

MARKET STRUCTURE ANALYSIS FOR INTERNATIONAL ROAD FREIGHT TRANSPORT IN LITHUANIA

Ramūnas Palšaitis Darius Bazaras





Publications 6:2012

MARKET STRUCTURE ANALYSIS FOR INTERNATIONAL ROAD FREGHT TRANSPORT IN LITHUANIA

C.A.S.H. project report

Ramūnas PALŠAITIS Darius BAZARAS © Ramūnas Palšaitis, 2012 © Darius Bazaras, 2012 © Vilnius Gediminas Technical University, Saulėtekio al. 11, LT–10223 Vilnius, Lithuania © University of Turku Turku School of Economics, FI-20014 University of Turku, Finland

> Published by C.A.S.H. Turku School of Economics, University of Turku FI-20014 University of Turku, Finland www.cash-project.eu

All rights reserved. No part of this publication may be produced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher. Whilst all reasonable care has been taken to ensure the accuracy of this publication, the publishers cannot accept responsibility for any errors or omissions.

This publication has been produced with the assistance of the European Union. The content of this publication is the sole responsibility of the authors and can in no way be taken to reflect the views of the European Union.

ISBN 978-952-249-217-3 (PDF) ISBN 978-952-249-093-3 (PRINT) 656.1

EXECUTIVE SUMMARY

The publication presents a short overview of the development of Lithuanian transport system and the results of the survey carried out in Lithuania in 2011. The survey is part of Activity 3.4 within the framework of the international project C.A.S.H. (Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region) and is related to the impact of market structure on safety and security. The survey included interviews with 20 experts representing large transport and logistics companies, public authorities and non-governmental transport organisations, i.e. all relevant stakeholders. The survey is precise and reflects the current situation. One of the main advantages of this document is presentation of experts' opinion; afterwards it could be used as the basis (database) for other surveys.

The focus during the survey was given to the following topics:

A. Market analysis for the international HGV road freight transport in the Baltic Sea Region (BSR).

- B. Assurance of traffic safety in border-crossing HGV traffic.
- C. Traffic safety and security in border crossing freight transport.
- D. Safety of drivers, trucks and/or cargo in the Baltic Sea Region.

The above topics comprise general parts of the survey. It revealed the main trends of the market impact on traffic safety and security in the Baltic Sea Region and Lithuania. The key market changes include: availability of transport and logistics services, quality of operations, profitability and competitiveness of companies. The focus is given to the analysis of structural changes. During the analysis of the assurance of traffic safety the main problem requirements for carriers have been revealed, as well as ranking of non-compliance with the requirements. The ranking of non-compliance with the requirements was analysed with respect to the Lithuanian carriers, as well as the EU, Russian and Belorussian carriers in Lithuania. Comments of experts are provided with regard to all relevant issues. This allowed drawing a clear picture of the situation and revealing the law of cause and effect. The Paper also analyses the changes determining the increase/decrease of safety and security in certain country groups within the region. One of the most valuable results from the point of view of practical applicability is risk materialization points and time indicated by the experts.

During the survey the authors of the publication were assisted by the students of Transport Management Department of Vilnius Gediminas Technical University: Ieva Astrauskaitė, Karolis Blažonis, Armandas Čokovas, Ana Viktorija Krylova, Nerijus Paulauskas, Kęstutis Paškevičius, Deimantė Pranskutė, Raimunda Šalkauskytė, Rolanda Šarkauskaitė, Dominykas Vaišvila.

The abbreviation used in the survey: HGV – Heavy Goods Vehicle.

TABLE OF CONTENTS

EXE	CUTIVE SUMMARY	5	
TABLE OF CONTENTS			
LIST	LIST OF FIGURES		
1	LITHUANIAN TRANSPORT SYSTEM	. 11	
2	THE LITHUANIAN TRANSPORT SYSTEM DEVELOPMENT STRATEGY	15	
3	INSTITUTIONS CONTROLLING ROAD TRANSPORT	27	
4	METHODOLOGY OF THE SURVEY	.34	
5	PART A. MARKET FOR INTERNATIONAL HGV ROAD FREIGHT TRANSPORT IN THE BSR	. 36	
6	PART B. TRAFFIC SAFETY IN BORDER-CROSSING HGV TRAFFIC AND ITS ENFORCEMENT	.49	
7	PART C. TRAFFIC SAFETY AND SAFETY CULTURE IN BORDER-CROSSING FREIGHT TRANSPORT	60	
8	PART D. SECURITY OF DRIVERS, TRUCKS OR CARGO IN THE BSR	66	
9	CONCLUSIONS	72	
REF	ERENCES	77	
ANN	IEX 1	79	
ANN	IEX 2	82	
ANN	IEX 3	84	
ANN	IEX 4	86	
ANNEX 5		89	
ANN	ANNEX 6		
ANNEX 7			
ANN	IEX 8	96	

ANNEX	9	99
ANNEX	10	102
ANNEX	11	105
ANNEX	12	107
ANNEX	13	110
ANNEX	14	113
ANNEX	15	115
ANNEX	16	117
ANNEX	17	119
ANNEX	18	120
ANNEX	19	125

LIST OF FIGURES

Figure 1. TEN-T network in Lithuania11
Figure 2. GDP product generated by transportation, storage and
communications12
Figure 3. Goods transport by modes 2006–2010 13
Figure 4. E-roads 14
Figure 5. Number of Permit (Licence) Holding Companies 28
Figure 6. Number of freight vehicles licences
Figure 7. Lithuanian Road Transport: Traffic safety
Figure 8. Map of Black Spots in Lithuanian on state roads in 2011 32
Figure 9. Types of Heavy Goods Vehicles (HGV) under analysis 35
Figure 10. Breakdown of answers to Question A.1. Assess the
overall availability of international HGV road transport
capacity from the shipper's perspective
Figure 11. Breakdown of answers to Question A.2. Assess the
level of operational quality in HGV road transport
Figure 12. Breakdown of answers to Question A.3. Assess the
profitability of companies engaged in the activity of the
international HGV road freight transport
Figure 13. Breakdown of answers to Question A.4. Assess the
competitiveness of companies engaged in the
international HGV road freight transport
Figure 14. Breakdown of answers to Question B.1. In view of
traffic safety, assess the level of the regulatory
framework of the international HGV transport
Figure 15. Breakdown of answers to Question B.2. How the
regulatory framework for traffic safety of the
international HGV transport is enforced51
Figure 16. Ranking No. 1. Non-compliance detection in
Lithuanian trucks and drivers operating in Lithuania.
Non-compliance ranking53
Figure 17. Ranking No. 1 Requirements imposed for Lithuanian
trucks and drivers operating in Lithuania. Enforcement
ranking54
Figure 16. Ranking No. 1. Non-compliance detection in Lithuanian trucks and drivers operating in Lithuania. Non-compliance ranking

Figure 18.	Ranking No. 2. Non-compliance detection in trucks and drivers from other EU countries operating in Lithuania. Non-compliance ranking	54
Figure 19.	Ranking No. 2. Requirements imposed for trucks and	
	drivers from other EU countries operating in Lithuania.	
	Enforcement ranking	55
Figure 20.	Ranking No. 3. Non-compliance detection in trucks	
	and drivers from Russia and Belarus operating in	
	Lithuania. Non-compliance ranking	55
Figure 21.	Ranking No. 3. Requirements imposed for trucks and	
-	drivers from Russia and Belarus operating in	
	Lithuania. Enforcement ranking	56
Figure 22.	Breakdown of answers to Question C.1. Please	
-	assess the overall road safety situation	50
Figure 23.	Breakdown of answers to Question C.2. Please,	
U U	assess the level of safety culture in the international	
	HGV transport companies (in the industry as a whole)6	52
Figure 24.	Breakdown of answers to Question D.1. Please,	
0	assess the overall security situation related to	
	international HGV transport	36

1 LITHUANIAN TRANSPORT SYSTEM

Lithuania has been developing its transport system according to the national needs and pursuant to the common European transport development objectives and guides. These have been identified and amended in the Pan-European Transport Conferences, as well as by the Commission of the European Union and Economic Commission of United Nations (ECE). The keynote of the development is effective integration of the Lithuanian transport sector into the European and BSR transport system and transport services market complying with the common criteria for transport development in the EU.



Figure 1. TEN-T network in Lithuania

Source: Ministry of Transport and Communication of the Republic of Lithuania

Guidelines for the development of nine priority multimodal transport corridors in Central and Eastern Europe were approved at the Pan-European transport conference held in Crete (Greece) in March 1994. Lithuanian territory is crossed by the International corridor No 1 (motorway "Via Baltica" and railway line Tallinn–Riga–Kaunas–Warsaw) in the North-South direction, and by the International corridor (*Kiev–Minsk–Vilnius–Kaunas–Klaipėda*) 9 Branches 9B and 9D (Kaunas-Kaliningrad) in the West-East direction. The latter branches serve the main West-East transit flows between Russia, Belarus, Ukraine, other CIS countries and their Western trade counterparts through Klaipeda and Kaliningrad seaports. The 3rd Pan-European Transport Conference (Helsinki, 1997) summarized the results of complex joint international efforts directed towards specifying the longterm plans for further European transport development perspectives. These decisions reconfirmed the priority status at the Pan-European level of both transport corridors of international importance, crossing the territory of Lithuania. The focus in the Helsinki decisions was given to the better use of the existing infrastructure, "intelligent" management of traffic, networks and systems.

General Lithuanian transport statistics. In 2010, compared to 2009, the national gross domestic product (GDP) increased by 1.4 percent. In 2010, the gross value added generated by transportation and storage enterprises amounted to LTL 10.0 billion, telecommunication companies – LTL 1.8 billion at current prices. In 2010, the relative share of transportation and storage in the gross value added made up 11.7 percent, that of telecommunication 2.2 percent. In 2010, compared to 2009, the gross value added generated by transportation and storage enterprises increased by 7.2 percent, telecommunication companies 5.0 percent.



Figure 2. GDP product generated by transportation, storage and communications (in percent) Source: Lithuania Statistics department

In 2010, compared to 2009, income from sales of transportation and storage enterprises increased by 27.9 percent and made up LTL 16.7 billion at current prices (VAT excluded). In 2010, the most noticeable increase was observed in the income from sales in warehousing and support activities for transportation: against 2009, it rose by 52.1 percent.)





