |
|-------|---------------------------------------|-----------|-------------|--|---|
| No.   | Infrastructure modernisation works    | 2004-2006 | 2007-2013   | Possible funding sources <sup>*</sup>                    | Authority in charge   |
|       |                                       |           |             |  | Lithuanian Road Administration                                    |
| 12.   | Improvement of connections with       |           | 70–90       | European Regional  | Ministry of Transport and   |
| 12.   | international corridors               |           | 10 90       | Development Fund, State                                  | Communications, Ministry of Finance,                              |
|       |                                       |           |             | budget   | Transport Investment Directorate,                                 |
|       |                                       |           |             |  | Lithuanian Road Administration                                    |
| 13.   | Improvement of multimodal transport   |           | 165         | Cohesion Fund, Trans-                                    | Ministry of Transport and   |
|       | corridor IX B connection with sea     |           |             | European Network (TEN)                                   | Communications, Ministry of Finance,                              |
|       | motorways                             |           |             | Fund budget, State budget,                               | Klaipeda District Municipality, Transport                         |
|       |                                       |           |             | municipal funds  | Investment Directorate, Lithuanian Road                           |
|       |                                       |           |             |  | Administration, public limited liability                          |
|       |                                       |           |             |  | company AB Lietuvos Geležinkeliai                                 |
|       |                                       |           |             |  | (Lithuanian Railways) (hereinafter –                              |
|       |                                       |           |             |  | Lietuvos Geležinkeliai)   |
| 14.   | Implementation of quality             | 190       | 450-500     | European Regional  | Ministry of Transport and   |
|       | improvement measures of transport     |           |             | Development Fund, State                                  | Communications, Ministry of Finance,                              |
|       | services in municipalities            |           |             | budget, municipal funds                                  | Transport Investment Directorate,                                 |
|       |                                       |           |             |  | municipalities  |
| 15.   | Other projects: acquisition of fixed  | 375       | 280-300     | State budget   | Ministry of Transport and   |
|       | assets, territory planning, road      |           |             |  | Communications, Ministry of Finance,                              |
|       | building, construction of bridges and |           |             |  | Lithuanian Road Administration                                    |
| Г     | overpasses                            | 2010      | 2250 2020   |  |   |
| For r | oad transport, total                  | 2010      | 3350–3930   | TDANSDODT  | 1   |
| 16    | Renewal of tracks of the railway      | 214       |             | TRANSPORT  | Ministry of Transport and   |
| 16.   | 5                                     | 214       | 200-300     | loans, State budget, own<br>funds of companies and other | Ministry of Transport and<br>Communications, Ministry of Finance, |
|       | transport corridor IX                 |           |             | funds (hereinafter – own                                 | Lietuvos Geležinkeliai  |
|       |                                       |           |             | funds (neremaner – own funds)                            | Lieiuvos Gelezinkellul  |
| 17.   | Modernisation of power supply and     | 230       | 250-300     | Cohesion Fund, State budget,                             | Ministry of Transport and   |
|       |                                       |           |             | .,   |   |

| NT  |   | Funds nee | eded, LTL m |   |  |
|-----|---|-----------|-------------|---|--|
| No. | Infrastructure modernisation works                            | 2004-2006 | 2007-2013   | Possible funding sources <sup>*</sup>                             | Authority in charge  |
|     | signalling equipment  |           |             | own funds   | Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate                              |
| 18. | Reconstruction of railway bridges of<br>the Crete corridor IX | 70        | 100–150     | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 19. | Modernisation of marshalling yards                            | 30        | 60–80       | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 20. | Modernisation of telecommunications                           | 19        | 100–150     | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 21. | Renewal of Kaunas railway tunnel                              | 17        | 70          | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 22. | Modernisation of Hot Axle Box<br>Detectors (HABD)             | 70        |             | European Regional<br>Development Fund, State<br>budget, own funds | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 23. | Upgrade of radio communications<br>with GSM-R                 | 42        | 170–200     | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 24. | Improvement of interoperability of port and railway transport | 56        | 125–140     | Cohesion Fund, State budget,<br>own funds                         | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport                           |

| NT    |   | Funds nee | eded, LTL m | D 11 C 1 *  |  |
|-------|---|-----------|-------------|---|--|
| No.   | Infrastructure modernisation works                                      | 2004-2006 | 2007-2013   | Possible funding sources <sup>*</sup>   | Authority in charge  |
|       |   |           |             |   | Investment Directorate   |
| 25.   | Extension of station tracks for trains of 6000 tons                     | 10        | 90–110      | Cohesion Fund, State budget,<br>own funds   | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 26.   | Development of Vilnius railway node                                     | 17        | 15–25       | European Regional<br>Development Fund, State<br>budget, own funds                                 | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 27.   | Modernisation of connection lines                                       | 106       | 360–450     | European Regional<br>Development Fund, State<br>budget, own funds                                 | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 28.   | Reconstruction of tracks in transport<br>corridor IX for 160 km/h speed | 36        | 330–450     | Cohesion Fund, State budget,<br>own funds   | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 29.   | Construction of two-level crossings                                     | 20        | 180–250     | Cohesion Fund, State budget,<br>own funds   | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 30.   | Development of transport corridor I<br><i>Rail Baltica</i>              | 30        | 1000–1300   | Cohesion Fund, Trans-<br>European Network (TEN)<br>Fund budget, loans, State<br>budget, own funds | Ministry of Transport and<br>Communications, Ministry of Finance,<br><i>Lietuvos Geležinkeliai</i> , Transport<br>Investment Directorate |
| 31.   | Other railway transport projects  | 600       | 1400–1600   | European Regional<br>Development Fund, State<br>budget, own funds                                 | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, <i>Lietuvos Geležinkeliai</i>                          |
| For r | ailway transport, total   | 1567      | 4450–5575   |   |  |

