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**GOVERNMENT OF THE REPUBLIC OF LITHUANIA**

**RESOLUTION  
ON THE NATIONAL TRANSPORT DEVELOPMENT PROGRAMME FOR 2014-  
2022**

18 December 2013, No 1253

Vilnius

1. To approve the National Transport Development Programme for 2014-2022 (annexed).
2. To propose to municipalities that they participate in implementing the National Transport Development Programme for 2014-2022.

The Prime Minister

Algirdas Butkevičius

Minister for Transport and Communications

Mr Rimantas Sinkevičius

APPROVED  
By Lithuanian Government Resolution  
of 18 December 2013, No 1253  
(Version of Lithuanian Government  
Resolution of 15 December 2014,  
No 1443)

## **THE NATIONAL TRANSPORT DEVELOPMENT PROGRAMME FOR 2014-2022**

### **CHAPTER I GENERAL PROVISIONS**

1. The National Transport Development Programme for 2014-2022 (hereinafter, the 'Programme') has been drawn up taking into account the multiple benefits which the transport and communications sector provides to the State, society and the national economy. The Programme is necessary for the sustainable development of Lithuania's transport and communications system, the efficient management of public resources and use of European Union ('EU') Structural Funds, and in order to increase the competitiveness of the sector.

2. The Programme is a medium-term strategic planning document defining the strategic goal, the general objectives and tasks required to attain those objectives, the criteria for their evaluation and the authorities responsible for implementing the Programme. The Programme contains an analysis of the development prospects of the transport and communications sector, i.e. transport (road, rail, maritime, inland waterways and air), logistics and postal services. The areas of information society development and electronic communications, including their goals and objectives, are presented in the 2014-2020 Information Society Development Programme 'Digital Agenda for Lithuania', as approved by Resolution No 244 of the Government of the Republic of Lithuania of 12 March 2014 approving the 2014-2020 Information Society Development Programme 'Digital Agenda for Lithuania'. The Programme highlights horizontal priorities for transport development: the multimodality of transport, integrated urban transport, the application of intelligent transport systems to all modes of transport, road safety and security, increase in energy efficiency in the transport sector, and the development of environmentally friendly transport.

3. The Programme has been drawn up on the basis of the provisions set out in the following EU and national legislation, strategies and branch (sectoral) strategies: the 'Lithuania 2030' Lithuanian Progress Strategy' approved by Resolution No XI-2015 of the Parliament of the Republic of Lithuania (Seimas) of 15 May 2012 approving the 'Lithuania 2030' Lithuanian Progress Strategy; the 2014-2020 National Progress Programme approved by Resolution No 1482 of the Government of the Republic of Lithuania of 28 November 2012 approving the 2014-2020 National Progress Programme; the National Strategy for Climate Change Management Policy approved by Resolution No XI-2375 of the Parliament of the Republic of Lithuania of 6 November 2012 approving the National Strategy for Climate Change Management Policy; EU transport policy documents: the EU strategy for growth

‘Europe 2020’, the 2011 White Paper ‘Roadmap to a Single European Transport Area – Towards a competitive and resource-efficient transport system

(COM/2011/144), Communication from the Commission - A sustainable future for transport : Towards an integrated, technology-led and user friendly system (COM/2009/279), the Green Paper - Towards a new culture for urban mobility (COM/2007/551) (hereinafter ‘the Green Paper’), its Action Plan on Urban Mobility (COM/2009/490), and Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure (OL 2014 L 307, p. 1). Provisions for the improvement of road safety were laid down in the National Road Safety Development Programme for 2011-2017 adopted by Resolution No 257 of the Government of the Republic of Lithuania of 2 March 2011 approving the National Road Safety Development Programme for 2011-2017. European Union guidelines for the development of the trans-European transport network were laid down in Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (hereinafter ‘Regulation No 1315/2013’). The conditions, methods and procedures for implementing the EU Structural Funds for the purposes of the trans-European networks with a view to supporting projects of common interest in the transport, telecommunications and energy infrastructure sectors and exploiting potential synergies between those sectors were laid down in Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010.

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4. Definitions used in the Programme are defined in the Law of the Republic of Lithuania on the principles of transport activities, and other legislation governing activities in the transport sector and related thereto.

5. The evaluation of the current situation in the transport system is based on the documents and strategies referred to in paragraph 3 of the Programme, reflecting the current state of play in Lithuania’s transport system and related sectors. The current situation in the transport system is analysed in Annex 2 to the Programme and summarised in the strengths, weaknesses, opportunities and threats (SWOT) analysis of the transport system in Annex 3 to the Programme.

## **CHAPTER II**

### **OBJECTIVES AND TASKS OF THE PROGRAMME, ASSESSMENT CRITERIA AND THEIR SIGNIFICANCE**

6. The strategic goal of the Programme is to create a sustainable, environmentally friendly, competitive and high value-added Lithuanian transport system. The attainment of this strategic goal will enable the transport system to ensure high-quality, efficient, uninterrupted and sustainable public mobility and freight transport as well as the provision of high-quality logistics and postal services.

The Lithuanian transport network is an integral part of the transport system of the EU and the Baltic Sea region. Statistics Lithuania reports that the transport and communications sector generated 13% of the country's gross value added (GVA) in 2013; between 2009 and 2012, the sector's revenue grew almost twice as fast as that of Lithuania's economy, achieving a trade surplus for services; the transport sector is therefore one of the most strategically important branches of the Lithuanian economy. In order to ensure further economic growth, it is necessary to maintain the existing level of infrastructure and effectively expand transport infrastructure, both nationally and internationally, taking into account the aspects of sustainable development. A sustainable transport system is understood as an effective interaction between social, cultural, economic and ecological aspects. A good transport system ensures close cultural and social links, improves population mobility, expands international cooperation and tourism, enhances the business environment, and promotes business development without harming the environment and people.

A modern transport system policy must be based on a long-term vision; the Programme therefore puts great emphasis on addressing global challenges such as climate change, increasing energy efficiency, mobility demand management and creating new, sustainable mobility habits.

7. Programme Objective 1: to increase freight and passenger mobility by improving the core network corridors of the EU trans-European transport network and their connections with the national and local transport networks, and by enhancing the efficiency of interoperability between different modes of transport.

The creation of a single, integrated and efficient transport system is one of the main objectives of the EU's transport policy. Lithuania is crossed by the second corridor of the trans-European transport network (TEN-T), the North Sea-Baltic Corridor, which in Lithuania covers the north-south Via Baltica road and the Rail Baltica railway line currently under construction.

The existing TEN-T infrastructure in Lithuania does not meet some of the requirements of the TEN-T guidelines (Regulation No 1315/2013): the country lacks efficient connections, has not fully eliminated bottlenecks, has failed to apply intelligent transport systems (ITS), and the current state of its infrastructure is unable to ensure compliance with increasing traffic safety and environmental requirements. These shortcomings do not guarantee the achievement of the TEN-T key objective: seamless and safe passenger and freight mobility.

Inefficient connections between different modes of transport and the lack of network facilities between basic and general transport mean that there is insufficient interoperability

between different modes of transport, while such interoperability would not only reduce prices for passenger and freight transport and improve the flexibility of transport services, but would also reduce the negative environmental and social impact of the transport system.

Rail freight and passenger mobility would be increased by constructing a 1 435 mm gauge track from Kaunas to the state border with Latvia, building secondary tracks, electrifying the TEN-T infrastructure, and deploying the European Railway Traffic Management System (hereinafter, 'ERTMS'). As for road transport, greater freight and passenger mobility would be achieved by improving the parameters of the TEN-T section in Lithuania, upgrading and expanding the road infrastructure within this network, connecting primary, secondary and trunk roads (primary roads are gravel roads and asphalted local roads in rural areas; secondary roads are regional roads which connect local roads and generate traffic flows; tertiary roads are trunk roads which provide links with the core TEN-T), deploying ITS, upgrading and developing border checkpoints at the external EU borders in line with the Schengen requirements, EU customs legislation and international security requirements, and implementing innovative solutions. With regard to maritime transport, freight and passenger mobility would be increased by improving interoperability between maritime transport and other transport modes, increasing the capacity of access railways at Klaipėda State Seaport (hereinafter, 'Klaipėda Port'), dredging the port's water area and changing the parameters of piers. As for inland waterway transport, freight and passenger mobility would be increased by improving and modernising the infrastructure for passenger and freight transport and by enhancing interoperability with other modes of transport. In the area of air transport, freight and passenger mobility would be increased by improving and modernising airport infrastructure within the TEN-T.

This objective will be pursued on the basis of the following tasks, the overall result of which will also ensure the implementation of horizontal transport development priorities.

7.1. Task 1: to build new and upgrade and improve existing railway infrastructure of international and local significance (including the construction of new railway routes under the Rail Baltica project and of secondary tracks and bypasses) and implement new control-command, signalling and energy subsystem projects (including electrification of railway lines).

7.1.1. The total length of Lithuania's railway tracks is currently 1 771.2 km, the major part of which (1 749.4 km) consists of tracks of 1 520 mm gauge tracks, while 1 435 mm gauge tracks account for only 21.8 km. The difference in track gauges is the reason why Lithuania does not have a direct connection with the European railway network; rail transport is thus not an attractive option compared to other transport modes. The development of the TEN-T North Sea-Baltic Corridor aims to ensure the implementation of the Rail Baltica project, which was identified by Regulation No 1315/2013 as one of the six missing cross-border projects and recognised by the Lithuanian Parliament (Seimas) as a project of particular national importance. Following the completion of the first stage of the Rail Baltica project, a 1 435 mm gauge track from the Lithuanian state border with Poland to Kaunas will

be constructed, but north-south freight and passenger railway mobility will remain insufficient. To increase mobility, it is planned to continue implementing the Rail Baltica project from Kaunas to the Lithuanian-Latvian border.

On 16 September 2013, the Transport Ministers of Finland, Estonia, Latvia, Lithuania and Poland signed a declaration concerning the implementation and the key provisions of the Rail Baltica 2 project (the plan is to construct a 1 435 mm gauge link between Kaunas and Vilnius), as approved by the Prime Ministers of the Baltic States. The EU Roadmap to a Single European Transport Area requires the capitals of European states to be connected by intermodal links. Vilnius generates 40% of Lithuania's GDP and has the densest population in Lithuania, so the construction of Vilnius rail connection would ensure additional train flows and add socio-economic value to the Rail Baltica project. The connection of Vilnius to the Rail Baltica route is planned after the construction of the project's current sections have been completed.

Efficient rail connectivity would improve Lithuania's accessibility, facilitate convenient and smooth links with the administrative, cultural and political centres of the Baltic States, and allow the implementation of the EU TEN-T policy objective to ensure seamless freight and passenger mobility.

7.1.2. There is very little electrified railway track within the Lithuanian railway network, accounting for a mere 7% of the total railway track. This is the lowest rate among the EU Member States. Railway electrification is one of the tasks provided for in the TEN-T development guidelines. The electrification of the railway network would enable the transition from fossil fuels to renewable energy sources in the railway transport sector, mitigating its environmental impact and making railways more attractive for passenger and freight transport by environmentally friendly means. Based on data from 2013, double-track railways in Lithuania accounted for only 22% of the total length of the railway network. This leads to problems such as the ability of trains travelling in opposite directions to pass each other and the overtaking of slower moving trains. The development of double-track railway sections would reduce the number of bottlenecks, increase transport speed and boost the attractiveness of rail transport. To ensure safe and efficient train shunting and train formation, it is necessary to reconstruct station yards and modernise railway junctions. ITS are underused in the Lithuanian railway infrastructure since there is no integration with the ERTMS. New ITS control-command, signalling and energy subsystem projects need to be implemented to ensure traffic safety. Efficient management systems would reduce management costs and the likelihood of human error.

7.2. Task 2: To develop new and improve existing TEN-T road infrastructure and connections to it.

7.2.1. Lithuania's current network of roads of national significance covers a total of 21 242 km, of which there are 1 746 km of trunk roads, 4 929 km of regional roads and 14 567 km of local roads. 1 617 km of trunk roads in Lithuania belong to the TEN-T network.

An adequate technical level of infrastructure, as defined in the TEN-T development guidelines, must be achieved and maintained in accordance with the criteria of speed, road safety, security and comfort, in order to ensure the seamless mobility of freight and passengers by road. Based on the TEN-T development guidelines, the Lithuanian road transport network lacks ITS solutions, freight terminals and logistics centres and connections between them and other modes in the TEN-T network as well as facilities related to the maintenance of infrastructure and control of its condition (truck weighing equipment, etc.).

7.2.2. 7.2.2. Under the TEN-T development guidelines, safe road traffic is a priority. Lithuania has already achieved significant results in the implementation of the Verona Declaration signed on 24 October 2003 in Verona (Italy) by the EU's Transport Ministers (hereinafter, the 'Verona Declaration') and the 2011 White Paper 'Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system' (COM (2011) 0144) (hereinafter, the 'White Paper'): the number of accidents and fatalities has halved compared to 2001; nevertheless, there is still a lack of safe, modern means of transport and ITS solutions, some roads do not meet the requirements applicable to motorways and express roads, including the axle load requirements and environmental protection measures, and there is a lack of bypasses around cities. The TEN-T roads and their access roads must be further modernised to secure implementation of the key TEN-T guidelines with regard to safe and smooth transport.

7.2.3. Experience from the implementation of the 2007-2013 EU Structural Funds, as described in the 2013 report assessing the impact of EU Structural Funds on local and urban development, has demonstrated that reconstructed district, regional and local roads attract new businesses and settlers and encourage the development of more diversified activities (rural tourism, manufacturing companies and service providers) along those roads. A good road network is a prerequisite for regional development, while TEN-T links are an important basis for the economic growth of regional centres. The modernisation of TEN-T access roads and the development of missing links are essential to the mobility of people living in the regions and the accessibility of transport services.

7.3. Task 3: To improve the interoperability of maritime and land transport in Klaipėda State Seaport (as part of the TEN-T) and its approaches, and to ensure the safety of maritime traffic and mitigate adverse environmental effects.

7.3.1. The functioning of Klaipėda Port, one of Lithuania's most important transport hubs, is inseparable from road and rail transport, which takes freight into and out of the port. The freight entering and leaving Klaipėda Port by rail (data from 2013) accounts for 71% of the port's total freight, but containers are mainly carried by road transport with only 18% of them carried by rail. The increasing flows of containers lead to an increased flow of goods vehicles in Klaipėda and its approaches. For these reasons, it is necessary to improve interoperability between Klaipėda Port and rail transport, in particular in the railway sections within the second TEN-T North Sea-Baltic Corridor, with a view to ensuring that more than two thirds of the total freight enter and leave the Port by rail. To that end, the development of

container terminals and ITS solutions must be encouraged at the approaches to Klaipėda Port, where flows from all terminals would be concentrated, and implementation of the proven shuttle train concept should be continued.

7.3.2. In view of EU transport policy of reducing road congestion by diverting freight flows from road to waterway transport, Lithuania is cooperating with EU Member States in implementing projects on developing motorways of the sea and short-sea shipping aimed at making better use of the existing maritime transport links and opening new regular transport links for the Member States' passengers and freight. The number of larger tonnage vessels is increasing in Klaipėda Port, giving rise to the need for wider shipping lanes, more detailed and more precise hydrographical information about those shipping lanes, their approaches and changes to them.