In 2010, the income from sales of postal and courier enterprises totalled LTL 280.9 million and, compared to 2009, decreased by 7.5 percent.

In 2010, the income from sales of telecommunication companies (J 61) totalled LTL 2.9 billion and, compared to 2009, decreased by 8.7 percent.

In 2010, the average gross monthly earnings in transportation and storage enterprises amounted to LTL 1843 million and, compared to 2009, increased by 0.6 percent; in telecommunications companies – LTL 3375 million and decreased by 4.4 percent.

In 2010, goods transport by all modes of transport amounted to 115.2 million tonnes, which is by 8.8 percent more than in 2009.

In 2010, compared to 2009, an increase by 25.1 percent was observed in goods transport by sea, oil pipelines 20.5, rail 12.6, inland waterways 9.7, road 0.04 percent, whereas goods transport by air decreased by 20.4 percent. International goods transport by rail accounted for 49.1 percent of international goods transport. As for the national goods transport, road transport remained predominant and accounted for 67.2 percent.



Figure 4. E-roads. Source: http://logist.kiev.ua/trlithuania/

Road network. The Lithuanian public road network (state, local roads and urban streets) amounted to 82 100 km, including 21 313 km of state roads which are under the responsibility of Lithuanian Road Administration. The density of the road network is 125,8 km/100 km²; 87.7 percent of national roads are surfaced while the other are gravel roads. The length of the E-roads is 1 502 km.

The Lithuania road network includes:

- 1 738,5 km of highways, including 309 km of motorways (Vilnius–Kaunas–Klaipeda and Vilnius–Panevezys);
- 4 939 km of national roads;
- 14 590 km of regional roads

After Lithuania has become a full member of the EU on 1 May 2004, the country was provided opportunity to acquire the EU Structural Funds (Cohesion Fund, ERDF, the TEN-T and others). In 2007–2013 the support makes up 2.287 billion LTL.

Lithuanian transport sector from the total EU fund has received:

- 2004–2006: 33 percent;
- 2007–2013: 23 percent;
- In 2014-2020 it is planned to receive at least 33–40 percent.

2 THE LITHUANIAN TRANSPORT SYSTEM DEVELOPMENT STRATEGY

Mission of the Lithuanian transport system

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

Within the transport system, carriers, operators and other transport service providers operating under market conditions have to work in a competitive environment. Thus, in this transport segment, only market mechanisms and competition are the key catalysts of success and progress. Transport networks in Europe, like in other continents, serve as the engine of competitiveness within a common market artery. Therefore, the development and modernisation of transport infrastructure are one of the key measures ensuring the economic progress in elaborating the national economy development strategies and programmes of both the EU and individual Member States.

The forecasts of statistical indicators of the Lithuanian transport sector development and the development of economy and transport sector in Lithuania, as well as the SWOT analysis of the transport system have been the key factors and conditions used as the basis for drafting the Transport Development Strategy.

The economic development of Lithuania is and will be predetermined in the future by multiple internal and external factors. Lithuania's accession to the EU has created favourable conditions for the approximation of the overall economic level of the country to the EU's average.

Following the forecast of freight carriage volumes in Lithuania, out of various selected indicators (national income, GDP, average monthly wage, household income and spending, public property, consumer and producer price index, change in consumer goods and services) the GDP fit the best.

According the forecasts, during the period of 2010–2020 the domestic transport volumes, export, and import on the major motorways of the Central and Eastern Europe region will increase respectively by 50 percent.

SWOT analysis

The objective of the analysis is to foresee further goals and measures of the transport system development so that the Lithuanian transport sector could be competitive and meet the increasing needs of transport service markets both in Lithuania and in the EU.

Strengths:

- geographical situation of the country favourable for transit (two transport corridors of continental importance cross the territory of the country);
- ice-free Klaipėda Seaport with a modern container terminal and reconstructed 15-meter deep berths in the northern part of the port;
- well-developed road network and high quality maintenance and repair system;
- good political and economic relations with neighbouring countries;
- experienced scientific potential of the transport sector (an increasing number of Lithuanian scientists are being invited to contribute to the international programmes and projects);
- high level of motorisation;
- high-level transport specialists' training system;
- navigable Ro-Ro lines create favourable conditions for the development of maritime shipping, sea motorways and intermodal transport, as well as for the development of multimodal transport;

Weaknesses:

- physically worn out railway infrastructure and rolling-stock fleet;
- the network of electrified railway lines is under-developed;
- railway transport depends on freight transit policy of the Russian Federation;
- weak road and railway connections with EU countries via Poland;
- urban roads are not adjusted to the intensive traffic;
- no legal and organisational basis for the promotion of intermodal transport;
- no legal basis to regulate the mechanism for modernisation and development of transport infrastructure applying the principles of private-public capital partnership;
- quite high accident rate of road transport, especially of passenger cars;
- negative environmental impact of transport (particularly of motor transport);

- the depth of the water area of Klaipėda Seaport is lower than that of competitive ports;
- under-developed access roads to Klaipėda Seaport;
- under-developed inland waterway transport: the inland waterway ports do not meet the current requirements, and vessels are obsolete.

Opportunities:

- to adapt the EU legal standards and to use the EU financial aid for the development and modernisation of the Lithuanian transport sector;
- to establish public logistics centres in Kaunas, Klaipėda, Vilnius and, if necessary, in other regions (Panevėžys and Šiauliai), and to integrate the centres into the network of logistics centres of the Baltic Sea Region;
- to apply the principles of the private-public partnership (PPP) for financing the transport infrastructure;
- to develop the infrastructure of airports and to expand the transit of passengers and freight;
- to effectively establish positions in the transport service market of the continental Europe;
- to expand sea motorways and the related land transport systems;
- to adjust Klaipėda Seaport in order to satisfy the transit needs of Lithuania, the BSR countries, EU and third countries;
- to increase freight flows to the West–East direction in the Klaipėda Seaport by adjusting them to the economic interests of both Lithuania and the EU;
- to modernise traffic management and control systems, i.e. to maintain traffic safety and improve the throughput of streets and roads;
- to establish a modern North–South transport axis.

Threats:

- insufficient coordination of actions with the neighbouring countries when developing the trans-European networks;
- traffic jams in the largest towns of the country; growing crisis of public passenger transport due to overdue adaptation of the passenger transport to the rearrangement of production forces and the changed planned situation of cities, towns and settlements;
- growing competition in the neighbouring states resulting from the expansion of sea transport (ports, logistics centres, sea

motorways) sometimes does not comply with the interests of Lithuania;

- increasing traffic loads might result in more traffic accidents on the roads.

Goals of Lithuanian transport system development

The analysis of the state of the Lithuanian transport sector provided for the establishment of the following key long-term goals of the Lithuanian transport system development:

- to achieve the level of transport service quality and technical parameters of the old EU Member States;
- to effectively cooperate with the transport systems of the neighbouring countries; to become an integral link of the transport system (West–East) of the Baltic Sea Region.
- to enable people of Lithuania to conveniently and rapidly reach main cultural, tourism and commercial centres of Europe;
- to effectively serve the interests of Lithuania and the EU, and to increase competitive capacity in international markets.

Key directions of transport policy

The strategy includes the following key directions of the general Lithuanian transport policy:

- development of transport infrastructure;
- development of intermodal transport;
- development of information technologies and intelligent transport systems;
- transport development and environmental protection;
- traffic safety improvement in road transport;
- protection of transport infrastructure installations, freight and passengers;
- enhancement of administrative capacities.

Development of transport infrastructure

In the long-term perspective of the Lithuanian transport development, priority is given to the modernisation and development of the transport

system. Planning and development of the transport infrastructure are usually considered to be one of the key measures of transport policy in drafting transport development strategies and programmes both common for the EU and specific for individual EU Member States. In Europe, like in other continents, transport networks are the engine of competitiveness within a common market artery. Economic growth in any European country or high living standards are hardly imaginable without an efficient transport system and its appropriate infrastructure level providing for an optimal use of the opportunities offered by market economy. Researches reveal that the need for the development of the transport infrastructure in Lithuania is predetermined by two main factors. In the passenger transport, it is predetermined by a huge increase of the cars fleet. According to forecasts the number of cars in Lithuania will keep growing.

The increase in the demand for freight transport and its infrastructure is mostly predetermined by changes in the economy and production system in Europe. During the last 10 years, after the abolition of borders within the European Community, warehouses have been replaced by the renewable stock production systems. However, the missing links in the transport infrastructure network limit the potential for the development of new markets, and transport congestions on trunk roads reduce economic competitiveness of countries.

Modernisation and development of the Lithuanian transport infrastructure networks is a major task not only for Lithuanian but also of the EU institutions. Besides, implementation of the common interest EU projects is not possible without adequate planning and coordination of their implementation with neighbouring states. Therefore the decision-makers of the Lithuanian transport sector shall understand the common EU policy on transport infrastructure development. Implementation of the strategy for modernisation and development of transport infrastructure serving the national interests of Lithuania would be more efficient and less costly if the strategy is linked with the common EU transport infrastructure development policy.

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

The first priority is the development of trans-European transport network crossing the national borders, which would enable Lithuanian people to reach cultural, tourism and business centres of other EU States conveniently and with lowest time losses. It also comprises the establishment of a modern North–South axis, formed on the basis of the European transport corridor I (Tallinn–Riga–Kaunas–Warsaw) connecting the Baltic States with Poland. It would connect Vilnius and Warsaw and could satisfy the increasing trade and tourism needs of Lithuania and Poland, as well as the needs of other EU States. Another major project related to the expansion of the above-mentioned transport axis and implementation of the Rail Baltica project is construction of the railway line Tallinn–Warsaw via Kaunas. Thus, timely and proper drafting of all project documents is an immediate and strategically important task.

The second priority is modernisation and development of the West-East transport axis and its sustainable integration into the Trans-European networks of Denmark, Sweden, Germany and other EU States through the motorways of the Baltic Sea Region that are planned to be developed.

Foreign trade needs of Lithuania determine the search for the EU State partners interested in the development of sea motorways toward the West–East direction. Therefore, Lithuania's interest and task is to initiate the international studies aimed at identifying which specific short sea shipping lines could be included into the EU common interest trans-European networks the development of which could help receive the EU financial aid.