| No.  | Infrastructure modernisation works  | Funds needed, LTL m |              |   | A .1 1   |
|------|---|---------------------|--------------|---|--|
| INU. |   | 2004-2006           | 2007-2013    | Possible funding sources <sup>*</sup> Authority in charge         | Authority in charge  |
|      |   |                     | III. WATER ' | FRANSPORT   |  |
| 32.  | Reconstruction of port gates  | 60                  |              | loans, own funds  | Ministry of Transport and<br>Communications, State enterprise<br>Klaipėda State Seaport Authority<br>(hereinafter – Klaipėda State Seaport<br>Authority) |
| 33.  | Construction of the terminal of<br>passenger and freight ferryboats at<br>Klaipėda State Seaport                                  | 32                  |              | loans, own funds  | Ministry of Transport and<br>Communications, Klaipėda State Seaport<br>Authority   |
| 34.  | Reconstruction of existing quays and construction of new ones   | 90                  | 250–300      | loans, own funds  | Ministry of Transport and<br>Communications, Klaipėda State Seaport<br>Authority   |
| 35.  | Reconstruction of the railway hub   | 78                  | 100–150      | European Regional<br>Development Fund, own<br>funds               | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Klaipėda State Seaport Authority               |
| 36.  | Complex development of an inland<br>waterway on the river Nemunas and<br>the Curonian Lagoon; modernisation<br>of ports and piers | 10                  | 70–100       | European Regional<br>Development Fund, State<br>budget, own funds | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate, State<br>Inland Waterways Authority               |
| 37.  | Construction of the deepwater<br>Klaipėda Seaport   |                     | 200–300      | Cohesion Fund, State budget,<br>loans, own funds                  | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate,<br>Klaipėda State Seaport Authority               |
| 38.  | Other projects:   | 100                 | 400–600      | loans, own funds  | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Klaipėda State Seaport Authority  |
| For  | water transport, total  | 370                 | 1020-1450    |   |  |
|      |   |                     | IV. AIR TR   | ANSPORT   |  |

| N     |  | Funds nee | eded, LTL m |  |   |
|-------|--|-----------|-------------|--|---|
| No.   | Infrastructure modernisation works   | 2004-2006 | 2007-2013   | Possible funding sources <sup>*</sup>  | Authority in charge   |
| 39.   | Modernisation of equipment of<br>regional air traffic management<br>centres  | 28        |             | European Regional<br>Development Fund, own<br>funds                              | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, public enterprise <i>Oro</i><br><i>Navigacija</i> |
| 40.   | Improvement of instrument landing systems  | 7         | 25–30       | European Regional<br>Development Fund, own<br>funds                              | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, <i>Oro Navigacija</i>                             |
| 41.   | Modernization of runways, light signalling systems   | 22        | 40–50       | European Regional<br>Development Fund, own<br>funds                              | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, <i>Oro Navigacija</i>                             |
| 42.   | Modernisation of security systems of<br>territories of Vilnius, Kaunas and<br>Palanga airports   | 10        |             | European Regional<br>Development Fund, own<br>funds                              | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, airports  |
| 43.   | Meeting the Schengen requirements<br>in the terminals of international<br>airports of Vilnius, Kaunas and<br>Palanga, construction (enlargement)<br>of passenger terminals | 30        | 15–25       | Funds of Schengen, funds of companies  | Ministry of Transport and<br>Communications, Ministry of the<br>Interior, airports  |
| 44.   | Implementation of other projects of aviation security and flight safety  | 6         | 100–150     | Cohesion Fund, European<br>Regional Development Fund,<br>State budget, own funds | Ministry of Transport and<br>Communications, Transport Investment<br>Directorate, airports  |
| For a | air transport, total   | 103       | 180–255     |  |   |
|       |  | -         |             | PROJECTS   |   |
| 45.   | Reorganization of border control<br>posts with Russia, Belarus and in<br>Klaipėda State Seaport  | 200       | 100–150     | Schengen Funds and State<br>budget   | Ministry of Transport and<br>Communications, Ministry of the<br>Interior, Ministry of Finance, Transport<br>Investment Directorate  |
| 46.   | Building of external transport<br>infrastructure for logistic centres in<br>Vilnius, Kaunas and Klaipėda (by   |           | 350-450     | Cohesion Fund, State budget  | Ministry of Transport and<br>Communications, Ministry of Finance,<br>Transport Investment Directorate                               |

| No                        | To for star store and a minute star | Funds nee | ded, LTL m  | Possible funding sources*     | Authority in charge             |
|---------------------------|-------------------------------------|-----------|-------------|-------------------------------|---------------------------------|
| No.                       | Infrastructure modernisation works  | 2004-2006 | 2007-2013   |                               |                                 |
|                           | necessity in other regions as well) |           |             |                               |                                 |
| 47.                       | Municipal projects implemented      | 520       | 1200-1400   | State budget, municipal funds | Ministry of Transport and       |
|                           | using allocations from Road         |           |             |                               | Communications, municipalities, |
|                           | Maintenance and Development         |           |             |                               | Lithuanian Road Administration  |
|                           | Programme                           |           |             |                               |                                 |
| For other projects, total |                                     | 720       | 1650-2000   |                               |                                 |
| GRAND TOTAL               |                                     | 4770      | 10650-13210 |                               |                                 |

<sup>\*</sup> It is planned that 50 % of funds for the transport infrastructure modernization will come from the EU and the other 50 % of funds will include loans, allocations from the State budget of the Republic of Lithuania (including allocations from Road Maintenance and Development Programme), own funds and other funds.