7.3.3. The current parameters of Klaipėda Port's water area, piers, entrance and shipping channel do not guarantee safe traffic for all types of vessels. According to 2014 data, the greatest depth in the Curonian Lagoon section up to Kiaulės Nugara island is 14.5 metres, although it decreases further within the port's water area to 9 metres near Kiaulės Nugara island and to 11 metres in Malkū Bay. Given the changing fleet parameters and the need for terminal service vessels to enter the port after the liquefied natural gas terminal has come into operation, it is necessary to ensure an adequate channel depth both at the entrance (17.0-17.5 m) and in the inside channel (17.0 m), and the port's entrance channel should also be widened. Owing to its limited width and insufficient depth, Klaipėda Port gate is a higher risk area for vessels, in particular for incoming vessels, when rapid current flows, side wind, heavy seas and flowing ice increase the risk of accident. It should be noted that the current maritime conditions vary in individual sections of the port. From a shipping point of view, there are some difficult places in Klaipėda Port that are determined by the port's geographical location: owing to the fact that the port is situated in close proximity to the seashore, there is no lateral shelter for ships entering the port, strong currents from the Curonian Lagoon to the sea are possible, in particular during the springtime thaw, and western winds are prevalent. To ensure maritime safety and maintain the design depths in Klaipėda Port, special equipment (a vessel) should be acquired.

7.3.4. These solutions to improve maritime safety may have negative environmental effects. Klaipėda Port is situated near the Curonian Spit, a UNESCO protected site, and is also close to the city of Klaipėda. This requires particular focus on maritime safety and the prevention of potential incidents in the port that could adversely affect the condition of this area. Klaipėda Port needs to receive deeper-draught vessels (with correspondingly larger tonnage) and thus reduce the number of ships entering the port, which would help reduce air and water pollution and the negative environmental impact. Growing economies of scale and vessel parameters are directly linked to the improvement of air quality, i.e. reduced emissions of CO<sub>2</sub> and other pollutants (CO, SO<sub>2</sub>, NO<sub>x</sub>, etc.), in the transport chain.

7.3.5. It is in Lithuania's interests to reconstruct Šventoji Seaport, which would help to intensify coastal navigation, boost recreational and commercial shipping and generate new



jobs in the region. In order to ensure the safety of maritime transport, suitable equipment is required to gather hydrographical information in coastal (shallow) areas and to identify barriers to navigation. The correct use of hydrographical data helps ensure safe and efficient navigation, promotes the proper development of the national maritime space, helps protect life and property at sea, and facilitates the protection of the marine environment and the proper management and sustainable development of marine resources.

7.4. Task 4: to develop waterways along the Nemunas river and the Curonian Lagoon and other inland waterways of national significance, to upgrade and expand the infrastructure for passenger and freight transport and to improve interoperability between inland waterway transport and other modes of transport.

7.4.1. The inland waterway transport infrastructure in Lithuania is underdeveloped: there are no links with other modes of transport, there are not enough wharfs, and not all sections meet the infrastructure parameters required for safe navigation. Lithuania has 915.1 km of inland waterways, of which: 820.1 km are routes of national significance, 60 km are routes of local significance, and 35 km are prospective routes. Inland waterway navigation is one of the safest means of passenger and freight transport: in 2012, one accident was recorded in the inland navigation sector; there were no fatalities. In 2013, this mode of transport was used to transport 1 076 700 tonnes of freight, a 3.6% increase compared to 2011. Although the amount of freight carried via inland waterways is increasing each year, all freight is transported locally, the major part (about 90%) being carried via the Curonian Lagoon (gravel, sand, cars) rather than via river routes, which means that the potential of this transport mode is underutilised. In 2012, the European Commission issued new guidelines on inland navigation and nature protection. The guidelines stress that Natura 2000 sites are not designed to be 'no development zones' and that new developments are not excluded provided that they are undertaken in a way that ensures adequate nature protection. Inland waterway transport accordingly has a larger development potential than road or rail transport.

The trends in passenger transport by inland waterways are similar to those in freight transport: in 2013, inland waterway transport carried 1 901 100 passengers, showing a 9.7% increase against 2011; however, the largest share of passengers carried by inland waterways were those travelling to the Curonian Spit on ferries. In 2013, 97% of all inland waterway passengers were carried on this route. Since other inland waterways are not used for passenger transport, the potential of this mode of transport is underutilised.

7.4.2. The inland waterway along the Nemunas river and the Curonian Lagoon E-41 Kaunas-Jurbarkas-Klaipėda is categorised as an inland waterway of international significance, although no international freight is transported via this section. To launch freight transport, it is necessary to comply with the parameters set out in the Inventory of Main Standards and Parameters of the Waterway Network (TRANS/SC.3/144) of the United Nations Economic Commission for Europe, and to perform regular maintenance operations on these waterways. Inland waterway transport should be developed as an environment-friendly and safe

alternative to road transport. In order to fully exploit inland waterways, it is necessary to create conditions for the transport of passengers and freight via inland waterways of national significance, in particular the E-41 Kaunas-Jurbarkas-Klaipėda inland waterway of international significance. It is also appropriate to integrate the Nemunas inland waterway into the international network of inland waterways and thus start to exploit the competitiveness of shipping and increase the share of multimodal transport. Combining different modes of transport (using inland waterways) would help to reduce the flow of goods transported by road.

7.5. Task 5: to ensure the sustainable mobility of cargo and passengers by air, and to modernise the infrastructure of Vilnius, Kaunas and Palanga airports.

7.5.1. The basic elements of the Lithuanian civil aviation infrastructure include three international TEN-T airports, i.e. Vilnius, Kaunas and Palanga, as well as the traffic control and air navigation system. The number of inbound and outbound air passengers increases each year in Lithuania (a 33% growth from 2010 to 2013), there is an increasing variety of destinations and flights and connections with Europe's cultural, administrative and economic centres are improving, which has led to increased environmental pollution and noise and created a need for investment in flight security and safety. The modernisation of airport transport infrastructure is necessary to reduce the negative environmental impact, to ensure flight safety, and to develop multimodal transport (especially at Kaunas airport).

Although the development of airports is useful to the country's economy and safeguards passenger mobility, for historical reasons, international airports are situated close to densely populated areas and aircraft pass across urban areas, which subjects the population to aircraft noise, and urban areas are subjected to pollution from aviation activities. With a view to mitigating the negative environmental impact of aviation, airport infrastructure needs to be reconstructed and optimised in order to reduce the time of manoeuvring between the parking areas, terminals and runways as well as the number of manoeuvres performed. Noise monitoring and control systems need to be upgraded to handle growing data flows and to be equipped with the latest software that can detect possible aircraft deviations from flight paths and incidences of noise thresholds being exceeded.

The maintenance of airport pavement still involves chemical substances that have a negative environmental impact when they enter soil and groundwater, requiring modernisation of surface runoff systems at international airports

7.5.2. One of the principal TEN-T provisions is to ensure safe passenger and freight transport. The existing structure of international airports meets international safety requirements, but the runway pavement is severely worn and the system of signal lights needs to be upgraded. Owing to increased number of flights and the resulting intensive aircraft traffic as well as to their long lifespan, most runways have cracks and indentations where water collects during rainfall. In accordance with international recommendations, the runway pavement is to be renovated every 10 to 12 years, on average, but the reconstruction works in

Vilnius and Kaunas airports were performed more than 10 years ago. This could affect flight safety in the near future.

With a view to improving aviation safety, it is necessary to modernise and optimise the taxiways, parking areas and other infrastructure of the international airports used for aircraft manoeuvring. The existing system cannot guarantee adequate manoeuvring safety for large aircraft or during peak times with numerous aircraft operating.

It should be noted that the existing systems for screening passengers and their baggage do not meet security requirements. The airport perimeter surveillance and security system should also be upgraded to ensure airport and flight safety and security.

7.6. Task 6 (horizontal): to deploy intelligent transport systems and technologies to improve the mobility of passengers and freight on TEN-T roads, other roads of national and local significance, urban streets, railways and inland waterways.

7.6.1. The TEN-T guidelines state that telematics systems form an integral part of all modes of transport and multimodal infrastructure. This network in Lithuania does not sufficiently ensure smooth movement of international and transit transport or road safety. There is a lack of ITS solutions for freight and passengers within all modes of transport. When implementing ITS infrastructure, the issues of interoperability between individual EU countries can become a serious challenge, and Lithuania therefore needs to integrate more into European ITS structures, train ITS specialists, develop ITS research, and collaborate extensively with Ertico-ITS Europe and other ITS associations.

7.6.2. The development of ITS solutions in one mode of transport (rail, road, maritime, inland water) would help in planning and controlling traffic flows, reducing transport time and fuel consumption, and increasing road safety. As demonstrated by the feasibility study on the implementation of intelligent (advanced) transport systems in Lithuania, commissioned by the Ministry of Transport and Communications of the Republic of Lithuania (hereinafter, the ‘Ministry of Transport and Communications’) in 2011, ITS needs to be deployed for weighing road goods vehicles because vehicles exceeding the set axle load are damaging infrastructure, leaving wheel ruts and endangering road safety. There are no measures to inform drivers about possible traffic disruptions in emergency and non-routine situations (e.g. during repairs). The aforementioned study highlights the need for an automatic system to monitor violations: a network of automatic devices is recommended to control violations on suburban and urban roads. These would be used to monitor speed and other road traffic offences. ITS development in multimodal transport would help to balance freight flows and improve passenger mobility and travel comfort.

The passenger transport sector also needs to deploy ITS, which would help improve interoperability between different modes of transport. There is currently no common public transport route information system covering all modes of transport, passengers do not have access to public transport information in one place and cannot plan trips using different transport modes, and there is a mismatch between public transport routes of different transport

modes. It is not convenient to use the services of different transport mode operators when planning door-to-door travel and passengers therefore increasingly prefer their private cars to multimodal transport. It is also very important to implement innovative travel payment systems.

7.7. Task 7: to modernise and develop border checkpoints at the external EU borders by implementing innovative solutions in line with Schengen requirements, EU customs legislation and international security requirements.

Following Lithuania's accession to the EU and the Schengen area, the qualitative requirements for border checkpoint infrastructure have risen. The infrastructure of border checkpoints must be consistent with legislation governing the activities of public authorities and bodies implementing controls, EU customs legislation, the Schengen acquis, and international security requirements. Currently not all border checkpoints at the EU's external borders meet the requirements laid down in terms of their legal status and infrastructure; therefore, with a view to safeguarding the smooth functioning of border checkpoints, it is necessary to implement innovative solutions for the control of persons and to develop new or reorganise the existing infrastructure of border checkpoints.

7.8. Task 8: to establish and develop the infrastructure of public logistics centres and ensure their interconnections with international transport corridors.

Apart from Klaipėda Port, the country has no other industrial-logistics areas ('freight villages') concentrating multimodal freight flows and hosting transport, logistics and other service providers. The country is rapidly developing distribution warehouses and terminals for unimodal (road) transport, which are often mistakenly referred to as logistics centres. Warehouses are located along the main trunk roads, but there are no signs of territorial concentration, which makes it difficult to increase interoperability between different modes of transport and concentrate freight flows on rail. The EU's freight transport policy is aimed at ensuring coherent interoperability between different transport modes and developing intermodal transport solutions, promoting a shift from road transport to other modes (railway, inland water) that are environment-friendly, safer from the traffic point of view and less dependent on fossil fuel. To ensure the interoperability of intermodal transport, in particular within TEN-T, public logistics centres need to be established and developed. At the initiative of the State, a decision has been taken to establish public logistics centres near international transport corridors, industrial areas and major transport hubs, with at least one intermodal transport terminal for container transshipment and storage, and a logistics park to host companies providing various ancillary services. When establishing public logistics centres, efficient links with international transport corridors must also be ensured. The Vilnius Public Logistics Centre will be established next to Vaidotai railway marshalling yard. The plan is to construct a Vilnius southern bypass section near this area. The Kaunas Public Logistics Centre will be set up next to the country's main roads (the A1 and A6 express roads and others) and Kaunas International Airport. In 2013, the construction of the intermodal

terminals of Vilnius and Kaunas public logistics centres ('PLC') was launched. When the financial situation allows, it is planned to establish an intermodal terminal for Klaipėda Public Logistics Centre (PLC) to connect road, rail and maritime transport. The terminal is to be constructed near Klaipėda Port and will be linked up with the Port's southern railway junction. The intermodal terminals established in the PLC will be integrated into the second TEN-T North Sea-Baltic Corridor.

8. Programme Objective 2: as part of an active transport policy, to enhance the competitiveness of the transport sector and improve the quality of transport and logistics services.

On average, around 30% of the annual revenue in the transport sector, comes from freight handling, storage and logistics operations. This shows that not only transport but also ancillary services created in the country generate revenue. In order to exploit this strength of the country's transport sector, further improvements to the quality of transport and logistics services are needed. This would help create even higher added value in the transport sector and make a significant contribution to the country's economic growth.

The competitiveness of the transport sector would be enhanced by a more favourable policy and legal environment, increased mobility of passengers and freight in the Baltic Sea region, enhanced interconnections between the Baltic Sea and the Black Sea, improved quality of the universal postal service and increased competitiveness of postal services.

The objective will be pursued through the following tasks, the overall result of which will also ensure the implementation of horizontal transport development priorities.

8.1. Task 1: to pursue an active international transport policy with a view to maximising the national share of transport and logistics services in global (European and Asian) and regional (Baltic) trade markets.

In order to boost the competitiveness of the Lithuanian transport sector, it is necessary to pursue an active international transport policy that would help to fully exploit the strengths of the Lithuanian transport sector and increase the attractiveness of the country's transport and logistics services market. The transport sector accounts for 12.8% of the country's GDP and is one of the leading areas in terms of the export of services. The neighbouring countries (Latvia, Estonia, Poland and the Russian Federation) are actively competing for maritime freight flows and providing road and rail transport services based on similar pricing principles. It is therefore necessary to strengthen the international competitiveness of the transport sector. Good infrastructure conditions are not enough to attract passenger and freight flows. It is also necessary to implement policy measures to increase the number and attractiveness of international transport routes through Lithuania. A favourable legal and political environment, addressing safety and security issues, and efficient interoperability between different modes of transport are important to ensuring long-term freight flows. With a view to achieving the EU climate goals and ensuring sustainable mobility, international

intermodal transport routes should be developed. As part of the international transport policy, priority must be given to interoperability between different modes of transport (rail and inland waterway transport), better exploitation of rail and waterway transport, which would contribute to increased attractiveness and competitiveness of the Lithuanian transport system both in EU and in global markets.

8.2. Task 2: To increase the attractiveness of additional transit-related value-added services, taking into account the advantages of Lithuania as a transit country and the needs of private and state-owned companies.

Lithuania is a transit country through which the transport of freight and passengers is organised and developed. It should be noted that neighbouring countries can offer transport services of similar quality and competitive prices. If Lithuania is to secure its position as the most attractive transit and logistics state in the region, it must seek modern solutions guaranteeing competitive advantages and offer additional value-added services to consignors and consignees. One of Lithuania's strengths could be the efficient use of multimodal transport for the transit of large freight flows by using more environment-friendly modes of transport (rail, waterway transport), and efficient involvement of private and state-owned carriers into a common and coordinated system. Failure to implement the planned projects (e.g. Rail Baltica, public logistics centres) on time may eventually lead to the emergence of new directions of freight flows between the East and the West, bypassing Lithuania. The balancing of the country's transport system would allow for a rapid and efficient distribution of large freight flows, the creation of the effect of economies of scale using the TEN-T and national infrastructure.