Development of intermodal transport

In the freight transport, the conceptual framework of the intermodal transport is being implemented by expanding the three-type transport nodes: sea and river ports and the new generation logistics centres.

Integration of different transport modes provides new possibilities to increase freight mobility, more efficiently use transport means, and improve the quality of freight carriage and customs services. Besides, such centres facilitate more efficient cooperation among companies engaged in different types of business (not necessarily transport and logistics companies). According to foreign experience, insurance companies, bank branches, IT centres, transport research, consulting and training companies successfully find their niches in the public logistics centres alongside transport companies and inspecting bodies. Usually, with the help of modern IT systems such public logistics centres are connected to international networks making them more competitive in the international transport service market.

In Lithuania, when developing the policy for the establishment of logistics centres, it is essential to take into account a wide range of factors and success criteria related to their development in the states of the Baltic Sea region.

Establishment of modern transport networks and good quality of transportation services are the main market engines. For Lithuania it is of special relevance, since significant investment (planned and executed) to the Lithuanian transport infrastructure (for the effective integration of major transport elements into the trans-European networks) will be economically beneficial only subject to a significant increase in the freight and passenger flows.

Development of information technologies and intelligent transport systems

To accelerate the integration of the Lithuanian transport system into the economic community of Europe and other world countries, it is necessary to develop the information infrastructure of the Lithuanian transport system for optimal functioning both internally and externally.

The information infrastructure of the transport system is understood as an integrated aggregate of information and communication technology means, standards, technical regulations and organisational procedures providing for the electronic accumulation of major information resources within the transport system, coordinated data processing and the immediate provision of reliable and concise information of different nature, form and purpose necessary for technological activities of companies, comprehensive accounting, as well as for the decision-makers of companies/transport system institutions.

The purpose of the information infrastructure of the transport system is the provision of efficient and optimal information on functioning of the Lithuanian transport system. Such an information infrastructure will provide for:

- acceleration and optimisation of the movement of material and information flows through computerisation and informatisation of functioning of its elements controlling the above-mentioned movement;
- integration of the Lithuanian transport system into the European transport network;
- integration into the European transport service market.

In order to develop the information infrastructure of the transport system, it is necessary to take into account general European requirements and multilateral agreements with neighbouring countries.

Transport development and environmental protection

When developing an economically efficient transport system, it is necessary to coordinate the development of all transport modes, give priority to a more environmentally friendly transport, increase the efficiency of energy transport sector, consume more alternative fuels and use less fuels causing environmental pollution, and reduce the environmental pollution.

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

Traffic safety improvement in road transport

In order to ensure traffic safety on the national roads, it is necessary to adopt different measures providing for the achievement of the goals set when implementing complex and special programmes.

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

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

Modernization and development of road transport

The main objectives of modernization and development of road transport are the following:

- to integrate the network of the Lithuanian road transport into the EU road transport system with respect to technical-technological and legal regulation aspects, making use of the favourable

geographical situation of the country and increasing the potential of Lithuanian road transport enterprises and their role in the international market of road transport services;

- to integrate the network of national roads into the EU transport system ensuring inter-regional links with the trans-European roads network, and into the network of local roads forming a single infrastructure necessary for regional development and completion of the network of roads with missing links in order to avoid bottlenecks;
- to ensure that technical parameters of the Lithuanian road network comply with the rational distribution of production forces and the approved development of certain economy branches in individual regions; to reduce transportation costs and enable free movement of passengers and freight transport within the country;
- to make the national and urban road transport systems complex and integrated. This would facilitate rational and efficient use of funds for infrastructure development: resolution of sub-urban and urban communication problems, and development of transit transport corridors or bypasses;
- by all possible means to motivate people of the country to use public transport in order to prevent from a further growth in the number of cars and traffic volumes in the streets and roads, especially in major towns;
- to increase the level of the Lithuanian urban public transport services (accessibility, travel duration, quality, etc.) to the level of public transport services quality in the developed EU Member States;
- to improve the network of public transport routes in order to meet the needs of passengers with regard to services provided within the territory;
- to harmonize the financing mechanism of the passenger transport system in towns and districts so as to make it efficient under market economy conditions, and stimulate competition of passenger transport enterprises in providing passenger transport services;
- to adhere to social principles in forming the demand for and tariffs of public transport services;
- to implement and develop the interoperability of different transport modes for passenger transport;
- to expand the international routes and make a more effective use of opportunities offered by TEN-T networks that undergo modernisation;

- to develop the legal basis for road transport harmonised with the EU requirements, technical standards and technical business regulations;
- to develop an environment-friendly road transport system, give priority to transport that has lower negative impact on the environment; increase energy-efficiency in the road transport sector; use more alternative and less-polluting fuels aimed at reducing environmental pollution;
- to develop ecological conditions for passenger communication; motivate people to choose alternative means of communication; modernise and upgrade infrastructure for non-motorized transport; create the systems for cycle paths and footpaths in towns and settlements that would be separated from motor transport traffic;
- to establish the system for communication of the disabled: to prepare the necessary infrastructure, arrange traffic of buses adjusted for the disabled; adapt crossings and sidewalks in urban streets, public transport stops and car parking lots;
- to develop the road traffic safety system, improve traffic regulation conditions, modernise road infrastructure (improve its geometry and surface), and tighten control for technical condition of vehicles.

Measures planned to be implemented by 2013

Among the measures to be implemented by 2013, the priority shall be given to the modernization and development of roads, full establishment of the network of roads of all levels, construction of missing connections, and modernization of traffic organisation technologies:

- as part of further development of the network of E level highways: to construct bypasses and crossings of different levels, to establish the roadside infrastructure system, to develop separate sections of Trans-European roads, to strengthen and widen road surface, and implement traffic safety and environmental measures;
- to connect Lithuanian road networks modernized according to European standards with those of Poland and via Poland with the trans-European network system of other EU Member States

in order to reach major towns and tourism/cultural centres of the EU Member States;

- to improve connections with the TEN-T network;
- to increase the number of paved gravel roads and reduce the negative environmental effects of transport;
- to develop the network of cycle paths and footpaths in towns, settlements and non-urban roads;
- to increase traffic capacity of streets, continue the building of bypasses in towns, to reconstruct and construct new infrastructure objects (bridges, overpasses, crossings of different levels), and integrate them into the existing networks of streets;
- to integrate urban bypasses and non-urban roads into the formed networks of town streets, connect them with new entry highways, crossings of different levels and missing bridges over rivers;
- to introduce road transport information systems providing the information on traffic conditions, traffic malfunctions, applied traffic management measures, parking possibilities, public transport services and roadside infrastructure;
- to introduce, in major Lithuanian towns, modern systems of coordinated automatic traffic control responsive to traffic changes;
- to ensure harmonized reconstruction or development of transport infrastructure objects in towns and suburbs in accordance with the requirements for the use and management of planned territories, and apply the measures to mitigate a negative environmental effects of transport;
- priorities of freight transport development shall cover the development of multi-modal transport, integration into the EU market, international cooperation issues in the Baltic Sea Region and development of transit services:
- to gradually introduce environmental measures in motor transport: to promote the transition to the alternative, lesspolluting fuel; to tighten requirements on the emissions and noise level;
- to create the system of state aid for the development and promotion of the combined transport (in accordance with relevant EU directives). At the beginning of the reference period it is necessary to draft regulations promoting private initiatives and providing for the attraction of investments for the establishment of combined and intermodal transport logistic centres, which would be important in the future development of transit carriage;

- to get prepared for the establishment of an initial training and regular professional development system for professional drivers; to implement the system in accordance with EU requirements;
- to tighten the requirements for technical condition of motor vehicles in relation to the reduction of motor vehicle emissions and noise, and implement the measures for the reduction of accident rate;
- to promote the use of clean fuel (by using an alternative fuel where clean fuel comprises up to 20%) and the use of electromobiles and hybrid cars for urban travelling, in particular in the field of urban services; reduce traffic jams and air pollution in the most visited places in towns and settlements.

Measures planned to be implemented by 2025

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

- to ensure stable and safe traffic conditions in all trunk roads;
- to complete the paving of national and regional roads used by public transport, and increase the share of paved roads in the national road network to 80%;
- to modernize the network of trunk roads so that it complies with the EU requirements;
- to improve measures of traffic safety and environmental protection in the entire road network;
- to modernize freight transport activities by introducing intelligent technologies, create and introduce a computerized system facilitating the use of electronic equipment for infrastructure toll collection and the control of transport condition, including drivers' work and rest regime.

3 INSTITUTIONS CONTROLLING ROAD TRANSPORT

In Lithuania two state institutions are responsible for supervision of traffic on the roads and regulation of road transport activities: State Road Transport Inspectorate and Road Police. Their concerted work shall ensure traffic safety and effective road transport activities.

State Road Transport Inspectorate

State Road Transport Inspectorate under the Ministry of Transport and Communications shall execute public regulation of road transport activity in the Republic of Lithuania and perform state supervision of road transport economic entities by providing equal and favourable competition conditions for free and secure transportation of passengers and goods, seeking to earn the trust of the society and business sector by providing honest, fair and responsible services.

On 31 May 1993, the Lithuanian Government adopted the Resolution on the establishment of the State Road Transport Inspectorate (hereinafter referred to as the Inspectorate) which was tasked to perform the state supervision of road transport economic entities and carriers.

Within 19 years, the Inspectorate has completely developed and integrated all components necessary for the successful activities: human resources, legal basis, material-technical facilities and the information system. The Inspectorate pursues the strategic goal to create equal and favourable conditions for the development of road transport business, improvement of safety on roads and reduction of negative environmental impact.

The road transport holds an exceptional place in the Lithuanian transport system. Over 50 percent of goods and nearly 98 percent of all passengers are transported by roads in Lithuania. Lithuanian carriers hold strong positions in the international transportation market and successfully compete with the carriers of other countries. The State Road Transport Inspectorate issues licenses for freight transportation by domestic and international routes and for passenger transportation by long-distance and international routes. There were only 88 carriers holding licenses for transportation of passengers and goods in Lithuania in 1993. They had 960 licensed buses and freight vehicles. As of 1 January 2011, 4 197 carriers owned Community licenses and authorizations providing for the international freight and passengers transportation by roads; 21 713 freight transport vehicles were issued with copies of the Community licenses and authorizations.