8.3. Task 3: to develop international cooperation by improving passenger and freight mobility in the Baltic Sea region and by strengthening transport connections between the Baltic Sea and the Black Sea.

The East-West transport corridor is one of the most important intermodal transport development projects in Lithuania. Connecting this corridor to the main trans-Siberian route in the Russian Federation would create an alternative route for transporting freight between Asia and Europe by land instead of water. This corridor is of particular importance for the development of economic relations; it is therefore necessary to minimise the dependence of this logistics link on external factors. The transport corridor should follow multimodal transport principles; the East-West transport corridor has to be connected to the route of the 'Viking' shuttle container train, and a new land route between Europe and Asia has to be created, capable of ensuring a smooth and uninterrupted alternative for the movement of goods. To implement the afore-mentioned projects, it is important for Lithuania to pursue an active policy aimed at closer international cooperation, with a view to making Lithuania one of the main elements of the East-West transport corridor.

8.4. Task 4: to ensure the provision of a quality universal postal service matching the social, economic and technological needs of users of the service in a liberalised postal services market and the efficient functioning of the postal infrastructure throughout the territory of Lithuania.

In line with EU legislation, the Lithuanian postal market has been liberalised since 1 January 2013. Therefore, all postal service providers enjoy equal competitive conditions for providing their services to users, but the sole public limited liability company, Lithuanian Post, is obliged to provide a universal postal service throughout Lithuania. The public limited liability company Lietuvos paštas [hereinafter ‘Lithuanian Post’] seeks to provide postal service users (both in Lithuania and in the EU) with a high-quality, uninterrupted universal postal service. In the light of the rapid development of information and communication technologies, it is necessary to look for new services or ways of providing them in order to respond to the changing needs of postal service users. Standard postal services need to be more focused on e-services, meaning that the universal postal service must be automated and digitised. Automated universal postal service points would be accessible to users around the clock, which would make the service more convenient and attractive and lead to the growth of its clients and, by the same token, the number of the services. The provision of a digitised universal postal service would enable a rapid and convenient transfer of information; the service would be modern, accessible, user-friendly and in line with rapidly developing technologies. In addition, the provision of such a service would help prevent an increase in its costs, eliminate the need for compensation for possible losses related to the provision of the service from the state budget, while its price would be affordable to the clients.

8.5. Task 5: to enhance the competitiveness of postal services and to develop international cooperation in the postal services market.

The prospects and opportunities of international markets encourage the Lithuanian Post, as Lithuania’s nominated operator in the Universal Postal Union, to actively participate in the international postal services market and its development. While developing international cooperation and honouring international commitments, Lithuanian Post needs to improve the technological process of collecting, processing, distributing and delivering technological consignments using foreign practices and advanced technologies in order to meet the needs of users, taking into account the development of international e-commerce.

8.6. Task 6: to promote inter-institutional, public and private sectors’ cooperation in the implementation of the Lithuanian transport policy.

Active application of the private-public partnership (hereinafter, ‘PPP’) principle in the transport sector would facilitate earlier achievement of the strategic goals of the Lithuanian transport infrastructure. European practice shows that raising private funds would help accelerate the development of missing links within the trans-European transport network, upgrade other infrastructural elements and deploy ITS. In this context, it is important to improve legal regulation, expand training and qualification improvement activities, apply good practices and create conditions for applying the PPP model in implementing transport

infrastructure projects. The experience of other countries shows that about 60% of the total annual PPP project value, on average, goes to the transport sector; however, projects in other areas (culture, sports, energy, etc.) predominate in Lithuania. The above shows that the application of the PPP principle in the transport sector remains relevant both with regard to the implementation of major projects, which cannot be implemented with funds from the State budget, and of smaller projects, which lack funding but are attractive to private investors.

9. Programme Objective 3: to promote the sustainability of the local (urban and suburban) transport system.

Lithuania's local public transport systems no longer meet the current needs of the population, nor do they guarantee the desired quality of transport, and therefore more use is made of private cars. For example, according to a survey conducted in 2011, the share of private car journeys in the urban area of Vilnius between 2005 and 2011 increased by 12.3 percentage points from 48.1% to 60.4%. Private cars have become an attractive option for door-to-door travel owing to the insufficient integration of multi-modal public transport and the inconvenience of public transport networks. Problems in local transport systems are caused by limited coordination of urban development, insufficient quality of suburban transport, an unattractive public transport fleet, and underdeveloped systems promoting the use of non-motorised means of transport (pedestrian and cycling infrastructure). Old public transport vehicles are not adapted to people with disabilities and special needs or to parents with children, and there is a lack of universal design solutions. This results in traffic congestion, inadequate road safety, limited mobility of public transport and increased negative environmental impacts.

Suburban public transport fails to meet the needs of the population: with increasing levels of urbanisation and the expansion of large cities in Lithuania, the principles of sustainable development have not been complied with, urban areas have expanded, and private housing areas with a relatively low population density have grown (urban sprawl has increased). Ensuring access to public transport services in such areas is particularly difficult owing to both the low population density and inadequate road infrastructure (the roads are not wide enough for buses; there is no space for building bus stops). People living in such areas choose private cars because of the lack of quality public transport services, which creates additional traffic flows during peak hours. The absence of a single ticketing system makes it difficult to integrate urban and suburban transport, which further reduces the attractiveness of public suburban transport.

Integrated fleet renewal with environmentally friendly vehicles would increase the share of renewable energy used in the transport sector.

A sustainable local public transport system would be promoted by increasing the attractiveness of transport for passengers and mitigating negative environmental impacts, improving the compatibility of public and private transport, deploying different combined public and private transport interoperability systems, renovating and expanding infrastructure



for cycling, acquiring new environment-friendly vehicles, developing the infrastructure needed to promote the use of alternative energy sources (fuel) in transport (recharging of electric vehicles), and building bypasses around cities and towns.

This objective will be pursued on the basis of the following tasks, the overall result of which will also ensure the implementation of horizontal transport development priorities.

9.1. Task 1: to encourage cities to draw up and implement plans for sustainable urban mobility.

In Lithuanian cities, commuting by car accounts for the major share of all trips and is surpassed only by travelling on foot. Lithuania lacks the means to control mobility demand and promote sustainable behaviour and fails, therefore, to safeguard efficient and sustainable mobility in its cities.

With a view to enabling society to choose resource-efficient and accessibility-based travelling options, it is necessary to plan the development of the transport system in a targeted way. Urban mobility is mainly planned at municipal level. It should be noted that municipal strategic action plans do not pay sufficient attention to transport issues, in particular with regard to the application of the sustainable mobility principle. Given the above, it is recommended that Lithuanian resorts and towns/cities with a population of at least 25 000 should draw up sustainable urban mobility plans. Once drawn up, the sustainable urban mobility plans would create concepts for the integration of sustainable future transport into urban transport systems and provide for measures to minimise the use and impact of cars and to change mobility habits and behaviours, and to promote the use of environment-friendly vehicles. The sustainable urban mobility plans would be developed in line with the sustainable mobility provisions of the Communication from the European Commission 'Together towards competitive and resource-efficient urban mobility' (COM(2013) 913).

9.2. Task 2 - to ensure compatibility between the routes of public intermodal urban and suburban transport and their greater interoperability with private transport.

9.2.1. One of the main problems of urban and suburban transport is traffic congestion, which has a negative impact on the economy, social welfare, health and the environment. Municipal authorities have taken measures to reduce the negative effects of congestion, but a common and integrated approach is missing. The Green Paper calls for a policy of sustainable urban transport: promoting the use of public transport by increasing its attractiveness and accessibility, in particular for suburban residents, and ensuring the interoperability of various alternatives to urban mobility; developing Park & Ride systems, as well as other measures that change public mobility habits and increase the sustainability of urban transport.

9.2.2. In Lithuania, the coordination of interurban public transport is the responsibility of the State Road Transport Inspectorate under the Ministry of Transport and Communications, and that of urban and suburban transport is a function of municipal authorities. The public limited liability company Lietuvos geležinkeliai [Lithuanian Railways] coordinates interurban rail transport. These authorities only partially cooperate with each

other in route planning, scheduling, pricing, and information and marketing. With the expansion of major cities, suburban areas are covered by the territories of other municipalities (in the case of municipalities of major cities and districts), which leads to their exclusion from the common urban public transport system. Increased urbanisation has posed challenges to the transport system: the growth of urban sprawl, the development of cities and their suburbs, and the creation of new business centres and residential districts have adversely affected the development of the transport system, increased the demand for private cars, and public transport no longer meets the mobility needs of the population. Jobs and service centres (including public authorities) are concentrated in city centres, while residential districts are located on the outskirts and in the suburbs. This creates additional traffic flows, especially during peak hours. There are no solutions for combining private and public transport (e.g. Park & Ride systems).

9.3. Task 3: to promote the development of cycling infrastructure in cities: to develop seamless cycling network systems, to integrate cycling infrastructure into the common transport system, and to make pedestrian and cycling network development attractive and safe for the user.

Only a small number of municipalities in Lithuania deal effectively with mobility demand, and most of them continue to pursue an ineffective policy of response to mobility demand. Cities are being increasingly adapted to car owners rather than to pedestrians, cyclists or public transport passengers. Such an approach to addressing urban transport problems is of short-term benefit only as the root causes of the problem remain. For this reason, the use of environmentally friendly vehicles in urban areas and the development of the necessary infrastructure should be encouraged. There is a need to develop cycling infrastructure by creating bicycle lanes, parking lots, bicycle storage facilities and safe pedestrian paths and by applying road safety measures and measures to combine cycling with other modes of transport, for instance, enabling transport of bicycles by public transport, developing public bicycle rent systems, etc. The growing popularity of cycling would reduce the use of cars. This is demonstrated by the experience of the Nordic countries (Sweden, Finland and Norway). Even with harsher climates and more difficult terrain, cycling accounts for 5 to 10% of all trips in these countries, while in Lithuania only 0.5% of all commuting trips are by bike (the EU average is about 5%).

9.4. Task 4 - to encourage residents to use public transport and to increase the attractiveness of public transport by upgrading vehicles, improving public transport infrastructure and implementing universal design solutions, to increase the accessibility of public transport, deploy public transport priority systems and make wider use of ITS solutions.

9.4.1. Most often, it is one person per car, which leads to increased traffic congestion and other adverse effects. Municipalities own most bus fleets. Because of the very poor economic situation of bus fleets, it is impossible to upgrade public transport fleets at the

expense of the municipal companies themselves. Limited public transport renewal capacity is another stimulus to people to use their private transport. Statistics Lithuania reports a 13% increase in the number of individual cars per 1 000 individuals in Lithuania from 2008 to 2013. The increasing number of cars, worsening traffic conditions owing to limited street capacity, inflexible working hours (almost all public bodies have overlapping working hours), and the uncoordinated organisation of traffic increase congestion not only on central city streets but also on major urban access roads.

9.4.2. Increasing the attractiveness of public transport for residents currently using private cars is only possible if they are offered the same or a higher level of comfort (for example, faster peak-time travel); increasing the speed of urban public transport requires the separation of public transport lanes and ITS for travel planning. Lithuania has so far not developed any mechanism for organising, coordinating and developing combined passenger transport services. The electronic ticketing systems operated by private and municipal long-distance carriers are not mutually compatible, so passengers must buy separate tickets for each leg of their journey (sometimes at intermediate stops on suburban routes) from different long-distance carriers. There are also problems with route schedules because they are not coordinated with each other, and are presented in ways that are not attractive to the public and sometimes difficult to access, such as print-only messages at stops that cannot be read by non-locals. Due to these problems, the growing need for long-distance travel is met by using private cars rather than public transport.

9.5. Task 5: to reduce the negative impact of transit flows on urban transport systems and to develop and upgrade bypasses around towns and cities.

9.5.1. The TEN-T guidelines provide for the seamless, safe and rapid mobility of passengers and goods within the network. One of the weak points is cities on TEN-T routes, as they tend to have reduced road capacity and traffic safety. To address the problem, urban bypasses are being built to separate TEN-T traffic from local traffic. Not all cities have bypasses, making for increased through traffic.

9.5.2. Bypasses ease urban traffic flows: urban dispersion builds up internal traffic flows in major cities when residents merge into the general transit traffic flow as they travel. For example, following the opening of the Vilnius bypass, the city's residents are also actively using it as a means of saving travel time.

10. Programme Objective 4: to improve energy efficiency in transport and to mitigate the negative environmental impact of transport.

One of the areas of the 2014-2020 National Progress Programme for Lithuania as part of the objective 'to develop modern transport infrastructure and sustainable mobility' provides for the reduction of greenhouse gas emissions into the atmosphere. CO<sub>2</sub> emissions are projected to increase by no more than 34.7% between 2009 and 2020. The transport sector, as one of the main sources of pollution, must contribute to this target. The need for changes in the transport sector in terms of improved energy efficiency has also been raised in the Communication from the European Commission of 19 October 2006 'Action Plan for Energy

Efficiency: Realising the Potential' (COM(2006) 545). The Communication emphasises the importance of the transport sector to the European economy, accounting as it does for almost 20% of total primary energy consumption. In Lithuania, the transport sector accounts for 20.7% (EU average is 20.2%) of the country's total greenhouse gas emissions, of which 89.6% (2011 Eurostat data, EU average is 94.4%) are road transport emissions. The Communication from the European Commission of 11 November 2008 'Energy efficiency: delivering the 20% target' (COM(2008) 772) underlines the potential for additional 20% energy savings in the transport sector, which calls for a comprehensive and coherent approach involving different actors, including public and municipal authorities, infrastructure planners, carriers and the general public, an improvement to underdeveloped energy efficiency infrastructure and other measures to save energy.

As regards energy consumption in the Lithuanian transport sector, it should be noted that the sector is fully dependent on fossil fuels, the consumption of which is rising. Road transport is the main mode of transport in the country, and CO<sub>2</sub> emissions from road vehicles are increasing rapidly. Road vehicles are also on the increase, doubling in number between 1995 and 2012. The fastest growth was recorded in the number of cars (2.4 times during the period concerned) and tractors for semi-trailers (3.4 times). The growing number of these vehicles is due not only to the ever-increasing flow of goods and the improving economic situation of the population, but also to the unrestricted use of polluting vehicles in the absence of differentiated pollution charges.

Energy efficiency in transport would be improved and its negative environmental impact would be mitigated by modernising transport infrastructure, introducing specific measures to reduce the environmental impact, upgrading the public transport fleet and using alternative energy sources.

This objective will be pursued on the basis of the following tasks, the overall result of which will also ensure the implementation of horizontal transport development priorities.

10.1. Task 1: to promote more efficient consumption of energy resources and energy efficiency in the transport sector through economic and administrative measures.

The European Commission calls for the development of the transport system in a manner consistent with the minimisation of CO<sub>2</sub> emissions and emphasises energy efficiency. To date, the development of the Lithuanian transport system has been focused on the reduction of technological and infrastructural backwardness in the transport sector with a view to improving the status of the national transport infrastructure and integrating it into the EU transport networks. Although the public transport infrastructure has undergone some modernisation, and further modernisation has been planned, these efforts are not enough for the transport sector to achieve the energy targets set in 'Europe 2020'; the private sector must also be involved. Lithuania currently has no economic and administrative measures to involve private actors, except in the form of subsidies or tax incentives, and lacks a systematic

approach. The development and implementation of efficient economic and administrative measures could contribute to the common goal of improved energy efficiency at national level through cooperation between all users of transport infrastructure.