Figure 5. Number of Permit (Licence) Holding Companies Source: State Road Transport Inspectorate under the Ministry of Transport and Communications http://www.sumin.lt/files/uploads//2011%20m.%20apzv..pdf

The Inspectorate also issues other documents for carriage of passengers and goods to or via other countries; issues permits to drive over-dimensioned and heavy goods vehicles in the Republic of Lithuania; issues driver attestations to drivers who are not the nationals of the EU Member States.

Control is a very important area in the Inspectorate's activities. It is aimed to reduce the number of violations, secure proper conditions for road transport activity and safety on roads. In implementing the EU requirements on drivers' social conditions and improvement of traffic safety, the control of driving and rest regime is constantly enhanced. The officials of the Inspectorate supervise the activities of passenger and goods carriers, state technical inspection centres, driving schools and education establishments and bus stations; it also controls the procedure for granting the road transport privileges to passengers; controls passenger and goods vehicles, also the vehicles carrying dangerous goods as well as over-dimensioned and heavy goods vehicles; and pursues the control of technical condition of vehicles, and payment of transport vehicle ownership tax. In their work, the officials of the Inspectorate are provided with all necessary equipment, and they continuously master new control methods. Particular attention is given to preventive measures.



Figure 6. Number of freight vehicles licences Source: LR Susisiekimo ministerija

An important step in improving drivers' work conditions and traffic safety and in ensuring equal competition conditions for all drivers was introduction of digital tachographs in Lithuania. The Inspectorate developed legal and technical infrastructure necessary for proper operation of digital tachographs and safe e-data transmission to relevant institutions of the EU Member States.

Seeking to secure safety on Lithuanian roads, the Inspectorate develops organizational principles of the state technical supervision, participates in developing and implementing traffic safety programmes and technical road transport policy.

Particular attention is given to preparation and drivers' skill upgrading. The Inspectorate evaluates activities of driving schools and issues the documents granting the right to be engaged in road transport training, including the certificates for driving teachers and driving instructors. Specialists of the Inspectorate examine managers of the licensed road transport activity, drivers carrying dangerous goods and other persons related to transportation of dangerous goods, and issue relevant documents.

The Lithuanian Road Police

The Lithuanian Road Police Service supervises the traffic on the roads of the Republic of Lithuania, escorts the heads of foreign states, governments and other official delegations as well as fulfils other special functions ascribed to by the legal acts on a country-wide scale and based on the non-territorial principle.

Upon joining the European Union, the accident rate and road safety in Lithuania has become a sore subject demanding actions to be taken to reduce the above indicators. Bad road safety situation is one of the obstacles hindering Lithuania's integration into the European Union. Moreover, this impedes the attraction of more foreign tourists into the country since in relation to road safety Lithuania is regarded to be the country of an increased risk.

The Road Safety Policy in the Republic of Lithuania is guided by the Local Government approving the state road safety programmes for implementation by the respective state institutions such as: Lithuanian Road Administration under the Ministry of Communication, the Ministry of Finance, the Ministry of Health, and Police Department under the Ministry of Internal Affairs of the Republic of Lithuania etc. However, currently nearly the sole and principal institution able of practically affecting the road safety processes is the police.

Police work in the area of road safety is related not only to the control functions and punitive measures but also to the application of preventive measures aimed at precluding the violations of road traffic rules before they are committed. However, the police activity in the field of road safety is not very operative and efficient: in recent years the accident rate in the country has increased, as well as the number of fatalities and injuries during the road accidents.

Bad situation in the sphere of road safety cannot be attributed exceptionally to the police activity, though organization of the police work, shortage of staff and inadequate supply obviously have negative impact on the police activity in the field of road safety. Besides, within the country, apart from police performance faults, road safety is also affected by social factors: improper behaviour of traffic participants, denial of universally binding norms, as well as by the legal factors: poor regulation of preventive measures, multiple police functions, mild penalty system for violations of the Road traffic rules. Elimination of at least part of the faults in the area of road safety and due improvements could help reach positive results.

On 2006 the road safety situation in Lithuania was the worst in the European Union. The Ministry of Transport, the national mass media, other governmental and non-governmental organizations initiated the project "stop the war on the roads". Initially it seemed to be a very drastic title, but the project was very successful for it changed the public opinion and encouraged the road users to start thinking about the behaviour on the roads. Every day TV, radio and newspapers provided information about the situation on the roads. Soon the violations like drunk driving, driving without the licence and improper behaviour on the road have been condemned by the society. Police is still receiving information from citizens about traffic offenders.

The goal of the European Union is to reduce the number of victims by at least 50 percent by 2010. In Lithuania the number of fatalities from 2001 to 2010 decreased by 57,5 percent (in 2009 this number has decreased by 47,6 percent). (at the EU level – by 36 percent in 2009).



Figure 7. Lithuanian Road Transport: Traffic safety

Lietuvos kelių policijos tarnyba. http://www.lkpt.lt/lt/statistika/index.php

Successful implementations:

- Public opinion on road safety changed (stop the "war" on the roads);
- New initiatives on road safety: the Law and strict sanctions for traffic offenses;
- Social advertising;

- Better roads infrastructure;
- Better police enforcement.

Following the National Programme for Safe Traffic on the Motor Roads for 2005–2010, approved by the Government of Lithuanian Republic, five long-term safe traffic campaigns were organized with the purpose: 1) to urge drivers not to exceed the speed limit; 2) to promote the use (by drivers and passengers) of safety-belts and child protection devices in cars; 3) to prevent drivers from driving under the influence of intoxicants, and to create the atmosphere of intolerance toward the intoxicated drivers; 4) to urge the pedestrians to follow traffic regulations; 5) to encourage the pedestrians and cyclists to use reflectors and vests with light reflecting elements.

The experience of West European Countries demonstrated that speed cameras are a very effective solution in the areas where it is not possible to install engineering devices.

Today more than 150 automatic speed control devices are installed on Lithuanian roads. Every day police receives about 500–600 speed control pictures.



Figure 8. Map of Black Spots in Lithuanian on state roads in 2011 Source: http://www.15min.lt/naujiena/gazas/gatve/kuriuose-lietuvoskeliuose-daugiausia-juoduju-demiu-221-228034 The number of road accidents, caused by over speeding drivers has decreased. In these areas traffic accidents with severe consequences were practically eliminated.

The level of traffic safety in Heavy Goods Vehicles is quite high:

- Number of traffic accidents In Lithuania (local and international transport) with fatalities with the participation of heavy goods vehicles (2010): 46;
- Number of traffic accidents caused by drivers of heavy goods vehicles: 36;
- Number of traffic accidents as a result of violation of drive and rest hours (AETR) requirements: 0;
- Number of traffic accidents caused by bad condition of heavy goods vehicles: 0.

The reduced number of road traffic accidents (including fatalities and injured people) is a result of efforts taken within the years.

The progress achieved in 2008–2010 is a result of activities of relevant ministries and organizations. The main factors determining such results are: implementation of the integrated engineering and educative measures, and more strict liability imposed on road traffic offenders.

4 METHODOLOGY OF THE SURVEY

The interviews in early 2011 were conducted with Lithuanian public authorities and companies engaged in border-crossing road transport.

The interviews followed the interview round conducted in the C.A.S.H. project in autumn 2009 and 2010. The previous round investigated the views of both international road freight transport companies and enforcing authorities on safety and security issues in cross-border traffic in the Baltic Sea Region.

The aim of the interviews in Lithuania was to provide an understanding of how the prevailing market conditions in the Baltic Sea Region may have affected:

a) traffic safety;

b) security of drivers, trucks and cargo.

The survey included interviews with 20 experts representing large transport and logistics companies, public authorities and non-governmental transport organisations. Individual interviews usually lasted 1–2 hours and were conducted by the scientists and students of Vilnius Gediminas Technical University (VGTU) in January 2011.

The focus was given to the following topics:

- A. The market for international road freight transport in the BSR;
- B. Traffic safety of border-crossing freight transport and safety enforcement;
- C. Traffic safety and safety culture in border-crossing freight transport;
- D. Security of drivers, trucks and cargo in the BSR.

The interviews aimed to provide general understanding of possible differences in the enforcement of HGV traffic and the compliance of regulations particularly:

- during the past 4–5 years (years 2005–2006);
- by the end of 2010 ("current situation").

The Baltic Sea Region was divided according to relevant country groups. The following abbreviations will be used in the document with reference to certain states: BY = Belarus, DE = Germany; DK = Denmark; EE = Estonia; FI = Finland; LT = Lithuania; LV = Latvia; NO = Norway; RU = Russia; SE = Sweden.

The aim was NOT to identify individual operators (firms, authorities or individuals). All responses have been treated anonymously, thus an individual respondent or a company cannot be identified in the findings. The report (in English) will be available in: http://www.cash-project.eu/

In this study, the term HGV (Heavy Goods Vehicle) refers to vehicles with a mass of 26 tonnes and/or a length of 16.5 meters or more as defined in Directive 96/53/EC (Figure 1)



Source: ACEA report on truck masses by Prof. Kent Lumsden 2009 http://www.acea.be/images/uploads/pub/trucks_masses.pdf

Figure 9. Types of Heavy Goods Vehicles (HGV) under analysis

A generally used term HGV is used here instead of the formal EU term Large Goods Vehicle (LGV) with a maximum allowed mass (MAM) over 3.5 tonnes. LGV Category N2 is up to 12 t and LGV category N3 is more than 12 t.

5 PART A. MARKET FOR INTERNATIONAL HGV ROAD FREIGHT TRANSPORT IN THE BSR

The survey was first of all aimed at collecting the opinion of experts on the overall availability of the international HGV road transport capacity from the shipper's perspective in several country groups (comparison of the situation in 2005–2006 and the end of 2010). Here and further in the text the assessment was pursued by applying the following criteria: 4 - very poor; -3, -2 - Poor; -1, 0, 1 - Neither poor nor good; 2, 3 - Good; 4 - Very good. The diagram below presents the breakdown of answers.



Figure 10. Breakdown of answers to Question A.1. Assess the overall availability of international HGV road transport capacity from the shipper's perspective. A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY)

During the survey, after each quantitative assessment, experts were asked to provide their arguments (experts' opinions, arguments and the overview of the assessments are provided in the Annexes). It must be noted that not all the experts provided their assessments. In view of this, the opinions are presented in random order, and experts'
number/letter does not correspond with their sequence in the list of respondents (see Annex 1).

While assessing the general availability of the international HGV road transport capacity from the shipper's perspective, the respondents noted satisfactory availability, i.e. that they had a possibility to fully (and in due time) meet the demand. Assessments of respondents were controversial: according to some of them, satisfaction in the availability of capacity has increased with time (the supply of special capacity); other respondents said that it didn't change, and the third group was of the opinion that availability of capacity has reduced (the reduced demand determined a decrease in the companies' vehicle fleet; when demand increased the companies didn't manage to expand the fleet). Despite the differences in respondents' answers, all of them highlighted that economic crisis influenced availability of the capacity; yet the crisis was not included in the period under analysis.

According to general assessments, situation by the end of 2010, compared to 2005–2006, didn't change. The absence of changes in Lithuania could be explained as follows: the economic development curves during the period under analysis must have been similar (consequently, transport market trends were more or less the same): the years 2005–2006 were the period of "growth"; in order to meet the growing demand all companies tried to supply themselves with capacities (from own or borrowed funds); at the beginning of 2010 the signs of "recovery" emerged and determined recovery (increase) of capacities.

The same argument could be used while explaining the absence of changes in other countries: the beginning of 2010 in other BSR countries is also related to the end of recession. Besides, some countries (e.g. B group) were less "affected" by the recession than Lithuania. Thus they could offer adequate transport capacities.

Therefore, B group countries B group look best in this context. The worst situation is in Russia and Belarus. According to respondents, satisfaction in the availability of capacity in these countries is reducing due to the obsolete fleet and bad technical condition of vehicles.

According to the assessment of general availability of the international HGV road transport capacity from the shipper's perspective in Lithuania in 2005 and at the end of 2010, in 2010 the shipper could get access to transportation services easier than in 2005 since the supply of services in 2010 exceeded the demand. In the second block countries (DE, DK, FI, SE, NO) situation didn't change and was evaluated as very good, i.e. in 2010 export capacities

compared to former two years, has increased and nearly reached the level of 2005. With the increasing service development level in Russia and Belarus availability of transport services also improved. Therefore the situation in 2010 was evaluated better than five years ago. The trade balance in the neighbouring countries, e.g. in Poland, Latvia and Estonia, had a positive impact on the availability of capacity, yet in 2010 the countries didn't reach the level of 2005–2006.

It is necessary to note that the assessments of Russia and Belarus differed significantly. For instance, the first respondent evaluated the situation in 2005-2006 as good in all countries (2 points); in 2010 all BSR countries received better assessments (3 points), whereas the situation in Russia and Belarus didn't change. This could be explained as follows: although during the economic downturn the number of vehicles decreased, the decrease was not significant as it was the case with the cargo volumes, therefore availability from the shipper's perspective has increased. The second respondent evaluated availability of transport capacity (from the shipper's perspective) in Russia and Belarus during the period of 2005–2006 as very poor (-4), in 2010 as poor (-3). The low assessment was due to the problems with the heads of state institutions (inspectorates, customs offices) and the lack of persons willing to go to the above countries. The situation improved due to the renewal of the vehicle fleet and availability of more information. Situation in Lithuania, Latvia and Estonia was evaluated as good (2), in Western European countries as better (3). The respondent didn't identify major changes in the above country groups, since possibilities of Lithuanian, Latvian and Estonian carriers are restricted by the lack of permits and quotas, whereas the price in Western European countries is not competitive. Significant improvement of availability of transport capacity was determined in Poland (the period of 2005–2006 was evaluated by 1 point, the year 2010 by 3 points).

According to the opinion of the Authorities and owners/managers of road transport companies, only slight changes have been observed in international transportation. A small recession in the assessment of the international HGV road transport capacity from the shipper's perspective was identified in: A) Lithuania (LT); B) (DE, DK, FI, SE, NO) group countries. Small improvements in C group countries and quite a significant improvement in D group countries have been observed.

Another important aspect of the market survey was quality of operations of transport companies. To this end the efforts have been made to identify the level of operational quality in HGV road transport.





While assessing the operational quality of companies in separate countries the respondents provided different motives. This was due to the term "quality" which was interpreted by the respondents differently: some of them related quality to the ability to deliver cargo safely and in due time, the others to the technical condition of the available capacities (vehicles); the third group of respondents related the concept to the ability to be flexible or pursue "transparent" activity.

Yet, common views could be discerned even in different comments of respondents. For instance, nearly every respondent noted that the best operational level is in B group countries: better infrastructure and new vehicle fleet provide for better services of carriers. However, according to respondents, quality in these countries is neither getting better nor worse. It remains stable.

According to general assessments, operational quality of companies during the period under analysis has improved nearly in all countries (it didn't change in B group countries), yet the major change was recorded in C group countries: Latvia, Poland and Estonia. According to some respondents, today Polish carriers are most flexible, therefore their operational quality has improved significantly when comparing the above two periods. D group countries received lowest assessments: according to the majority of respondents, when a country suffers from stagnation, operational quality of companies cannot improve (yet, in the general assessment quality in these countries has increased by one point).

When assessing the operational quality of Lithuanian companies, the majority of respondents stated that it has improved, therefore in the general assessment quality from "neither poor nor good" (1) turned into "good" (2). The change was not significant: according to respondents, only large companies can improve/ensure high quality. Since Lithuania has few large companies, general level of quality has improved slightly.

Regarding the level of operational quality of road transport, quality has been increasing in all BSR countries. Scandinavia and Western Europe (DE, DK, FI, SE, NO) apply strict requirements, therefore operational quality was positively evaluated with regard to both periods under analysis. Quality here was referred to as perfect and was given the highest evaluation. During the period of five years situation with respect to timely execution of operations and handling in Russia and Belarus has improved. Consequently, the operational quality level has also increased. However, these countries are still considered to be outsiders in the Baltic Sea Region. The level of operational quality of road transport in Latvia and Poland was evaluated positively. The reduced probability of delayed cargoes in 2010 improved general situation.

The level of operational quality in HGV road transport in A, B and C group countries was evaluated as good. According to the expert, situation has improved in all countries, except Western European states where situation has always been good. Lithuania was distinguished as a country which has reached the highest quality level, whereas the lowest level was defined in Russia and Belarus. Other experts gave best assessments to the operational level of Western European countries (3 points); quality level in A and C group countries has improved from 1 to 2 points, in Russia and Belarus from 0 to 1 point. There were no major problems in A, B and C group countries; all operations were arranged pursuant to the CMR Convention; quality level has been slightly increasing. In Russia and Belarus the level of quality was low due to down-times (70 percent of carriages), low quality of handling operations and inaccurate accounts.

All respondents noted that situation of operational quality of the international HGV transport in Lithuania (A) and in EE, LV, PL improved significantly. In the direction DE, DK, FI, SE, NO (B) and RU, BY (D) no major changes have been observed.

Assessment of profitability in companies is an important criterion for market assessment. Below there is a breakdown of answers to the request to evaluate profitability of companies engaged in the activity of international HGV road freight transport.



Figure 12. Breakdown of answers to Question A.3. Assess the profitability of companies engaged in the activity of the international HGV road freight transport operating from A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY). See experts' motivation and comments in Annex 3

Before presenting general assessments of the company profitability, it is necessary to highlight that all the respondents missed the period of recession which was not included in the period under analysis. According to them, the period of recession could have provided a better assessment of the situation in companies, since the economic crisis was the main factor which determined the drastic changes in the operational indicators of companies during the recent years.

According to the majority of respondents, the estimation of general assessments demonstrated that economic entities were more profitable in 2005–2006 compared to the end of 2010. The years 2005–2006 were related to the period of "recovery" and have been successful for the entire transport market: transport demand has increased and companies which managed to meet the demand worked profitably. Here it is necessary to mention Lithuania, since the phenomenon of a growing "bubble" was especially evident in the country: the growing demand determined the increase of capacities by carriers; being able to increase transportation volumes for lower price they received higher profit during a certain period of time. However, as soon as the economic recession began (in 2007) the "bubble" blowed: the demand for transportation decreased and companies were unable to use the capacities. Consequently, profitability

has decreased significantly. At the beginning of 2010 obvious signs of "recovery" were observed, therefore the change related to the impact of the above factor is not very high.

With regard to general reduction in the profitability of companies, it was not only due to the economic recession but also to higher prices of energy resources which also increased transportation costs. Yet, this factor is not relevant for all countries: fuel prices were lower in Poland and Russia, therefore companies of these countries could decrease prices and work more profitably.

In summary it could be stated that Polish and Russian carriers are most advanced with regard to profitability of operations since here profitability has been increasing very rapidly. According to respondents' assessments the worst situation today is in Lithuania.

It was difficult to evaluate profitability of the companies during different periods: respondents were reluctant to answer the questions and evaluated the situation differently. A general trend was that the highest margin was observed in those transport companies which worked with CIS countries. In November 2008 companies working in the transport sector have reached the so called "bottom". The year 2009: companies providing transport services competed among themselves; profitability was minimal or zero, transportation prices have decreased practically to the cost-price. During the 3rd quarter of 2010 recovery and significant increase of profitability was observed. While comparing the years 2005 and 2010, profitability of transport companies in BSR increased, but not significantly. Major growth of profitability was observed in Russia and Belarus.

Some experts couldn't evaluate profitability of foreign companies due to the lack of information on costs of the above companies. In view of this, the respondents ranked country groups according to transportation tariffs. The highest tariffs were in B group countries; moderate in A and C group countries (neither bad nor good, 1 point); the highest tariffs were in Russia and Belarus (3 points).

According to the opinion of all respondents on the above issue situation has worsened in three directions (A, B, C). A small improvement in profitability was indicated in the direction D (RU, BY).

According to some respondents, competitiveness of economy entities should be related to profitability. Other respondents are of the opinion that it is to be related to the ability to provide high quality services. Thus evaluation of competitiveness differed.