10.2. Task 2: to develop a culture of sustainable mobility, to promote energy efficiency and saving in transport among the public, and to enhance the requisite skills.

Lithuania currently has no comprehensive system to promote sustainable consumer behaviour. There are only isolated initiatives (such as a programme promoting road safety and responsible behaviour on the road) aimed at preventing certain behaviour, and educational activities explaining the principles of, need for and opportunities afforded by sustainable behaviour are required in order to develop sustainable user behaviour. The transport sector consists of infrastructure and infrastructure users. Infrastructure can encourage users to behave in different ways, but the users themselves make the final decisions. Improving the interaction between infrastructure and users in the transport sector requires the development of spatial planning documents, strategies and feasibility studies, with the help of professionals and the public, to enable more efficient deployment and use of sustainable transport infrastructure. New or upgraded infrastructure must allow consumers to choose energy efficient options. The culture of sustainable behaviour must be consistently developed. Only the establishment of a comprehensive system of public information, education and promotion measures and appropriate infrastructure will shape the long-term habits of transport infrastructure users.

10.3. Task 3: to increase energy efficiency by promoting the use of alternative energy sources (fuels) in transport, creating the necessary infrastructure and renewing the public transport fleet.

To develop an energy-efficient transport system, it is necessary to promote more energy-efficient modes of transport and exploit the best characteristics of each mode. More than 99% of vehicles in Lithuania run on fossil fuels. Plans to promote the use of alternative energy sources (fuels) are based on transitioning from fossil to alternative energy sources (e.g. through railway electrification), comprehensively renewing public transport fleets and regulating the share of biofuels in the total fuel mix. Lithuania currently has no network of electric vehicle recharging points nor a clear system for promoting the deployment of electric vehicles. To promote the use of alternative energy sources and the deployment of electric vehicles in the private sector, the network of electric vehicle recharging points should be developed and public and private-sector vehicles replaced in a coherent manner with alternatively fuelled vehicles. Alternative fuels include fuels or power sources which serve, at least partly, as a substitute for fossil (oil-based) sources in supplying energy for transport and which have the potential to contribute to its decarbonisation and enhance the environmental performance of the transport sector (e.g. electricity, hydrogen, biofuels, synthetic and paraffinic fuels, natural gas, including biomethane, in gaseous (compressed natural gas (CNG)) and liquefied form (liquefied natural gas (LNG)), and liquefied petroleum gas). To

promote alternative fuels in transport, the use of alternatively fuelled vehicles as well as the required infrastructure need to be expanded (by establishing electric vehicle recharging points and CNG and LNG refuelling points accessible to the public providing non-discriminatory access to users, and by facilitating the creation of non-public recharging points).

The Lithuanian alternative fuels market for the transport sector is dominated by liquefied petroleum gas (LPG) and biofuels. The annual consumption of these fuels represented about 210 000 tonnes of oil equivalent (TOE) in 2013 (compared to about 220 000 TOE for petrol and about 1 040 000 TOE for diesel). It should be noted that the consumer price for LPG in Lithuania is almost half the price of conventional fuels (diesel or petrol) despite the fact that excise duty on LPG in Lithuania is more than double the EU minimum. The network of LPG filling stations is already sufficiently developed in Lithuania, and the development of the infrastructure for other alternative fuels should therefore be promoted.

In 2013, biofuels accounted for about 4.5% of total fuel consumed in the transport sector. However, biofuels are used only as prescribed by the legislation of the Republic of Lithuania by adding them to petrol and diesel. The production and use of biofuels has been growing in Lithuania over recent years. Lithuania is seeking to encourage a transition from the production and use of biofuels produced from feed-stocks to advanced biofuels produced from waste materials. The aim will be to meet the target of ensuring that biofuels and other fuels produced from waste materials (non-food) in the transport sector represent the recommended minimum of 0.5% in final energy consumption by 2020.

Lithuania is focusing heavily on the development of electric vehicles. A comprehensive feasibility study on potential electric vehicle development (hereinafter ‘the Study’) was carried out by UAB Smart Continent LT in 2012 on behalf of the Ministry of the Economy, the Ministry of Energy and the Ministry of Transport and Communications. The Study recommends efforts to increase the number of electric vehicles recharged from the grid in Lithuania to between 15 000 to 16 000 by 2025 (from around 6 000 in 2020). The Study predicted that there would be 600 electric vehicles in 2015 (following the implementation of the proposed measures), but by early 2015 there were only 65 in the country, almost ten times fewer than forecast. It is expected that, by 2020, the number of electric vehicles in Lithuania might reach 1 200. Given the slow growth of the number of electric vehicles in Lithuania, urgent action must be taken to implement the funding instruments proposed in the Study (green procurement, compensation to consumers, pilot projects, etc.) with a view to achieving the electric vehicle development targets by 2025.

Other alternative fuels, such as CNG and LNG, are less popular in Lithuania than LPG or biofuel. CNG is basically only used for public transport in major cities. According to the State Enterprise Regitra, Lithuania had 161 CNG public buses and 10 CNG-electric hybrid buses in 2015. More than half of these buses were purchased in 2014, when 83 new CNG buses and 10 new hybrid buses were acquired by Lithuania’s urban passenger transport companies under the Special Climate Change Programme, from the proceeds received by the

Ministry of Environment from the sale of the assigned amount units issued for Lithuania. The new buses were purchased by passenger transport companies in Vilnius, Kaunas, Klaipėda, Šiauliai, Panevėžys, Marijampolė, Telšiai, Ukmergė and Elektrėnai. This measure would also be suited to promoting the deployment of an appropriate alternative fuels infrastructure in the public transport sector. LNG is currently mainly used in waterway transport. It is an attractive fuel alternative for vessels as a means of meeting the requirements for decreasing the sulphur content in marine fuels in the SO<sub>x</sub> Emission Control Areas (the Baltic and the North Sea).

The only seaport in Lithuania serving cargo vessels is Klaipėda Port. This port belongs to the TEN-T core network, its annual handling capacity is over 30 million tonnes, and it is located in a densely populated urban area. Efforts are therefore needed to reduce pollution in the port. One anti-pollution measure would be to provide shore-side electrical power to seagoing ships through a standardised interface (shore-side electricity supply). Klaipėda Port and some of the country's inland ports have shore-side electricity supply facilities for use by vessel owners under separate agreements with berth operators, so there is no additional need for their deployment.

Klaipėda Port is the only port in Lithuania that serves large container vessels running on LNG. As part of the TEN-T core network, it would be reasonable for Klaipėda Port to establish a LNG refuelling point. Considering that Lithuanian ports that are not part of the TEN-T network area are mostly used for tourism serving small boats that do not use LNG, there is no need for LNG refuelling points at Lithuanian ports that are not part of the TEN-T core network.

Lithuania's international airports (Vilnius, Kaunas, Palanga and Šiauliai) already have the necessary infrastructure to supply electricity to stationary airplanes. There is consequently no additional need in Lithuania for electricity supply facilities for stationary airplanes.

Neither hydrogen nor synthetic or paraffinic fuels are used in Lithuania. The development of an infrastructure for the use of hydrogen should not be pursued as a priority goal in the coming years because, at this stage, there are no hydrogen-powered motor vehicles in Lithuania. Due to high production costs and the limited range of models, there is currently little demand for these vehicles. In 2015, Lithuania had two hydrogen fuel experimental research laboratories operating in Pabradė and Kaunas, so supporting research into the use of hydrogen should remain a priority. Synthetic and paraffinic fuels can be distributed, stored and used via the existing infrastructure, but these fuels have not as yet been used extensively in transport owing to insufficiently developed technologies and high production costs.

The further development of the use of alternative fuels in transport in Lithuania is linked to increasing the ratios of biofuel blending in fossil fuels, the use of advanced biofuels (0.5% target for all types of vehicles by 2020), the use of electricity in road and rail transport, the use of CNG and biomethane in public buses and passenger cars, the use of LNG in marine vessels served by Klaipėda Port, and shore-side electricity supply to seagoing ships in Klaipėda Port.

With a view to implementing the 2015 Paris Agreement under the United Nations Framework Convention on Climate Change and achieving the targets for reducing greenhouse-gas emissions and air pollution set for Lithuania in the EU's 2030 framework for climate and energy policies and other legislation, priority is given to investments in low-emission transport technologies, higher energy efficiency and the use of renewable energy, while phasing out subsidies and tax incentives for fossil fuels and progressively withdrawing funding for infrastructure generating large amounts of greenhouse gases and air pollutants.

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10.4. Task 4: to mitigate the negative environmental impact of the transport system and to ensure compliance with the requirements of the Natura 2000 network and other conservation regimes applied to the protected areas and species.

Transport activities and infrastructural development have negative environmental effects. Environmental measures must therefore be implemented to reduce environmental damage and to prevent traffic accidents that are potentially harmful to the environment. Measures to reduce the negative impact on the environment must be implemented in road and rail transport infrastructure, at Klaipeda Port and Lithuanian airports. These transport infrastructures are close to or cover densely populated areas, Natura 2000 sites and other protected areas. Between 2007 and 2013, priority was given to upgrading and modernising infrastructure and increasing capacity, but insufficient attention was paid to the implementation of environmental protection measures. During the 2014-2022 period, more focus needs to be placed on the implementing new advanced environmental measures and upgrading existing ones.

10.5. Task 5: to mitigate the negative effects caused by transport noise by modernising and improving the infrastructure of roads and railways of national significance in line with strategic noise maps and noise prevention plans.

In 2007-2013, investments were made in noise registration and control systems and noise mapping. Strategic noise maps based on existing or predicted exposure to noise were drawn up. The strategic noise maps are designed to provide a generalised assessment of exposure to noise from different noise sources in a given area or to provide a generalised forecast. Based on the noise maps drawn up, appropriate engineering solutions for noise reduction would be applied in areas exposed to continuous noise. When planning new and reconstructing existing road sections, it is important to maintain and improve existing noise prevention practice by providing primary and aggregate noise management information to counties, municipalities, and the public, and improving engineering solutions related to noise reduction.

11. Programme Objective 5: to increase road safety and security.

Between 2001 and 2011, a major breakthrough in road safety was achieved as Lithuania became one of the countries that achieved the target of halving the number of



fatalities in 10 years (compared to 2001), as set in the Verona Declaration and the White Paper. Although the number of road fatalities has more than halved, Lithuania is still sixth from the bottom in the EU in terms of the number of traffic-related deaths per million inhabitants: in 2013, the number of fatalities per million inhabitants was 85. Rail transport safety is measured as the number of fatalities and serious injuries per million train-km per year, this figure being well above the 0.31 EU average rate of danger posed by rail transport to the public. In Lithuania, this rate is as high as 2.0 and is the largest among all EU states. According to data from 2012, 20 people were killed and 8 people were injured in rail accidents. Compared to 2004, when Lithuania joined the EU, the number of fatalities has dropped by 35%. This demonstrates the need for further investment in the development of safety measures for traffic infrastructure. The most important of these are efficient engineering and intelligent safe traffic measures. Safe roundabouts help reduce the number of fatalities and injuries by up to 95%. The introduction of safe traffic measures reduces the number black spots (the most dangerous places): in 2006, there were 270 of them in Lithuania, and in 2014, 43 black spots still remain officially. Another means of ensuring traffic safety is to build pedestrian and bicycle lanes. The separation of more vulnerable road users from the flow of motor vehicles has helped to reduce the number of injuries and fatalities: in 2007, 235 pedestrians and 73 cyclists were killed, while in 2011 those numbers were down to 137 and 26, respectively.

Taking into consideration the situation of traffic safety, which is improving but still poor in comparison with the EU, it is appropriate to implement measures to reduce the number of accidents and to ensure road safety.

Road safety and security would be enhanced by the introduction of signalling systems in rail transport infrastructure, the deployment of technical traffic safety measures and other innovations in road transport infrastructure, the modernisation of existing and the creation of new necessary elements of maritime transport infrastructure, and the upgrading of airport infrastructure within the trans-European transport network. The objective will be pursued through the following tasks, the overall result of which will also ensure the implementation of horizontal transport development priorities.

11.1. Task 1: to increase road safety and to implement technical traffic safety measures and other innovations.

11.1.1. Lithuania has not implemented all the safety measures recommended in the TEN-T guidelines on its TEN-T roads. In 2007-2013, priority was given to TEN-T roads, meaning that the majority of measures to improve road safety were implemented on TEN-T road sections. There is a clear improvement in the road safety situation on these roads, with almost no black spots on TEN-T roads, although they still exist on local and regional roads. 32% of Lithuania's regional roads are in a bad or very bad condition, while the scale of current road surfacing works (1.6% of the total road length in 2009) is five times below the

optimal level. Directive 2008/96/EC of the European Parliament and of the Council of 19 November 2008 on road infrastructure safety management provides for the introduction of traffic safety enhancement measures throughout the road infrastructure network. For this reason, technical road safety measures should continue to be implemented in road transport infrastructure in order to ensure the same level of safety throughout the road transport network.

11.1.2. In rail transport, most accidents involving people occur because of careless behaviour. In Lithuania, railways, especially in urban areas, are not sufficiently separated from pedestrians and there is a lack of footbridges. When attempting to cross a railway in an unsafe manner, pedestrians pose a risk to traffic safety, which requires the introduction of technical safety measures to limit the risk of unsafe crossing of railway tracks, monitoring equipment, warning systems and other technical safety solutions.

11.1.3. To ensure the safety of flights and aviation operations within the TEN-T, a coordinated upgrading of infrastructure in the airports within this network is necessary. This requires the modernisation of runways, taxiways, aprons, aircraft parking and air traffic control centres at Vilnius, Kaunas and Palanga airports. International airports were designed to accommodate smaller aircraft flows, so now it is difficult to ensure aircraft traffic safety within the airport with increasing aircraft traffic and the changing technical parameters of aircraft.

11.1.4. Safe navigation in Klaipėda Port is one of its major goals with a view to providing adequate and high-quality vessel supply services at the port and protecting neighbouring protected natural areas. The current technical characteristics of the port (difficult entry, different depths within the port water area) pose a constant risk to ships calling at the port, particularly in adverse weather conditions. Large ships use the same area as small ships, which poses additional challenges in terms of traffic safety, and shipping safety needs to be ensured in the port by modernising the existing infrastructure and creating new infrastructure.

11.2. Task 2: to increase traffic safety and security, to improve traffic management through ITS and other innovations.

Lithuania lacks ITS solutions to inform road users. ITS are essential for improving road safety and security, enabling road users to react quickly to dangerous traffic conditions and incidents, and adequately safeguarding transport infrastructure, vehicles and users. Lithuania also lacks ITS solutions for traffic management, such as digital display boards, traffic condition forecasting and traffic monitoring systems. These are necessary to increase traffic safety and reduce the number of road accidents and deaths.

12. The criteria for the implementation of the Programme's objectives and tasks, and their present and target values, are set out in Annex 1 to the Programme.

## **CHAPTER III**

## PROGRAMME IMPLEMENTATION

13. The Ministry of Transport and Communications coordinates and ensures the implementation of the Programme.

14. Implementation of the Programme is the responsibility of the Ministry of Transport and Communications, the entities and companies coming under its authority, the Ministry of Energy and the Ministry of Finance, each acting within their respective powers. Municipalities are also expected to participate in the Programme.

*Amended by:*

*No [86](#), 1/2/2017, published in the Register of Legal Acts (TAR) on 6/2/2017 with ID code 2017-02180*

15. The Programme's objectives and tasks are to be implemented on the basis of a plan of measures specifying the need for funds to implement measures and the responsible authorities.

16. The status of road transport infrastructure projects implemented in line with the Programme's objectives and tasks will be monitored in accordance with the Law of the Republic of Lithuania on the Financing of the Road Maintenance and Development Programme, which establishes the sources and procedure for funding the Road Maintenance and Development Programme. The Programme's funding resources are used to finance the renovation, modernisation and development of roads and other infrastructural elements in accordance with the annual fund estimates approved by the Lithuanian Government. The road maintenance and development programmes drawn up by the Ministry of Transport and Communications are implemented by the Lithuanian Road Administration under the Ministry of Transport and Communications.

17. The status of rail transport infrastructure projects implemented in the framework of the Programme's objectives and tasks will be monitored on the basis of the Railway Transport Code of the Republic of Lithuania, which determines the sources of funding for the modernisation and development of public railway infrastructure. The public railway infrastructure development, modernisation and development programmes approved by the Lithuanian Government are funded from the national budget, EU Structural Funds and private funds. Rail transport infrastructure upgrading, modernisation and development projects are implemented by the Infrastructure Directorate of the Lithuanian Railways (the public railway infrastructure manager).

18. The status of projects implemented in accordance with the Programme's objectives and tasks in the area of Klaipėda Port infrastructure will be monitored by State Enterprise Klaipėdos valstybinio jūrų uosto direkcija [Klaipėda State Seaport Authority]. The Authority's profit and EU Structural Funds and bank loans together form the source of public funding for the development of the Port's infrastructure, access roads and railways, deepening of the Port's water area, deployment of Port security measures and for ensuring the functioning of Klaipėda State Seaport Authority. In addition to the aforementioned functions,

Klaipėda State Seaport Authority implements pollution prevention measures in the Port and maintains design depths within the Port's water area, etc.

19. The status of inland waterway transport infrastructure projects implemented in accordance with the Programme's objectives and tasks will be monitored by the Roads Division of State Enterprise Vidaus vandens kelių direkcija [Lithuanian Inland Waterways Authority], whose functions include the development of navigation via Lithuania's inland waterways and ensuring qualitative and quantitative indicators for inland waterways. Infrastructure maintenance is financed from the State budget and EU Structural Funds.

20. The status of projects implemented in accordance with the objectives and tasks of the Programme in the area of air transport infrastructure will be monitored by the Civil Aviation Administration, the functions of which include the control of aerodromes and aviation safety. The airport infrastructure development, modernisation and expansion projects are funded from the budget of the State Enterprise Lietuvos oro uostų [Lithuanian Airports], the State budget and the EU Structural Funds.

21. The implementation of the Programme is monitored by the Ministry of Transport and Communications. At the end of the year, the Ministry of Transport and Communications will submit a Programme Implementation Report to the Lithuanian Government together with its annual activity report.

22. Implementation of the Programme is funded from general appropriations to the respective authorities responsible for the implementation of the Programme, as approved by the Law of the Republic of Lithuania on the approval of financial indicators of the State budget and municipal budgets for the respective year, EU Structural Funds and other legally obtained proceeds.

23. The Programme will also serve as a reference document for the sustainable and efficient use of EU Structural Funds for the 2014-2020 period.

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*Amendments to the Annex:*

No [1443](#), 15/12/2014, published in the Register of Legal Acts (TAR) on 23/12/2014 with ID code 2014-20606

National Transport Development  
 Programme for 2014-2022  
 Annex 1

**LIST OF ASSESSMENT CRITERIA FOR THE OBJECTIVES AND TASKS OF THE NATIONAL TRANSPORT PROGRAMME FOR 2014-2022 AND THEIR SIGNIFICANCE**

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
The strategic goal of the Programme is to create a sustainable, environmentally friendly, competitive and high value-added Lithuanian transport system						
	Increase in passenger transport by all modes of transport, million passengers (%)		395.0 (100)	399.0 (101)	405.0 (103)	Ministry of Transport and Communications of the Republic of Lithuania (hereinafter 'Ministry of Transport and Communications')
	Growth in the export of transport services, € million, %		2 763 (100)	3 041 (110)	3 302 (119.5)	
	Share of the transport and storage sector in gross value added, %		12.7	13.2	13.6	
	Annual greenhouse gas emission limit in the transport sector, million tonnes CO <sub>2</sub> e		4.54 (2012)	4.55	4.98	
Programme Objective 1: To increase freight and passenger mobility, improve the core network corridors of the EU trans-European transport network and their connections with the national and local transport networks and enhance the efficiency of interoperability between different modes of transport.						

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
	Freight handling at Klaipėda Port, million tonnes		35.2	40.0	50.0	
	Annual passenger flows at airports, million passengers		3.2	4.0	4.6	
	Average passenger train speed on renovated and upgraded TEN-T railway sections		80	80	85.6	
	Average passenger train speed on reconstructed and renovated non-TEN-T railway sections		50	50	53	
	Number of fatalities on TEN-T roads		44	40	37	
	Number of intermodal transport units carried		75 107	76 985	78 863	
	Reduced duration of ground manoeuvring* by one aircraft		16	16	12	
	Volume of freight carriage by inland waterways		70 000	80 000	100 000	
1.9.	To build new and upgrade and improve existing railway infrastructure of international and local significance (including the construction of new railway routes under the Rail Baltica project and of secondary tracks and bypasses) and implement new control-command, signalling and energy subsystem projects (including electrification of railway lines).	Length of newly built 1 435 mm gauge track, km	0	100	126	Ministry of Transport and Communications, State Railway Inspectorate under the Ministry of Transport and Communications, Lithuanian Railways
		Length of newly built 1 520 mm gauge track (including second tracks), km	0	64	75	
		Length of reconstructed 1 520 mm gauge track, km	0	92.4	196.4	
		Length of electrified railways, km	122	150	314	

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
1.10.	To develop new and improve existing TEN-T road infrastructure and connections to it.	Reconstruction of roads of national and local significance, km**	184	775	1 433	Ministry of Transport and Communications Lithuanian Road Administration under the Ministry of Transport and Communications
		Number of intersections reconstructed on TEN-T roads	1	8	23	
		**of which: Reconstruction of TEN-T roads, km	45	217	300	
1.11.	To improve the interoperability of maritime and land transport in Klaipėda State Seaport (as part of the TEN-T) and its approaches, and to ensure the safety of maritime traffic and mitigate adverse environmental effects.	Number of reconstructed or built piers	–	2	2	Ministry of Transport and Communications Klaipeda State Seaport Authority
		Reconstructed or newly built quays, m	3 628	4 214	4 214	
		Dredged port area, million m <sup>3</sup> of excavated soil	3.7	9.2	9.2	
		Dredger/excavator purchased to maintain the design depths in the port	–	1	1	
		Access roads built to maintain the design depths in the port, km (two-level crossing)	–	0.331	0.331	

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
1.12.	To develop waterways along the Nemunas river and the Curonian Lagoon and other inland waterways of national significance, to upgrade and expand the infrastructure for passenger and freight transport and to improve interoperability between inland waterway transport and other modes of transport.	Length of upgraded inland waterways, in km	18	30	40	Ministry of Transport and Communications Inland Waterways Directorate
		Number of wharfs built	–	1	1	
1.13.	To ensure the sustainable mobility of cargo and passengers by air, and to modernise the infrastructure of Vilnius, Kaunas and Palanga airports.	Number of modernised taxiways	–	2	3	Ministry of Transport and Communications Lithuanian Airports, State Enterprise Oro navigacija [Air navigation]
		Number of reconstructed runways	–	1	2	
		Area of installed ICAO-compliant hard surfaces in airports (taxiways and runways)	–	424 000	424 000	
		Number of reconstructed aprons	–	–	–	
		Number of new air traffic control systems installed	–	1	2	
		–	–	1	1	



No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
1.14.	To deploy intelligent transport systems and technologies to improve the mobility of passengers and freight on TEN-T roads, other roads of national and local significance, urban streets, railways and inland waterways.	Number of projects for deploying and upgrading ITS and other innovations contributing to passenger and freight mobility	–	2	3+(2)	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications Lithuanian Railways
1.15.	To modernise and develop border checkpoints at the external EU borders by implementing innovative solutions in line with Schengen requirements, EU customs legislation and international security requirements.	Number of reconstructed border checkpoints	1	8	16	Ministry of Transport and Communications, Directorate of Border Crossing Infrastructure under the Ministry of Transport and Communications
1.16.	To establish and develop the infrastructure of public logistics centres and ensure their interconnections with international transport corridors.	Number of intermodal transport terminals constructed	–	3	4	Ministry of Transport and Communications, Lithuanian Railways, municipalities

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
Programme Objective 2: as part of an active transport policy, to enhance the competitiveness of the transport sector and improve the quality of transport and logistics services.						
Transport services payment balance, € million			886	941	985	Ministry of Transport and Communications
Added value per hour actually worked in the transport sector, at current prices, €			21.1	21.6	22.3	
Share of revenue from postal services in GDP, %			0.27	0.32	0.38	
2.7.	Task 1: to pursue an active international transport policy with a view to maximising the national share of transport and logistics services in global (European and Asian) and regional (Baltic) trade markets.	Number of international intermodal transport routes	4	5	6	Ministry of Transport and Communications
2.8.	To increase the attractiveness of additional transit-related value-added services, taking into account the advantages of Lithuania as a transit country and the needs of private and state-owned companies.	Design capacity of border checkpoints, vehicles per day	12 120	13 120	15 200	Ministry of Transport and Communications Directorate of Border Crossing Infrastructure under the Ministry of Transport and Communications
2.9.	To develop international cooperation by improving passenger and freight mobility in the Baltic Sea region and by strengthening transport connections between the Baltic Sea and the Black Sea.	Number of states participating in Europe's Rail Freight Corridor 8	–	6	8	Ministry of Transport and Communications

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
2.10.	To ensure the provision of a quality universal postal service matching the social, economic and technological needs of users of the service in a liberalised postal services market and the efficient functioning of the postal infrastructure throughout the territory of Lithuania.	Decrease in reasoned complaints from postal service users concerning UPS, %  The optimum number of UPS access points	10  817	8  750	4  500	Ministry of Transport and Communications, Lithuanian Post
2.11.	To enhance the competitiveness of postal services and to develop international cooperation in the postal services market.	Revenue from cross-border postal services (postal items to and from Lithuania), € million	12.7	38	63	Ministry of Transport and Communications, Lithuanian Post
2.12.	To promote inter-institutional, public and private sector cooperation in the implementation of the Lithuanian transport policy.	Number of transport infrastructure projects implemented under inter-institutional and public-private partnerships	–	1	2	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications
Programme Objective 3: to promote the sustainability of the local (urban and suburban) transport system.						
Number of passengers in urban public transport, million passengers			234.9	239.5	244.0	Ministry of Transport and Communications
Share of travel by private car in total travel, %			91	90	89	

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
3.6.	To encourage cities to draw up and implement plans for sustainable urban mobility.	Number of sustainable mobility plans drawn up	1	3	5	Ministry of Transport and Communications, municipalities
3.7.	To ensure compatibility between the routes of public intermodal urban and suburban transport and their greater interoperability with private transport.	Number of cities with Park&Ride or other vehicle parking systems	–	2	4	Ministry of Transport and Communications, municipalities
		Number of information systems created covering all public transport	–	1	3	
3.8.	To promote the development of cycling infrastructure in cities: to develop seamless cycling network systems, to integrate cycling infrastructure into the public transport system, and to make pedestrian and cycling network development attractive and safe for the user	Length of bicycle paths in Lithuania's five major cities, km	399.3	420	440	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications
		Length of newly built separate pedestrian and bicycle paths along roads of national significance, km	24.3	74.3	124.3	
3.9.	To encourage residents to use public transport and to increase the attractiveness of public transport by upgrading vehicles, improving public transport infrastructure and implementing universal design solutions, to increase the accessibility of public transport, deploy public transport priority systems and make wider use of ITS solutions.	Number of public transport vehicles acquired	–	20	60	Lithuanian Railways Ministry of Transport and Communications, municipalities
		Number of public transport priority promotion systems introduced	1	2	2	

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
3.10.	To reduce the negative impact of through traffic on urban transport systems and to develop and upgrade bypasses around towns and cities.	Number of bypasses built on roads of national significance	1	5	12	Ministry of Transport and Communications, municipalities
<b>Programme Objective 4: To improve energy efficiency in transport and to mitigate the negative environmental impact of transport.</b>						
Annual consumption of automotive petrol and diesel (growth should be limited to 5% per year), thousand tonnes			1 279.6	1 633.1	2 084.3	Ministry of Transport and Communications
4.6.	To promote more efficient consumption of energy resources and energy efficiency in the transport sector through economic and administrative measures.	Number of electronic distance-based charging systems for commercial transport introduced	–	–	1	Ministry of Transport and Communications
4.7.	To develop a culture of sustainable mobility, to promote energy efficiency and saving in transport among the public, and to enhance the requisite skills.	Number of new drivers who have undergone eco-driving training, thousand	30	180	330	Ministry of Transport and Communications
4.8.	To increase energy efficiency by promoting the use of alternative energy sources (fuels) in transport, creating the necessary infrastructure and renewing the public transport fleet.	Number of lighting devices with wind turbines, solar panels and batteries installed to illuminate certain sites (intersections, pedestrian crossings, etc.)	4	11	22	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications, Lithuanian Railways
		Number of new-generation diesel trains	–	6	9	
		Number of new-generation electric trains	–	4	4	
		Number of electric vehicle recharging points accessible to the public (high-power, along the TEN-	–	19 (in 2020)	28	Ministry of Transport and Communicatio

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
		T road network)				ns, Lithuanian Road Administration under the Ministry of Transport and Communications
		Number of electric vehicle recharging points accessible to the public (in urban/suburban agglomerations with the population of over 25 000)	–	100 (in 2020)	100	municipalities
		Number of measures to encourage the deployment of electric vehicle recharging points not accessible to the public (tax reduction on electricity)	1	1	1	Ministry of Finance of the Republic of Lithuania
		Number of LNG refuelling points in inland and maritime ports in the TEN-T core network (Klaipėda Port)	–	–	1 (in 2025)	Ministry of Energy, Ministry of Transport and Communications
		Number of LNG refuelling points on the roads along the TEN-T core network (Kaunas)	–	–	1 (in 2025)	Ministry of Energy, Ministry of Transport and Communications
		Installation of an LNG distribution system to supply LNG refuelling points	–	–	1 (in 2025)	Ministry of Energy

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
		Number of CNG refuelling points accessible to the public in urban and suburban agglomerations (Vilnius, Kaunas, Klaipėda, Šiauliai, Panevėžys, Telšiai, Ukmergė, Marijampolė, Elektrėnai)	3	9 (in 2020)	9	Ministry of Energy, Ministry of Transport and Communications, municipalities
		Number of CNG refuelling points accessible to the public on motorways in the TEN-T core network (along roads E85 and E67)	–	–	10 (in 2025)	Ministry of Energy, Ministry of Transport and Communications
4.9.	To mitigate the negative environmental impact of the transport system and to ensure compliance with the requirements of Natura 2000 network and other conservation regimes applied to the protected areas and species.	Fencing for the protection of amphibians installed on roads, km	2.9	7.9	12.0	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications Klaipėda State Seaport Authority
		Fencing built to protect wildlife on the roads, including animal crossings, km	9.2	50.0	74.0	
		Number of surface waste water treatment plants established alongside roads of national significance: (particulate matter sedimentation tanks and sand traps)	9	30	60	
		Length of protective barrier (or any other alternative means of protecting a Natura 2000 area by deepening and widening the navigation channel of Klaipėda State Seaport to the maximum possible extent) built in the	–	–	11	