According to the majority of respondents, in 2005–2006 competitiveness of companies in all countries was of the same level

(except D group countries), i.e. "neither poor nor good". Such an assessment was mainly determined by identifying competitiveness with profitability: due to high demand companies of all countries worked profitably during the above period. Thus they all were competitive.



Figure 13. Breakdown of answers to Question A.4. Assess the competitiveness of companies engaged in the international HGV road freight transport operating from A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY). Experts' motivation and comments are presented in Annex 4

When speaking about competitiveness, experts also noted that all companies which experienced recession by distributing funds in a more rational way, could be treated as competitive. Therefore by the end of 2010 competitiveness of companies was related to lower transportation costs. According to general assessments, currently Lithuanian and Polish carriers were more advanced, yet Lithuania's competitiveness was based not on small transportation costs but on a favourable geographic location (territory of the country is passed by huge transit flows). The worst situation in this respect was in B and D group countries: although the cost-price of other countries could not be equalled to Russian and Belorussian companies, they were less competitive due to low quality of services; and visa versa: carriers of B group countries could offer high service quality, but at high prices.

The aspect of competitiveness in the transport sector is a constantly changing phenomenon. In general, in 2010 the level of competitiveness in companies providing transportation services has decreased: during the recession many small carriers disappeared from the market for they were not able to flexibly respond to market changes and, consequently, had to suspend their operations. Lack of carriers was again observed at the end of 2010 due to high demand and export recovery. In 2010 the competition among carriers increased in Lithuania, whereas in 2005 it was much lower. In Scandinavia and Western Europe (DE, DK, FI, SE, NO) competitiveness among transport companies has decreased. It should be noted that today, in order to purchase a new heavyweight vehicle it is necessary to wait from three to six months depending on the type of truck.

While speaking about competitiveness among companies, experts in Lithuania discerned major competition (both, today and during the period of 2005–2006 (2 points). Competition among carriers has slightly increased in Poland (from 1 to 2 points), whereas in Estonia and Latvia it decreased. According to the respondent, in B and D group countries competition situation is neither bad nor good, it didn't change within the years (0 points). B group countries work efficiently in other regions, their geographical situation is worse and transportation costs are higher. Quality of the vehicle feet and work quality of personnel is lacking behind in D group countries. The assessment of competitiveness of the national carriers by the second respondent was similar (1 point to B and D group countries). It is interesting to note that assessment of competitiveness by the representatives of public institutions was nearly the same (i.e. the situation in 2005-2006 and 2010 is very similar), whereas experts representing transport companies evaluated changes in competitiveness drastically (major changes).

Both public authorities and transport associations did not indicate considerable changes with regard to competitiveness in Lithuania and in the direction (B): DE, DK, FI, SE, NO. Better competitiveness was identified in the direction (C): EE, LV, PI. The best situation was in the Eastern direction (RU, BY), yet there were minor discrepancies in the assessment: Authorities ("Neither poor nor good"), Operators ("Good").

The balance between supply and demand in the international road transport in Lithuania in autumn

Experts' motivation and comments are presented in Annexes 4, 5, 6, 7 and 8.

When evaluating the balance between the supply and demand the experts highlighted that the season of autumn cannot be evaluated unambiguously: during the first period of the season the supply is usually higher; the demand is higher during the second period (pre-holiday period).

While assessing the entire autumn season respondents provided different opinions: according to some of them, the balance was observed in autumn 2010, the other said that supply was slightly higher due to the recovering economy. The third group made a conclusion that demand has exceeded supply during the above period. The latter provided the arguments to their statements that carriers didn't have time to get prepared for the recovery of economy (increased export volumes); transport fleet has reduced in many companies.

The general conclusion could be as follows: the autumn of 2010 was not very successful for the Lithuanian transport market: the majority of respondents highlighted higher supply volumes.

In view of the above it could be said that the increased consumption determined the demand for transportation services and that supply could not meet the demand. After experiencing the period of recession the transport sector didn't hurry to increase volumes of services, therefore the demand for transportation could not be met. This determined a temporary jump in transportation prices.

When asked to assess the balance between the supply and demand in the international road transport in Lithuania in autumn 2010, the respondents said that transport demand was higher due to the lack of vehicles. One of respondents noted that demand was slightly higher.

All respondents mentioned that Lithuanian road freight transport fleet fully satisfied Lithuania's import and export service requirements. HGV fleet comprised nearly 22 000 vehicles. More than 50 percent of HGV operated in other EU Member States or transported goods between the EU and Russia. Regarding Lithuanian transport, high competition was due to "cheap" transport in other countries (Belarus, Ukraine). In view of this transport companies had to reduce transportation costs.

The main changes in the market structure of the international road freight transport in Lithuania during the past 5 years

When evaluating the freight transportation market, respondents highlighted that during the recent five years Lithuania experienced many changes. The most important included:

 high number of bankruptcies: during the crisis the majority of companies had to terminate their activity. According to respondents small companies and economy entities the main part of service package of which consisted of warehousing services, suffered from the recession most of all;

- consolidation: in order to survive during the period of crisis companies were forced to merge and pursue common activity;
- reduced vehicle fleet, i.e. reduction of available capacities (by own will or under compulsion). Some companies had to do this in order to optimise operations, the others because of inability to pay credits;
- reduced sales are related to lower demand and higher transportation costs;
- reduction in the number of employees: during the economic downturn this is a natural phenomenon: in case of the fall in demand (and capacities) it is necessary to optimise operations, therefore the reduction in the number of employees is inevitable.

Other respondents tried to dissociate from the recession and discerned positive changes:

- after elimination of the permit and visa regime transportation procedures to certain countries have been simplified;
- Recovery was observed in 2010: the demand for transportation was increasing, companies increased their capacities.

Respondents highlighted main changes in the market structure for international road freight transport in Lithuania during the recent five years. The number of companies and employees has decreased, majority of them either went bankrupt or merged the international networks (companies). Several companies acquired DSV, consolidated logistics services and could offer a wide spectrum of services (signs of 3 PL business). Considerable reduction in the number of forwarders. High number of transport companies experiencing real of fake bankruptcy. These factors were determined by changing customer's needs. The focus was given to CIS countries. It was necessary to increase the speed of services directed toward transit flows. There were also multiple political and economical reasons: changing export and import markets and transportation trends included the changes in the customs tariffs and attitudes.

In summary, it could be stated that main changes in the market structure for international road freight transportation in Lithuania during the recent five years were: high number of bankrupt transport companies in 2009 (about 20 percent), big number of unpaid and returned (to credit institutions) freight vehicles. During the pre-crisis period transport companies employed about 80 000 employees. During the downturn this number has decreased and now it has been again increasing. Today the market has less weak and small companies, and large transport companies have improved their operations. The role of forwarders has also increased because of a smaller size of goods consignments. This resulted in a more frequent transportation of partial freight and consolidation of services.

Changes identified by respondents:

- Essential liquidations and bankruptcies of the small companies;
- Lack of HGV drivers in own country;
- Some companies established their subsidiaries in the Kaliningrad district; this helped to solve the problem of permits to Russia;
- Foreign transport companies didn't appear in Lithuania;
- Transport fleet underwent significant improvements. Near 30 percent of HGV have Euro 4 and Euro 5 certificates.

Factors determining the changes

According to respondents the main factors which determined the changes are as follows:

- Global economic downturn;
- Lack of permits to Russia since main international transport flows are between Western Europe and Eastern Europe (Russia, Belarus);
- Smuggling (invoice counterfeiting when transported cargo and cargo in the documentation differed). This determined more frequent checks by relevant services (time and other costs have also increased);
- Lack of responsibility by public authorities toward carriers; when business experienced major difficulties no assistance was provided by the authorities; instead, they introduced disciplinary penalties. Public authorities didn't provide any support.

Other reasons included:

- Strong influence of the financial crisis;
- Pressure by the international transport market.

The main impacts of the current market conditions (autumn 2010) on the market and operations of the international road freight transport in Lithuania currently and by the end of 2010

The current market conditions have positive impact on transport market: today both, export and import volumes are increasing and determine the increasing volumes of orders and operations by companies. The increase in volumes encourages carriers to increase the capacities. According to respondents, by the end of 2011 vehicle fleets would expand (according to some respondents, renewal of the vehicle fleet should contribute to the enhancement of company competitiveness; yet other respondents noted that development should be well thought out in the situation of unstable fuel prices; in view of this, they evaluated the accelerated expansion of the vehicle fleet negatively).

Respondents have also noted the currently increasing transit flows: Lithuanian transport can survive from these flows and earn more from the cabotage transport. According to them, similar trends should remain until the very end of 2011.

Market conditions in Lithuania in 2011: carriers look for cheaper fuel resources; intermodal transport and transportation of containers by train have emerged. Yet companies should be better informed, including the promotion of multimodal transport. In 2009 export volumes were quite high in Lithuania, it was difficult to find the goods for import (from Russia and Belarus) in order to avoid empty runs.

Respondents were quite optimistic when speaking about the impact of current market conditions (autumn 2010) on the international road freight transport market and operations in Lithuania until the end of 2011: markets have been recovering, including the demand for trucks; transportation prices have also increased, and market development should remain stable until the end of 2011 because of the stable recovery of Western markets and delayed recovery (by 2–3 months) in Lithuania. Transportation volumes to the East have also been recovering. More attention in the Region was given to the ecology (packing, ecological vehicles, fuel). Yet, if the demand for services will increase very rapidly, this might result in the surplus vehicles and the overfilled market.

Other impacts mentioned by respondents include:

- Vague Russia's transport policy;
- Service quality requirements for the BSR transport market.

6

PART B. TRAFFIC SAFETY IN BORDER-CROSSING HGV TRAFFIC AND ITS ENFORCEMENT

The second part of the survey was aimed at investigating traffic safety aspects in border crossing areas. It should be noted that during the survey it was necessary to additionally explain the interpretation of the concepts *safety* and *security* and their main differences. First of all the experts were asked to evaluate, from the position of traffic safety, the level of the structural (state) regulatory framework of the international HGV transport.