No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
		Curonian Spit, km				
4.10.	To mitigate the negative effects caused by transport noise by modernising and improving the infrastructure of roads and railways of national significance in line with strategic noise maps and noise prevention plans.	Length of noise barriers built alongside roads of national significance, km	1.1	3.4	5.5	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications, State Railway Inspectorate under the Ministry of Transport and Communications, Lithuanian Railways
		Length of noise barriers built alongside the railway network of national significance, km	–	41	41	
		Strategic noise maps updated for the main railways used by over 30 000 trains per year and noise prevention action plans drawn up	–	1	2	
		Strategic noise map for the entire Lithuanian railway network and the noise prevention action plan drawn up	–	–	1	
<b>Programme Objective 5: To increase road safety and security.</b>						
Number of fatalities in traffic accidents			322	242	161	Ministry of Transport and Communications
5.3.	To increase road safety and to implement technical traffic safety measures and other innovations.	Number of technical road safety systems installed (safety islands, level crossing barriers, mobile monitoring equipment, etc.)	0	1	1	State Railway Inspectorate under the Ministry of Transport and Communications,



No	Objective, task	Assessment criterion	Significance of assessment criterion			Responsible Authority
			2012	2017	2022	
5.4.	To increase traffic safety and security and improve traffic management through ITS and other innovations.	Number of ITS and other innovation projects implemented to improve safety and security and improve traffic management	–	2 + (2)	3 + (1) + (2)	Ministry of Transport and Communications, Lithuanian Road Administration under the Ministry of Transport and Communications State Railway Inspectorate under the Ministry of Transport and Communications, Lithuanian Railways

\* taxiing for take-off or to the apron after landing

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*Amendments to the Annex:*

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No [86](#), 1/2/2017, published in the Register of Legal Acts (TAR) on 6/2/2017 with ID code 2017-02180

## ANALYSIS OF THE CURRENT SITUATION IN THE LITHUANIAN TRANSPORT SYSTEM

### RAIL TRANSPORT

The Lithuanian railway network currently consists of 1 711.2 km of railway lines. Most track (99%) is 1 520 mm gauge, 1 435 mm gauge covering only 21.8 km (1%). The 1 520 mm gauge railway connects Lithuania with Latvia, Estonia, Belarus, Ukraine, the Russian Federation, and other countries of Eastern Europe and Asia, and the 1 435 mm gauge railway provides connections to Western Europe via Poland. Part of the existing Lithuanian railway network, Klaipėda-Vilnius section, belongs to the TEN-T North Sea-Baltic Core Network Corridor. Fig. 1.

Figure 1: TEN-T North Sea-Baltic Core Network Corridor



Source – [http://ec.europa.eu/transport/themes/infrastructure/TEN-T-guidelines/maps\\_en.htm](http://ec.europa.eu/transport/themes/infrastructure/TEN-T-guidelines/maps_en.htm).

The TEN-T North Sea-Baltic Core Network Corridor includes the Rail Baltica section. In December 2003, the Rail Baltica project was identified by the TEN-T provisions as one of the six cross-border projects that were lacking and was recognised by the Lithuanian Parliament as a project of particular national importance. The main objective of the Rail Baltica project is to

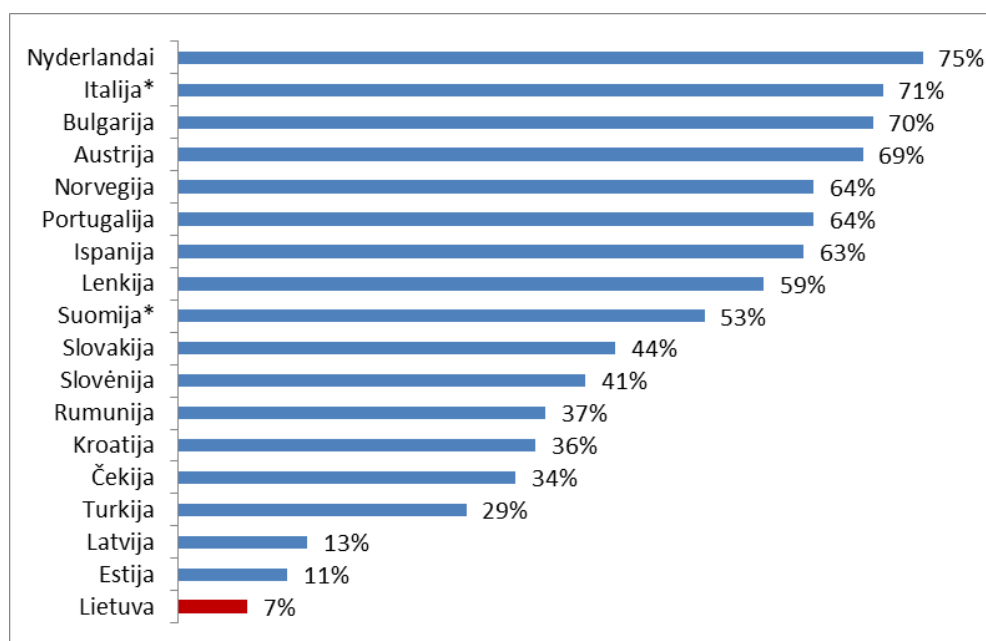
ensure efficient rail transport in the north-south direction. The implementation of the project will also help to make rail transport more attractive than road transport, which currently holds the largest market share in passenger and freight transport in the north-south direction. Efficient rail transport will improve Lithuania's accessibility, enable convenient and quick access to the administrative, cultural and political centres of countries in the Baltic Sea region and allow the implementation of the European Union ('EU') TEN-T policy objective to connect the capitals of EU Member State (in Lithuania, to include the new high-speed European track from Kaunas to Vilnius). The Rail Baltica project also contributes to the EU Baltic Sea region's priority 'Transport: improvement of internal and external transport link' by developing the link between the region's four countries: Poland, Lithuania, Latvia and Estonia.

The first stage of the Rail Baltica project executed in 2014 involved the construction of a 1 435 mm gauge track from the Lithuanian State border with Poland to Kaunas. The possibilities of freight and passenger mobility by rail in the north-south direction remain limited. In 2012, only 1.6% of railway passengers travelled to EU countries, the remainder travelling to Russia, Belarus and other countries in Eastern Europe. Freight was carried mainly to countries with a track gauge of 1 520 mm, accounting for 98% of the total rail freight. For these reasons, the construction of the Rail Baltica line from Kaunas to the State border with Latvia must be continued.

Lithuania's present railway infrastructure does not meet the requirements for a modern railway transport system owing to wear and technical characteristics. The basic technical parameters of the railway infrastructure (e.g. curve radii) limit speeds on many sections. Another shortcoming of the rail transport infrastructure is the shortage of double-track lines throughout the network. In 2012, double-track railways accounted for only 22% of the entire Lithuanian railway network, which prevents trains running in opposite directions to pass each other or trains running at lower speeds from being overtaken. In the Lithuanian railway network, priority is given to passenger trains, which means that on sections with mainly single tracks, freight trains must frequently stop at stations to make way for passenger trains, or freight train traffic is organised only at night. The TEN-T guidelines provide for the electrification of the network's railway sections. Electrification enables a transition from fossil fuels to renewable energy sources. From the point of view of sustainable development, the network's low electrification rate is therefore a major problem of the Lithuanian railway network. Only 6.9% of the Lithuanian railway network was electrified in 2012, which is the lowest electrification rate among all EU Member States (EU average is 52.7%).

At present, the Lithuanian railway network has only two electrified railway sections for regional passenger transport: Naujoji Vilnia-Vilnius-Kaunas and Vilnius-Trakai. The operational length of electrified railway lines is 122 km, of which 4.98 km are single-track lines and 117.02 km are double-track lines.

Figure 2: Share of electrified railway lines in the country's total railway network, 2012



\* 2011 data

Source – Eurostat.

From the environmental standpoint, rail transport is currently inefficient owing to the aforementioned low electrification rate of the railway network and outdated rolling-stock fleet. The low rate of railway electrification means that most journeys are made by diesel trains, which cause much more pollution than electric trains. Moreover, the outdated rolling-stock fleet fails to ensure the development of railways as an environmentally friendly mode of transport because the current rolling-stock is far more polluting than new-generation rolling-stock. At present, the development of railway transport is limited by the social dimension, i.e. railway lines often run through towns or close to residential areas. This is a nuisance for residents due to the noise emitted by trains, which will in future require the installation of special equipment (e.g. noise barriers) in the railway infrastructure. This is particularly important if railway freight flows are to be increased.

Rail transport safety is measured as the number of fatalities and serious injuries per million train-km in a given year, the figure being well above the 0.31 EU average rate of danger posed by rail transport to the public. In Lithuania, this indicator stands at 2.0 and is the highest among all EU Member States. In terms of rail safety, the United Kingdom and the Netherlands are in the lead, with a ratio of just 0.1. Rail transport infrastructure (especially level crossings), which is currently the main cause of traffic safety problems in rail transport, therefore needs to be improved.

### ***Freight Transport***

In 2013, 49% of all freight was carried by rail in Lithuania. Oil, fertilisers and mineral and plant products were the goods with the largest share of domestic transport by rail (in 2013, this type of freight represented 94.5% of the total rail freight volume). Chemical and mineral

fertilisers account for as much as 46% of all imported freight, while crude oil and petroleum products amount to 22%. The flows of freight exports mainly depend on oil exports to Ukraine, Latvia and Estonia. The bulk of transit freight consists of Russian Federation freight transported in the direction of the Kaliningrad region and Belarusian freight carried through Lithuania (via Joniškis) to the Latvian seaports. Oil and petroleum products account for 48%, solid mineral fuels 14% and ferrous metals 10% of total freight transit. The following container trains are available for container transport on international routes:

- the ‘Viking’ train (Klaipėda-Minsk-Kiev-Ilyichevsk/Odessa);
- the ‘Saulė’ [Sun] train (Chongqing (China)-Antwerp (Belgium), transiting through Šeštokai (Lithuania) (in Šeštokai, containers are transferred from 1 520 mm gauge wagons to 1 435 mm gauge wagons and vice versa);
- the Vilnius Shuttle (Vilnius-Klaipėda-Vilnius);
- the ‘Merkurijus’ [Mercury] train (Kaliningrad/Klaipėda-Moscow);
- the ‘Šeštokai express’ (Poland-Lithuania-Belarus-Russia) (in Šeštokai, containers are transferred from 1 520 mm gauge wagons to 1 435 mm gauge wagons and vice versa);
- the ‘Nemunas’ train (Kaunas (Palemonas)-Vilnius (Paneriai)-Minsk (Koliadichi)-Vilnius (Paneriai)-Kaunas (Palemonas));
- the ‘Baltijos vėjas’ [Baltic Wind] train (Lithuania-Belarus-Russia–Kazakhstan).

In terms of freight transport by rail, it should be noted that most (98%) of all freight is transported to countries belonging to the 1 520 mm gauge railway network: the Russian Federation, Belarus, Poland, Ukraine, Latvia and Kazakhstan.

The main reason for this distribution is the aforementioned lack of effective links with countries to the south (the underdeveloped 1 435 mm gauge network). At present, the transshipment of goods south through Poland requires transshipment at the Šeštokai railway station. This increases the total length of time taken to transport freight and deprives railway transport of a competitive edge over road transport, which currently accounts for all freight transport to the countries of western and central Europe (via Poland).

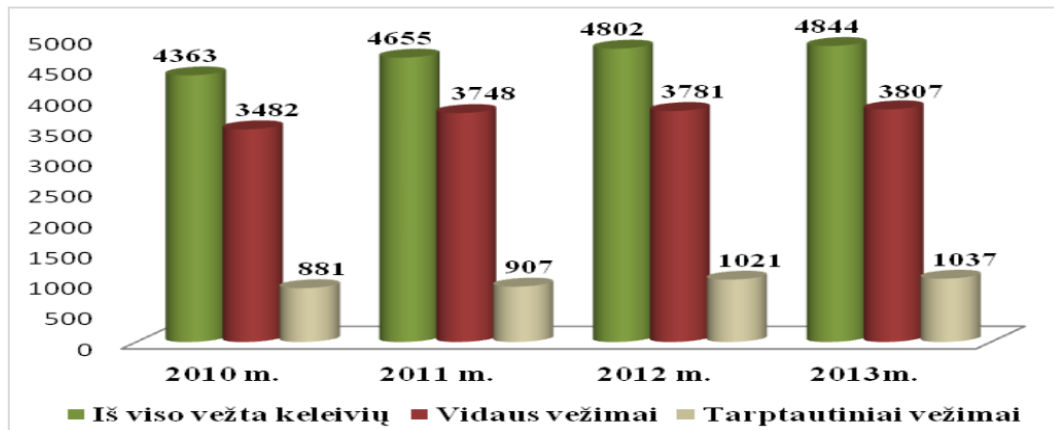
In order to increase the efficiency of rail transport interoperability with other modes of transport, the creation of public logistic centres (‘PLC’) has already been launched in Vilnius and Kaunas. The Vilnius PLC intermodal terminal will be located near the railway (the Vaidotai railway distribution station, the largest in Lithuania) and by the southern Vilnius bypass, which is yet to be built in the vicinity of this area. The Kaunas PLC intermodal terminal will be established by the main national roads (European main routes E85, E262 and others), close to the North Sea-Baltic Core Network Corridor and Kaunas International Airport. It is also planned to establish a PLC in Klaipėda to connect road, rail and maritime transport. According to the plan, the multimodal terminal of the Klaipėda PLC will be established next to Klaipėda Port, with connections to Klaipėda Port’s southern railway junction, thus connecting the TEN-T railway network to Klaipėda Port, which is part of the TEN-T.

### ***Passenger Transport***

In 2013, roughly 1% of all passengers were carried by rail in Lithuania. From 2008 to 2013, this figure changed little. Local passenger transport accounts for the major share (around 80%) of passenger transport by rail. International passenger transport by rail is less popular owing to the limited availability of international routes (the only destinations offered are Minsk, St. Petersburg and Moscow).

The most popular of the available destinations are Minsk and the transit route from Russia to the Kaliningrad region and back.

Figure 3: Breakdown of rail passengers by destination



Source – Lithuanian Ministry of Transport and Communications

Increased population needs and a relatively better network of road infrastructure have spurred rapid car ownership in the country. Residents choose cars as a means of travel for their faster speed and the possibility of door-to-door travel. The characteristics of Lithuania's rail transport infrastructure and passenger rolling-stock which is technically obsolete and unattractive prevent any increase in the speed of passenger trains. Consequently, rail transport is less attractive for passengers than much faster car transport. As illustrated by the example of the Naujoji Vilnia-Vilnius-Kaunas-Naujoji Vilnia route, rolling-stock renewal has a significant impact on passenger flows: after partial renewal of the rolling-stock, the number of passengers on this route increased by 18% in 2011.