Figure 14. Breakdown of answers to Question B.1. In view of traffic safety, assess the level of the regulatory framework of the international HGV transport in: A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY). Experts' motivation and comments are presented in Annex 9

When evaluating the level of the state regulatory framework of the international HGV in separate countries, the respondents noted that there were no major changes while comparing the end of 2010 and the period of 2005–2006; in view of this the level of the state regulatory framework has improved slightly.

According to general assessments, a major progress was achieved in B group countries: the respondents highlighted that the level of state regulatory framework in these states have always been of a high level, thus it was evaluated as "good" (have increased by 1 point during the period under analysis). Worst assessments were given to Russia and Belarus: according to the majority of respondents, the level of state regulatory framework remained unchanged: it was and still is "poor". The main reason of such an assessment is as follows: rather than following specific safety requirements these countries listen only to the instructions of the authorities. Lithuania and C block countries have been highlighted as the countries which have achieved major progress: here the level of state regulation framework has increased by even 2 points.

The above distribution of points was determined by the fact that respondents paid more attention to safety and affecting factors rather than to the functioning of the system; therefore they evaluated the level of state regulatory framework in the countries by taking into account the following aspects: infrastructure, state of roads, accident rate, application of repressive/preventive measures, the role of supervising institutions, implementation of technical measures etc. The countries which managed to implement or improve the above spheres received better assessments. Thus, the conclusion could be made that not all the respondents understood the question in the right way.

The level of structural (state) regulatory framework of the international HGV transport was also assessed with respect to transport safety. Respondents evaluated the situation in separate group countries practically unanimously. The Baltic States, including Poland, Scandinavian countries and EU Member States shall follow general EU requirements and regulations. Safety requirements for A (LT) and B (DE, DK, FI, SE, NO) group countries have become more strict, especially with regard to driving and rest time regime; therefore respondents indicated that situation has improved. In B group countries requirements are stable, strict, the countries manage to ensure high safety level; in view of this respondents didn't indicate any changes with respect to different periods (2005–2006 and the end of 2010). Confusion in D group countries (RU, BY), but situation is improving.

When evaluating the level of structural (state) regulatory framework of the international HGV transport with regard to traffic safety, all the respondents highly evaluated Western European and Scandinavian countries; the lowest points were given to Russia and Belarus, moderate assessments to Baltic States and Poland. Supervising institutions work most efficiently in B group countries (compared to other states); they constantly follow cargo handling requirements (this is not the case in other countries). Therefore these countries were given 3 and 4 points (good or very good). Situation in Russia and Belarus is absolutely different. Since situation during the recent 5 years hasn't improved, the respondents gave to these countries the lowest points (-3, -2 and -1). This was due to the corrupted officers in the supervising institutions (bribes prevail) and slowly renovated infrastructure. In general, Russia as a state doesn't give due regard to traffic safety (signs of protectionism). Situation in the Baltic States is improving, but very slowly. The improvement was determined by a more effective control and more strict penalties. According to respondents, situation has significantly improved in Poland: the country has doubled the number of inspectors and renovated infrastructure.

Situation in domestic transportation (LT) was evaluated as good; in the Eastern direction (RU & BY) as poor. Most significant traffic safety improvements have been identified in A and C group countries. It was underlined that work in the Transport Inspectorate is well organized and is in accordance with the EU directives. One of the positive changes is coordination of the requirement on drivers' work and rest time in the EU and other countries (earlier there were discrepancies in the Regulation requirements (EC) No 561/2006 and AETR Agreements). Problems with LV-RU, LT-RU border-crossing are still mentioned as a negative factor.

Respondents indicated that the level of traffic safety regulatory framework has improved from good to very good.



Figure 15. Breakdown of answers to Question B.2. How the regulatory framework for traffic safety of the international HGV transport is enforced in: A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY). Experts' motivation and comments are presented in Annex 10

While assessing the observance of traffic safety regulatory framework requirements in each of the BSR states, all the respondents agreed that the best situation was in B group countries; the worst situation was in Russia and Belarus. The above results were determined by the fact that compliance/non-compliance with the requirements was related by the respondents to the role of supervising institutions, as well as to the level of control, work of officers, application of repressive and preventive measures and the level of corruption in the country.

According to respondents, the role of supervising institutions in the Scandinavian countries has always been high (very low level of corruption); therefore they received best assessments. Yet, they didn't discern neither worsening nor improvement in this field; it means that the level of compliance with the requirements remains the same.

Considering the D group countries as the most corrupted respondents assessed their situation as poor, yet, according to general assessments slight improvements could be discerned when comparing the period of 2005–2006 and the end of 2010.

According to respondents Lithuania and Poland have achieved major progress in this field (due to more repressive measures and social advertising).

Requirements of safety regulatory framework are observed. Safety is one of the quality requirements therefore it should be observed (companies having quality certificates don't want to loose them). In case of violations big penalties are imposed. Although Lithuania has signed various international conventions, their implementation is not supervised. It is difficult to ensure adequate marking of cargo (e.g. insufficient attention is given to such goods as glass cleaners which are considered as dangerous products; no relevant markings). Assessment of the situation in Lithuania among different respondents was controversial, yet they all highlighted that situation has improved. Some of them evaluated the compliance with safety regulatory framework requirements as poor, the others as good, the third assessed the situation as good and stable. Consumers' demands and tense market make carriers of certain countries violate traffic safety requirements. Respondents unanimously indicated that the worst observance of the international HGV traffic safety regulatory framework is in D group countries (RU, BY). B group countries (DE, DK, FI, SE, NO) observe these rules best of all. Their average assessment is good (3 points): the countries strictly observe the established rules (very big fines are imposed for violation of rules). Moreover, carriers of the above countries have conscious customers, since their responsibility is always included in the transportation contract (this is not the case in other countries). The observance of safety requirements in Lithuania and C group countries is evaluated as average good (1, 2 points); the situation has slightly improved during the recent years due to the introduction of more strict traffic requirements. The check post was opened close to Klaipeda; training courses are organized for police officers. Carriers of Russia and Belarus received the lowest assessments (poor, -3 points) due to corruption spread among supervising officers.

The respondents indicated that the most dangerous transportation conditions are in Russia and Belarus: the average level is "poor".

Respondents indicated the following main reasons of low traffic safety level:

- Low quality of roads in Russia;
- Regular queues at the border;
- Big corruption between the Customs and Road police officers.

Most significant traffic safety improvements were identified in Lithuania. Significant traffic safety improvements identified in A and C group countries.

With respect to the international HGV traffic safety in Lithuania, please, rank the four (4) most problematic regulatory issues for options I, II and III with regard to:

- a) non-compliance by the carrier, shipper and/or the driver;
- b) enforcement by road police, transport inspectorate or other Competent Authority.



Figure 16. Ranking No. 1. Non-compliance detection in Lithuanian trucks and drivers operating in Lithuania. Non-compliance ranking



Figure 17. Ranking No. 1 Requirements imposed for Lithuanian trucks and drivers operating in Lithuania. Enforcement ranking



Figure 18. Ranking No. 2. Non-compliance detection in trucks and drivers from other EU countries operating in Lithuania. Non-compliance ranking



Figure 19. Ranking No. 2. Requirements imposed for trucks and drivers from other EU countries operating in Lithuania. Enforcement ranking



Figure 20. Ranking No. 3. Non-compliance detection in trucks and drivers from Russia and Belarus operating in Lithuania. Non-compliance ranking



Figure 21. Ranking No. 3. Requirements imposed for trucks and drivers from Russia and Belarus operating in Lithuania. Enforcement ranking Experts' motivation and comments are presented in Annex 11

When asked to rank the four most problematic spheres violated by Lithuanian carriers, respondents indicated the following violations: 1) non-compliance with overload restrictions, 2) over speeding, 3) driving and rest hours (AETR) and 4) cargo documentation and cargo securing. Carriers from other European countries usually don't observe the same rules, but not so often. Usually technical condition of vehicles of foreign carriers is good, cargo securing and overload violations are rare compared to Lithuanian carriers. Russian and Belorussian carriers violate the rules most frequently including the over speed, non-compliance with driving and rest time rules (AETR), overload requirements, or drive vehicles which do not comply with technical requirements. Documentation and cargo securing are also inadequate.

The process of ranking was aimed at revealing the most problematic safety areas in Lithuania. During this process out of eleven areas respondents had to select the four spheres most relevant for carriers of specific countries from two points of view. By evaluating what was most required from Lithuanian carriers, all the respondents agreed on the observance of driving and rest regime (1), but their opinions differed with respect to other issues. After assessing the average values and the number of respondents, other relevant spheres have been defined: over speeding (2), vehicle documents (3), technical standards of vehicles (4).

The opinion of respondents concerning the most frequent violations by Lithuanian carriers (via drivers) differed, but the most frequent spheres were: driving and rest hours (1), over speeding (2), cargo securing (3), overload (4).

Regarding EU carriers, the majority of respondents said that in Lithuania they are required to observe driving and rest regime (1) and not to exceed speed (2). Other important spheres are: cabotage (3) and cargo documentation (4).

According to nearly all respondents, most frequently the EU carriers (via drivers) violate driving and rest regime (1). The second sphere was cargo documentation (2). Other fields by average values and number of respondents were over speeding (3) and overload (4).

According to average values and to the majority of respondents, Russian and Belorussian carriers are required in Lithuania to observe driving and rest regime (1), have cargo documentation (2), not to overload vehicles (3) and not to exceed speed (4).

Most frequently violated spheres of regulation by Russian and Belorussian carriers in Lithuania (by the number of respondents and average meanings): driving and rest regime (1), the use of alcohol/drugs (2), technical standards of vehicles (3) and over speeding (4).

Thus, the most problematic spheres of regulation are: driving and rest regime and over speeding (these rules are not observed neither by Lithuanian nor by other countries' carriers (despite the strict rules imposed to these spheres). According to respondents, carriers (especially foreign) do not observe these rules because their main goal is to cross the border and reach the destination as soon as possible.

Overload and cargo securing could be attributed to other problem areas. The first rule is violated by the carriers of nearly all countries and is related to bad work of responsible officers: being aware of a possibility to "reach the agreement" in Lithuania, they violate these rules consciously. Cargo securing problem is actual for Lithuanian carriers; according to respondents, although the importance of cargo securing is emphasized, the action itself is not regulated.