Rail passenger transport has increased with the partial renewal of the rolling-stock fleet, but much of it is still obsolete, making rail transport less attractive. Although part of the fleet has been renewed, only 25% of passenger railway carriages were newer than 10 years old, 12% were 11 to 20 years old, and the remainder had been in service for more than 21 years in 2011. The lack of an efficient north-south link with other countries also has a major negative impact on rail passenger transport. At present, when travelling to European countries to the south, passengers need to change at Šeštokai Railway Station from carriages of one gauge to those of another gauge, which increases travel time, causes passengers additional inconvenience, and reduces the attractiveness and competitiveness of rail transport compared to road transport. Moreover, in the absence of adequate railway infrastructure, there are presently no convenient railway connections with Latvia, the movement of passengers in the north-south direction from Lithuania is limited, and transit in the said direction via Lithuania is impossible.

## ROAD TRANSPORT

Road transport and its infrastructure are one of the key aspects determining the efficiency of the transport system and having great relevance for the economic and social development of Lithuania given that, according to 2013 statistics from Statistics Lithuania, more than 50% of all freight and nearly 98% of passengers travel by road in the country. The share of road transport in the total added value generated by the transport sector amounts to 81.8%. These indicators are higher than the EU average and show the importance of the entire Lithuanian transport system and road transport to the national economy.

According to European Commission forecasts, car traffic on Lithuanian roads will increase 4%, goods vehicle traffic 15% and bus traffic 9% by 2020. An even greater growth, 1.5 to 2.0% annually, is envisaged for TEN-T roads.

Lithuanian roads are categorised as roads of national and local significance:

- Roads of national significance are made up of trunk roads, regional roads and local roads. They are exclusively owned by the State and are used and disposed of under trust by State-owned enterprises established by the Ministry of Transport and Communications to oversee roads of regional significance. The total length of roads of national significance in Lithuania is 21 242 km, of which: trunk roads – 1 746 km; regional roads – 4 929 km; local roads – 14 567 km. According to calculations, roads of national significance carry about 80% of car axle loads.

- Roads of local significance comprise public and internal roads. In total, these roads measure more than 82 000 km. Public roads (and streets) of local significance are owned by municipalities, while internal roads are owned by the State, municipalities and other legal and/or natural persons.

The transport sector is experiencing pollution, traffic safety and security problems owing to obsolete or inadequate infrastructure, congestion, especially in urban areas, insufficient interoperability between different modes of transport, inadequate assessment of the external costs of transport (State regulatory measures force those responsible for the impact to pay for the damage caused or losses inflicted) and one of the oldest car fleets in Europe (the official average age of the Lithuanian car fleet is 15 years, compared with 8.5 years in Europe). Another consequence of the high level of car ownership is a high traffic-related death rate; according to 2013 data, Lithuania is ranked sixth in Europe in terms of this indicator.

Lithuania lags behind west Europe in terms of speed, traffic safety, security and convenience. This limits mobility on the North Sea-Baltic Core Network Corridor, which requires further modernisation and development of the TEN-T roads and access roads and their effective integration into the European TEN-T. The Lithuanian TEN-T does not currently meet some of the TEN-T requirements, as it does not satisfy the technical parameters and lacks infrastructural components, such as bypasses, efficient links and intelligent transport systems.

Using the resources of the Cohesion Fund, a total of 42 km were built by 2012, but most of major cities connected to the TEN-T still lack bypasses, which results in large transit and freight vehicle flows in cities, lower speeds as well as traffic safety problems within the TEN-T.

Although Lithuania is rapidly developing single-mode (road) distribution warehouses and terminals, which are mostly referred to as logistics centres, effective interoperability between road and rail transport has not been achieved within the TEN-T. Conditions for the interoperability of different modes of transport are being established to ensure adequate integration of Lithuania into the overall TEN-T. To that end, the projects ‘Design and construction of an intermodal terminal at the Vilnius public logistics centre’ and ‘Design and construction of an intermodal terminal at the Kaunas public logistics centre’ will be implemented by 2015. They are being implemented by Lithuanian Railways, with financial support from the EU Cohesion Fund. These projects are consistent with one of the key EU and Lithuanian objectives of reducing the share of freight carried by road transport and increasing freight transport by rail or inland waterways, being more environmentally-friendly.

The passenger transport sector is characterised by ineffective interoperability between long-distance and local buses, railways and air transport. As a result of an unattractive inter-city and urban public transport system, car ownership reached 541 cars per 1 000 residents in 2012, and in the major cities of the country the indicator is approaching 600. Cycling accounts for merely 0.5-1% of all trips to work in Lithuania (EU average is 5%). Systems that promote sustainable mobility (pedestrian and bicycle infrastructure) are underdeveloped.

Inefficient urban transport systems, which no longer meet the needs of a modern population, the insufficient quality of suburban transport and poor accessibility of rural transport services make public transport less attractive. 81% of public transport vehicles are older than 10 years, making them somewhat unattractive to higher-income residents, and are poorly adapted for persons with special needs. Many bus fleets are owned by municipalities, which have no financial resources to renew them. Due to the lack of coordination between suburban and urban transport, suburban residents also prefer personal transport for everyday journeys. The increasing numbers of cars, worsening traffic conditions, reduced street capacity, inflexible working hours of offices and uncoordinated traffic management create greater congestion not only in the central parts of cities, but also on main streets and urban access roads. Not all of the country’s major cities have bypasses, which is why they are crossed by transit flows of cars and trucks. Park-and-ride systems as well as other solutions for the integration of intercity and city transport (intercity railway and bus connections and their connections to city transport) are underdeveloped. Failure to improve the organisation of public road traffic and the condition of public transport will further discourage the public from changing their urban mobility habits, while the resulting growth in private car flows may seriously damage the quality of ambient air in Lithuania’s cities, exacerbate negative environmental impacts and accelerate road deterioration.

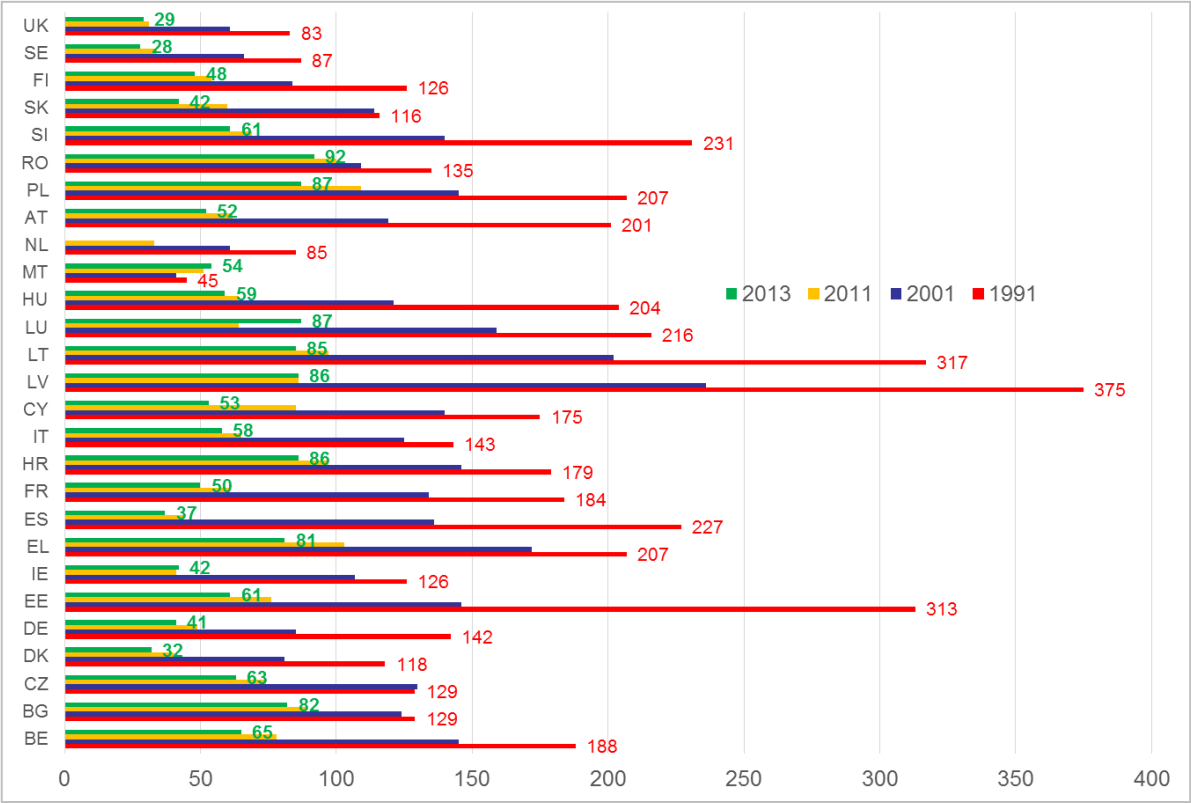
The lack of any regional or district coordinated transport strategies has slowed down the development of the transport network, especially in the country’s outermost regions, and has led to social and environmental consequences: some of Lithuania’s rural or suburban residents are isolated from larger job-generating centres or can reach them only by car (which presents a major problem for low-income residents or the unemployed); the growing flow of road transport causes environmental problems in cities (environmental pollution, noise). Moreover, small and medium-sized towns are insufficiently integrated into national and trans-European transport



networks, intermodal transport opportunities are underutilised, and increasing car ownership makes public transport less competitive. As demonstrated by the experience of using EU Structural Funds in 2007-2013, businesses as well as residents are rapidly settling alongside the reconstructed roads of local, regional and district significance and developing more diverse activities (rural tourism, manufacturing and service firms). A good road network therefore constitutes the foundation of regional development, while connections with the TEN-T are an important basis for the growth of regional centres.

The last five years have seen a major breakthrough in road safety. Lithuania is one of the few countries to have achieved the objective laid down in the Verona Declaration as well as in the White Paper 2011 to halve the number of fatal accidents over a period of 10 years. According to the dynamics of this indicator, Lithuania is one of the leading EU countries, yet the number of fatalities on Lithuanian roads, in relative terms, is still double the EU average.

Figure 4: Number of fatalities on roads per million inhabitants, 1991-2013



Source – Statistics of EU Member States

One of the causes of road fatalities is the poor condition of some roads as well as the lack of modern traffic safety and traffic control equipment. 32% of Lithuanian regional roads are in a poor or very poor condition, while the scale of current road resurfacing (1.3% of the total road length in 2009) is five times below the optimum level. EU Directive 2008/96/EC provides for the introduction of traffic safety enhancement measures throughout the road infrastructure network.

The introduction of road safety measures has significantly reduced the number of black spots in Lithuania over the last five years: from 270 in 2006 to a mere 43 in 2014 (locations where 4 or more recorded traffic accidents have occurred in a 500-metre route over a 4-year

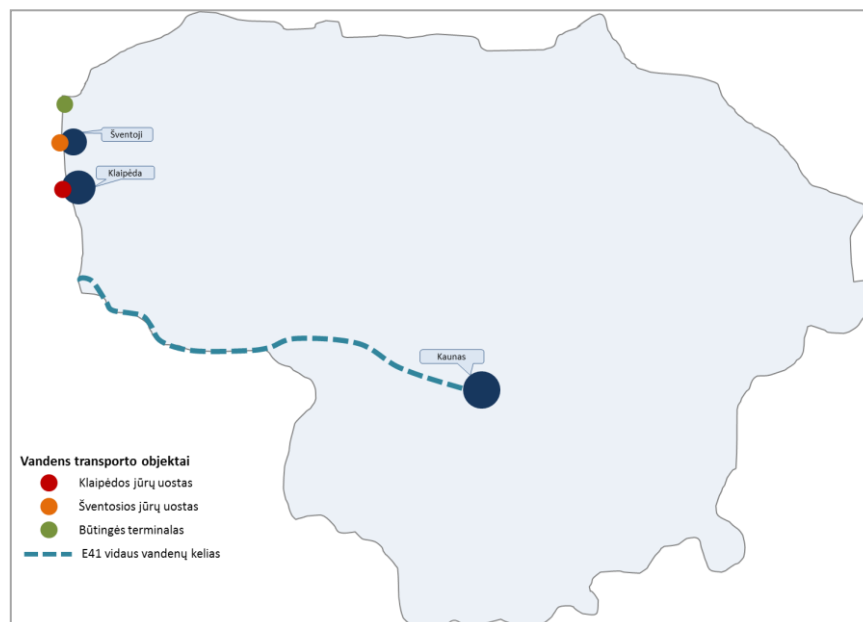
period), according to official data. Since 2007, 165 km of pedestrian and bicycle paths have been built alongside regional and local roads of national significance. In total, 65 km of paths were laid along roads of national significance between 2007 and 2012 (the total length increased from 1 085 to 1 250 km), which has significantly improved road safety: in 2007 there were 235 pedestrian and 73 cyclist fatalities, falling to 137 and 26 respectively in 2011. However, the environment on roads is not safe enough for road users, and effective engineering and intelligent traffic safety measures are required.

In Lithuania, 92% of all pollution in the transport sector comes from road transport. Of that amount, passenger transport accounts for two-thirds and freight transport one-third of the pollutants. The negative environmental impact of road transport could be reduced through the use of alternative and cleaner transport, but there is currently a shortage of measures to stimulate the development of alternative and more environment-friendly transport such as electric cars.

## MARITIME TRANSPORT

Lithuania has three main facilities where activities related to maritime transport are carried out: Klaipėda Port, Šventoji State Seaport (hereinafter, ‘Šventoji Port’) and Būtingė Terminal.

Figure 5: Water transport facilities



Klaipėda Port is located in the Klaipėda city municipality and occupies an area of 1 423 ha. Water bodies (the Curonian Lagoon and the Klaipėda strait) account for approximately 881 ha of the Port’s area, and land 542 ha.

Klaipėda Port is located in an environmentally sensitive area. The Curonian Spit peninsula, separating the Curonian Lagoon from the Baltic Sea, is in the western part of the port. The Curonian Spit is home to the Curonian Spit National Park, which includes reserves and the protected areas of the Natura 2000 ecological network. In 2000, the Curonian Spit National Park became a UNESCO World Heritage Site. On the southern side of the Curonian Lagoon, the Klaipėda Port area borders on the Curonian Lagoon Biosphere Polygon, which is a European

Ecological Network Natura 2000 site. The Smeltė Botanical Reserve for the protection of rare plant habitats is located in the area of Klaipėda Port, in the eastern part of the Smeltė peninsula. In the southeast, adjacent to Klaipėda Port's land area, there is Klaipėda city's third water extraction site as well as a vacant plot of State-owned land. The Kiaulės Nugara island, covering an area of 17.6 ha, is in the southern part of the Port's water area. To the east and north, the Port borders on Klaipėda city's residential and commercial-industrial districts. The Giruliai forest is located in the north-eastern part of the Port. Against this background, it is crucial to minimise the environmental impact of the Port.

Given the geographical location and natural environment of Klaipėda Port (immediate proximity to the sea coast, the absence of any shelter from the sea for ships entering the port, possible strong currents from the Curonian Lagoon to the sea, particularly during the springtime thaw, and prevalent western winds) as well as its infrastructure, the present conditions for navigation in different parts of the port are uneven. The areas of the Port with the most difficult navigation features include:

- the entrance channels and gate;
- the northern part of the Port from the gate to the turning basin at quays No 7-9;
- the turning basin place at quays No 7-9;
- the Port's internal channel from quays No 10-65;
- the turning basin at quays No 66A-71;
- the Port's internal channel from quays No 72-89;
- the turning basin at quays No 90-106;
- the navigation channel from Malkū Bay between quays No 107-120;
- the Malkū Bay water area.

Owing to its limited width and insufficient depth, Klaipėda Port gate is always a place of increased risk for ships. Entering through this gate is dangerous for big vessels in the event of fast currents, side wind, big waves or ice-drift. The speed of the current at the gate may reach 4 to 4.5 knots. This flow rate occurs during the springtime thaw or after long periods of strong western winds (storms), when a lot of sea water reaches the Curonian Lagoon. A perilous situation occurs at the Port gate when strong south-western, north-western and northern winds blow at a speed exceeding 15 m/s. In that event, the speed of drift for large ships may reach 3 to 4 knots, which means that a ship sailing at a speed of approximately 10 knots may drift at a dangerous angle of 120°-150°. With western winds, sea waves outside the port gate may be as high as 4-5.5 metres. This poses a danger for ships entering the Port, impairing ship control, and when leaving the Port, a sudden increase in resistance in the presence of crosswinds can lead to high ship drift.

Quays No 5 and 6 of Klaipėda Port pose a danger to large ships owing to the need to turn the ship at a 30° angle, while stopping is also dangerous when ships have to turn around in the turning basin at quays No 7-9, where large ships are impacted by the wind, current and ice-drift. A dangerous situation is created in the event of strong currents with a sea direction of about 320°-340° and a south-western or western wind, pushing the ship alongside quays No 1-4.

In view of the direction in which ships currently sail, large ships entering Klaipėda Port sail towards to the quays opposite. This is not safe because it would be difficult to change the course in an emergency due to the poor manoeuvrability of large vessels.

A liquefied natural gas (LNG) terminal, which is of crucial significance to Lithuania's energy security, has been built within the Port, but the current port infrastructure is unable to ensure traffic safety for large ships serving the terminal.

As a result, the LNG terminal's service ships entering the port territory could crash into the port's quays and cause a serious accident. It is therefore necessary to reconstruct piers and to improve (deepen and widen) the port's entrance channel, to change the direction of ships and to obtain a dredger in order to ensure, in a timely and efficient manner, that the Port's design depths are maintained, especially in terms of the safety of large ships.

Businesses associated Klaipėda Port's employ over 23 000 people, and the Port generates 4.5% of Lithuania's gross domestic product. Lithuania is in intense competition for cargo flows with the other ports on the eastern Baltic coast. According to the data of the Klaipėda port, the volumes of freight handling at the Klaipėda and Būtingė Terminals are larger than those in the neighbouring ports (see the table). The main competitors for Klaipėda Port are the northern ports of Russia.

Table: Stevedoring in Baltic seaports

Stevedoring	in 2013
Primorsk	63.82
Ust-Luga	62.64
St. Petersburg	57.97
Klaipėda and Būtingė Terminal	42.39
Riga	35.47
Ventspils	28.77
Tallinn	28.25
Vysotsk	16.16
Kaliningrad	16.67
Liepāja	4.84
Vyborg	1.51

Source: Klaipėda Port Authority

According to data of the Klaipėda Port Authority, 42.39 million tonnes of cargo were transshipped in the Klaipėda and Būtingė Terminals, of which 25.7% was accounted for by fertilisers, 21% by petroleum products, 13.8% by ro-ro freight, 13.7% by containers and 9.4% by agricultural products. Other types of cargo account for 11% of total cargo. It should be noted that stevedoring at Klaipėda Port depends on geopolitical factors and the global economic situation, which means that growth in the global economy increases cargo flows accordingly, while periods of economic recession (e.g. in 2009) reduce stevedoring volumes. It is therefore very important to create and develop port infrastructure that would allow cargo flow to be diversified and interoperability with other modes of transport, namely railways and roads, to be improved.

Klaipėda Port is a unique transport hub in Lithuania, combining maritime, road, rail and inland waterway transport. The port is capable of receiving Post-Panamax vessels. Successful combined transport solutions (shuttle trains) have been implemented, yet freight-distributing railway stations and the access railway network remain underdeveloped. Specialised terminals have been set up for handling individual groups of cargo and ITS solutions are being implemented. However, those terminals still need to be effectively integrated into the country's transport network to ensure attractive interoperability for freight carriers in order for greater volumes of cargo to be carried by rail. The port is linked to the North Sea-Baltic Core Network Corridor, yet interoperability is still not effective enough. There is a need to develop a network of access roads, especially bypassing residential areas. Access roads also need to be modernised within city boundaries in order to ensure safety and to minimise the impact on the environment and population.

Klaipėda Port also provides services to passengers. Passenger flows have been on the rise over the last decade: as reported by the Klaipėda Port Authority, 345 300 passengers were carried in 2013 (a 58% increase as against 2003). 65 cruise ships carrying 32 700 passengers called at the port in 2013.

Šventoji Port currently covers an area of 15 ha, including a 7 ha internal water area. The port was allocated an external water area of 209 ha at sea by Resolution No 1197 of the Government of the Republic of Lithuania of 30 September 2009 determining the boundaries and area of the land and outer water area assigned to Šventoji state seaport and transferring the land and the water area assigned to the Port for management, use and disposal by the State Enterprise Klaipėda State Seaport Authority, but the Port does not have a reserve area. A detailed plan for Šventoji Port has already been drawn up under which post infrastructure will be established. Three stages of reconstruction of the Šventoji port are planned. First, the 4 m deep internal port will be established and piers will be constructed. The number of mooring places will be increased, as necessary. The small port will thus be reconstructed. A prospective phase is also foreseen: the external port will be deepened to 9 m, piers will be extended and the depth of the entry will be 7 m.

Although Šventoji Port will have a number of functions, one land plot with separate interior parts is planned. 0.76 hectares of land owned by Palanga Town Municipality in the vicinity of the port is to be connected to the available land plot of the Šventoji port. If sufficient demand exists, a total of 500 mooring places could be set up at the port's quays for ships of 6-15 m in length.

During the second phase, the plan is to install a mooring place in the outer port for support vessels of various institutions, i.e. the Navy, environmental protection and border guard authorities. There are also plans to establish an area to be used to set up a small repairs shop for pleasure craft as well as a boathouse for pleasure and sports craft. At the entrance to the inland port, there is to be a border checkpoint with a building and a quayside for receiving ships, and to the west a quayside for fishing vessels and a building for recreational fishing. At the request of Šventoji fishermen, a stationary quay is planned to reduce swell. There are plans to build a filling station for ships on the pier, with a nearby bilge water and ship wastewater collection station. It

will be possible to enter Port territory on the south side from Prieplaukos gatvė, next to which the main car park will be built to accommodate most of the cars, while the rest will be parked at the port's other facilities. The port will have restrooms, showers, laundry rooms and a medical station.

In the southern part of the Port there is to be an area for a sailing school and a boatshed, and there are plans to build the Port's administrative buildings and the harbour master's office, while another section of the plot will be used for commercial buildings. Overall, the area will have three slipways, two of them in the southern part.

Once fully implemented, Šventoji Port will be ready to receive tourist, fishing and recreational vessels and Būtingė Terminal service ships.

## **INLAND WATERWAY TRANSPORT**

Lithuania has 915.1 km of inland waterways, 820.1 km of which are of national significance, 60 km of local significance and 35 km prospective in nature. The inland waterway running along the Nemunas river and the Curonian Lagoon, E-41 Kaunas-Jurbarkas-Klaipėda, is categorised as an inland waterway of international significance. In addition, part of the E-70 route of the E-60 coastal route from Gibraltar to St. Petersburg cross Lithuanian territory in the Curonian Lagoon. In 2013, 384.4 km of inland waterways of national significance (i.e. 46%) were being used, meaning that much inland waterway potential was unutilised.

The volumes of cargo carried on inland waterways has been growing with every year. In 2013, this mode of transport was used to transport 1 076 760 tonnes of freight, a 3.6% increase compared to 2011. All of this cargo is local, and most of it (about 90%) is shipped along the Curonian Lagoon (gravel, sand, cars). However, the volume of cargo transport by inland waterways remains very insignificant when compared with other modes of transport. The annual volumes of freight carried by road, which is far more damaging to the environment and human health than inland waterways, are 48 times larger. Thus, the interoperability of inland waterways transport with other modes of transport, i.e. maritime, road and railway, needs to be improved.

The number of passengers carried by inland waterways is also growing. Inland waterways vessels carried 1 901 100 passengers in 2013. This represented a 9.7% increase over 2011. Passengers ferried to Neringa account for the lion's share of all inland waterways transport passengers. In 2013, this route accounted for 97% of all passengers carried by inland waterways. Because of the popularity of this route, passenger transport by inland waterways transport exceeded both air and maritime transport, but was 2.5 times less than passenger transport by rail in 2013.

The potential of inland navigation can only be fully exploited if inland waterways are in good condition and better connected to other modes of transport, and if missing links are created and obstacles removed. Lithuania currently has no effective inland waterways links with other modes of transport, and river depths are not consistent with the required standards, meaning that transport by inland waterway is unable to compete with other transport sectors.

2013 saw the first important step towards improving the inland waterways infrastructure because funding for the construction of the Marvelė cargo wharf in Kaunas was approved.

Construction of this wharf will promote inland waterways transport and ensure that the E41 Kaunas-Klaipėda inland waterways route of international significance, stretching along the Nemunas river and the Curonian Lagoon, is used effectively. The loading of cargo onto and off vessels and cargo warehousing (storage) activities will take place at the Marvelė cargo wharf.

Passenger and freight transport by inland waterway is three times less polluting than road transport, and the EU is therefore actively promoting the development of inland waterways transport. In 2012, the European Commission presented new inland waterway navigation and nature protection guidelines. They stress that, in Natura 2000 sites, new developments are not ruled out and that new development projects are acceptable, but they must guarantee a sufficient level of nature protection.

Compared to other modes of transport, inland waterway navigation is not only a more environmentally friendly but also a safer means of transporting passengers and goods. The inland waterways accident rate is low: no fatalities in inland waterways navigation were recorded in 2012, while 101 deaths per one million residents were recorded in road transport and 20 deaths in railway transport nationally in the same year.

The development of inland waterway transport is an ongoing priority for Lithuania, and is included in the 2007-2013 programming period for support from EU Structural Funds. During that period, the construction of a cargo wharf was launched in Kaunas, which is expected to contribute to the development of cargo transport by inland waterway. Considering that the potential for passenger and freight transport has not yet been exploited, and bearing in mind its low impact on the environment, the development of inland waterway transport infrastructure should continue so that missing links can be established and interoperability with other modes of transport improved.

## **AIR TRANSPORT**

Lithuania has three international airports, managed by a single state-owned company, which belong to the TEN-T: Vilnius Airport belongs to the main TEN-T, while the international airports in Kaunas and Palanga are part of the general TEN-T. The country also has 25 aerodromes, most of which require reconstruction. Vilnius International Airport mainly targets business and transit passengers, Kaunas International Airport focuses on budget airlines, while Palanga International Airport focuses on tourist flows.

In 2013, the number of incoming and outgoing passengers in Lithuanian airports increased by nearly 10% compared to 2012, rising to almost 3.5 million. The number of flights grew by 3.6%, while the volume of freight and post transport increased by 11%. Vilnius International Airport handled 2.657 million passengers in 2013, a 20% increase against 2012. The fastest growth at Vilnius airport was recorded by freight and passenger transport, but its development is limited by the close proximity of residential areas. Moreover, because of the location of the airport, some residents of Vilnius are affected by the noise and pollution of aircraft taking off, landing and manoeuvring. The airport has implemented measures to mitigate the negative effects of aviation, but with the rising flow of passengers, these measures may prove insufficient.

Kaunas International Airport handled 695 500 passengers in 2013, down by 16% against 2012. This decrease was caused by the fact that Ryanair, which operates at the airport, had cut the number of routes it flies. Kaunas International Airport is also located near residential areas, so it also poses a problem of noise and aviation pollution. Despite the recent drop in passenger flows, the need for noise reduction measures remains relevant.

Palanga International Airport offers regular flights to Copenhagen (Denmark), Oslo (Norway) and Riga (Latvia) as well as the connecting flights of SAS and airBaltic airlines. In the summer season, RusLine airlines operates regular flights to Moscow. In 2013, Palanga Airport handled 128 000 passengers (a 0.2% decrease compared to 2012). In 2007, the airport achieved compliance with the Schengen requirements, its runway was modernised and the passenger terminal was expanded.

## **POSTAL SERVICES**

The only provider of the universal postal service ('UPS') in Lithuania, Lithuanian Post (a public limited liability company), operated a network of 817 UPS access points as at 1 July 2014: 665 stationary post offices (194 in urban and 471 in rural areas), 21 postal branch offices (18 in urban and 3 in rural areas) and 27 mobile postal offices provide services through 131 rural UPS access points.

Liberal market conditions increase competition in cities, where particularly low service charges are available; by contrast, in rural areas postal services are available from a single UPS provider, which is obliged to provide the UPS throughout Lithuania. As a result, the UPS provider, which has lost its market share in cities and is providing services only in rural areas, may be operating at a loss. Moreover, the excessive postal network infrastructure owned by the UPS provider has resulted in higher costs of UPS provision as well as a need to cut jobs. Its activities therefore need to be optimised and new technologies introduced,

To promote the dissemination of information in rural residential areas and to enable the rural population to subscribe to periodicals at affordable delivery prices, the UPS provider has been obliged, as of 1 January 2012, to deliver periodicals to rural subscribers at a price that may not exceed the rates fixed by the Lithuanian Government. The applicable legislation provides for a mechanism to compensate the service provider for the possibly loss-making services of delivering periodicals to rural subscribers from the State budget of Lithuania.

In the context of globalisation and convergence, special attention should be paid to making sure that postal items meet the safety and service provision quality requirements and standards and that the negative environmental impact of various processes are assessed and reduced. The processes of transporting and sorting postal items must be optimised, and all postal service access points must be computerised. Given the rapid development of information and communication technologies, there is a need to seek out new services or ways of providing them that would meet the changing requirements of UPS customers, while regular postal services must gradually be geared towards electronic services.

The established National Information System for electronic postal item delivery via the postal network helps in implementing the one-stop-shop principle and enables public authorities



and bodies to exchange electronic postal items amongst themselves as well as with natural and legal persons. This will gradually reduce the circulation of paper documents as well as non-deliveries and allow documents to be signed electronically. The rising number of electronic postal items will reduce demand for regular postal services as postal service customers will be sending electronic postal items. While regular postal services will decrease, there will gradually be an increase in the volumes of postal items delivered owing to the development of e-commerce nationally and internationally.

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*Supplemented with an annex:*

No [1443](#), 15/12/2014, published in the Register of Legal Acts (TAR) on 23/12/2014 with ID code 2014-20606

**Amendments:**

1.

Resolution of the Government of Lithuania:

No [1443](#), 15/12/2014, published in the Register of Legal Acts (TAR) on 23/12/2014 with ID code 2014-20606 amending Resolution of the Government of the Republic of Lithuania No 1253 of 18 December 2013 approving the National Transport Development Programme for 2014-2022

2.

Resolution of the Government of Lithuania:

No [86](#), 1/2/2017, published in the Register of Legal Acts (TAR) on 6/2/2017 with ID code 2017-02180 amending Resolution of the Government of the Republic of Lithuania No 1253 of 18 December 2013 approving the National Transport Development Programme for 2014-2022