The survey also revealed that carriers from Russia and Belarus have problems with the use of alcohol: this sphere is violated quite often (2nd place according by vulnerability). Representatives of Scandinavian countries are least inclined to violate these rules.

Because of multiple options ranking among the respondents differed. Thus the problem areas related to traffic safety regulation for trucks and drivers in Lithuania included: non-observance of driving and rest hours (AETR) regime, cargo documentation requirements, transportation of dangerous goods (ADR) and cabotage requirements. The strictest rules apply to the following fields: vehicles including technical standards for trailers, the use of alcohol and/or drugs, over speeding, cargo documentation and cabotage.

When ranking the most problematic safety regulation spheres in Lithuania for trucks and drivers and for drivers from other EU States driving in Lithuania, the most frequent non-compliance spheres were: cargo documentation, driving and rest hours (AETR), transportation of dangerous goods, and technical requirements for vehicles including trailers (ADR). The highest requirements are imposed to the following: vehicle documentation, the use of alcohol/drugs by drivers and cargo documentation.

While ranking the spheres of compliance with traffic safety requirements by trucks and drivers from Russia and Belarus, respondents identified major non-compliances in the following spheres: driving and rest hours regime (AETR), transportation of dangerous goods (ADR) and proper cargo documentation. The highest requirements are imposed to the following: cargo documentation, technical standards of vehicles including trailers, and over speeding.

Considerable attention in B group countries (DE, DK, FI, SE, NO) was given to cabotage transport. It is obvious that vehicles cannot operate without relevant documentation, the driver cannot drive without driver's licence or certificate; the use of alcohol/drugs and over speeding are also very important factors. Cargo securing and cargo documentation are not so important. Peculiarities of transportation to separate country groups were not highlighted, the assessment was the same for all country groups. The boom of transportation lasted until 2007 (high demand of drivers), therefore some drivers lacked relevant competences.

When assessing problem regulation spheres by the requirement ranking, some respondents said that the same requirements are applicable to the carriers of all countries. Meanwhile other respondents presented different ranking of requirements with respect to different country groups. According to some respondents, usually officers impose requirements to the areas which are easy to check, e.g. over speeding, documentation (driver's licence, cargo and vehicle documents), compliance with AETR requirements. Other respondents said that major requirements imposed on Lithuanian carriers are: compliance with driving and rest hours' regime (AETR), overload, over speeding and cargo securing. Other respondents said that requirements for trucks and drivers from other EU countries usually were restricted to cargo documentation, technical standards of vehicles and trailers, and all documentation. Trucks and drivers from Russia are usually required (controlled, AETR) to submit cargo securing and cargo documentation (including speed control). Vehicles of Russian and Belorussian carriers are usually of bad technical condition and overloaded.

With respect to drivers from other EU countries operating in Lithuania the most problematic areas are driving and rest hours, speeding and overloads.

For trucks and drivers from Russia and Belarus operating in Lithuania the most problematic areas are driving and rest hours, cabotage, transportation of dangerous goods, the use of alcohol and technical quality of HGV.

The common rules of AETR (Coordinated with requirements of Rule 561/2006) came into force in December 2010 and in this respect the requirements of this index have reached common standards in all European transport companies. This had a very positive impact on road safety.

Functions of the Traffic Police and Road Transport Inspectorate units are not coordinated.

According to the respondents, the main problem of security at border crossings for both the Lithuanian haulage companies and foreign companies carrying the cargoes through the territory of Lithuania is related to permanent long queues at the Lithuanian–Russian (Kaliningrad Region) and Lithuanian-Belorussian borders. Here carriers try to compensate the time lost due to violations of driving and rest hours regime or over speeding, and sometimes use alcohol during the long waiting hours

Another huge problem of the Lithuanian transport market is overloaded vehicles.

7 PART C. TRAFFIC SAFETY AND SAFETY CULTURE IN BORDER-CROSSING FREIGHT TRANSPORT

The third part of the survey was aimed at analysing the situation with respect to traffic safety and safety culture in border-crossing freight transport. In view of this, the experts were asked to evaluate the overall traffic safety situation in the roads.



Figure 22. Breakdown of answers to Question C.1. Please assess the overall road safety situation in: A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D) Russia, Belarus (RU & BY)

When assessing the overall traffic safety situation in the roads, respondents first of all specified the meaning of the term "safety". After clarifying that this term comprises overall situation in the roads (i.e. safety in the roads, general accident statistics etc.), nearly all country groups received low assessment points in 2005–2006. According to the majority of respondents, during the above period high accident rate was observed in all the countries, including bad condition of roads. Therefore safety situation was evaluated negatively.

Yet, the B group countries have been distinguished with respect to safety: here the overall safety situation both in 2005–2006 and by the

end of 2010 was assessed as "good". Such an assessment was determined by two reasons: better infrastructure in the above countries and high public awareness on the importance to observe safety requirements.

Situation in A and C group countries at the end of 2010 was evaluated much better, whereas in D group countries it was still "bad"; yet the respondents didn't provide their arguments for such an assessment. The assessment of traffic safety situation in the roads was done by intuition, i.e. it was based on former experience and general knowledge of the accident statistics.

The overall traffic safety situation in the roads was evaluated by respondents unanimously in B group countries (DE, DK, FI, SE, NO) due to the prevailing strict order in these countries and high quality requirements. The worst situation is still in Russia and Belarus. Improvement of the situation in all country groups is observed when comparing the period of 2005–2006 and the end of 2010. Several respondents evaluated overall traffic safety situation in Lithuanian roads as bad. Assessments of the situation in Estonia, Latvia and Poland were neither bad nor good.

The overall traffic safety situation in the roads is best evaluated in Western European and Scandinavian countries (good or very good). Situation is not so good in Lithuania and neighbouring countries: Estonia, Latvia and Poland. Some respondents were of the opinion that traffic safety situation in Lithuania is better compared to neighbouring countries, the others said that situation is the same. By the way, in comparison to 2005-2006, the improvement is observed in Lithuania and neighbouring countries, and it is related to the reconstructed Polish roads and more strict traffic rues and control. With regard to traffic safety, Russia and Belarus received lowest assessments (from -3 points (poor) to 1 point (neither poor nor good).

According to the respondents no changes were observed in the Western direction (DE, DK, FI, SE, NO). These countries were considered as most safe and situation there was defined as "good or very good". The Eastern direction (RU & BY) was least safe. Transportation in Lithuania (LT) was evaluated as good.

It was identified that during the last five years major positive changes have been observed in A and C group countries.





When evaluating the level of traffic safety, respondents took into account the overall traffic safety situation in the roads and the perception prevailing in each country toward observance of safety requirements.

According to respondents, the level of safety culture in all group countries (except B group) was much better by the end of 2010 than in 2005–2006.

According to respondents, Russia and Belarus are the countries which least comply with safety culture requirements. The main explanation is still prevailing soviet mentality or lack of public education on the above issue.

According to the majority of respondents, safety culture in B group countries is of high level, since traffic safety awareness has been developed in these countries for many years. Scandinavian countries could be distinguished from this group. According to respondents, traffic participants behave cautiously; more responsibility in the roads, perseverance of infrastructure. Situation in Germany is also quite good and it is also evaluated as a progressive country with respect to safety culture. Despite that, B group countries didn't receive the highest assessment since level of safety culture was reduced by "new-comers" from other countries.

Regarding C group countries, Poland was specified as the worst country with respect to safety culture (assessment from "poor" (-2)

changed into "neither poor nor good" (1), whereas the level of safety culture in Latvia and Estonia was equalled to that of Lithuania. According to the majority of respondents, these countries achieved major progress (the assessment from -1 changed into 1); it was not possible to give higher mark since many good drivers left the country for work abroad.

Consistency and good assessment results with respect to Scandinavian and Central European Countries is highlighted while assessing the level of safety culture of the international HGV transport companies (the entire area); and quite low level of Russia and Belarus due to prevailing "strange" order and corruption. Respondents indicated improvement in the level of safety culture. This is due to better condition of roads, high qualification and awareness of drivers.

While assessing the level of safety culture in the international HGV transport companies (the entire area) B group countries were given best assessments; Lithuania and C group countries – moderate (between 0 and 3 points), and D group countries received the lowest points. Situation in B group countries was and is quite good since these countries don't spare investment to drivers' safety (issue various leaflets, booklets and instructions in various languages). The improvement of the situation in Lithuania is related to huge contribution of Lithuanian carriers in the transportation business (carriers consider themselves as Europeans and behaviour of other actors toward them has also improved). In general, the overall business culture in Lithuania is moving forward; the country tries to follow good practices of other countries; traffic statistics has also improved (it was influenced by the reduced vehicle fleet).

Respondents did not mention any changes in direction A (Lithuania) and B (EE, LV, PL) with respect to the level of safety culture in international HGV transport companies. The best level of safety culture was indicated in the Western direction (DE, DK, FI, SE, NO).

Developments and/or programmes which contributed to the improvement of HGV road safety in border-crossing traffic over the past 5 years

Experts' motivation and comments are presented in Annex 13.

According to the respondents, the improvement was determined by the following changes: 1) improvement of road infrastructure (e.g. introduction of fixed speed cameras); 2) more control in roads; 3) more active police; 4) reduced number of organised criminal groups; and 5) integration to the EU (elimination of borders).

When speaking about the Baltic Sea Region, the respondents indicated similar changes as in Lithuania. According to them, the improvement was determined by better condition of roads and better control in the roads. They also mentioned the Schengen Treaty and training of drivers (qualification upgrading courses).

With regard to changes and/or programmes which contributed to the improvement of HGV traffic safety in border-crossing areas during the recent 5 years, the respondents indicated:

- Reduced number of control posts;
- Changes in infrastructure;
- Information on more strict penalties and changes in the road traffic regulations (in 2006 a publication was issued (by the EU funds) on the improvement of traffic safety;
- Efforts of the Ministry of Transport and Communications to improve the situation via social advertising;
- Restricted licensing;
- Introduction of electronic tachograph.

Generally, the changes which contributed to the improvement of traffic safety in the Baltic Sea Region include:

- Infrastructural changes in the roads (especially in Poland and Latvia);
- More strict penalties for violations.

Some respondents didn't understand the essence of the question and didn't provide any answer; according to their understanding border control posts do not longer exist in the Baltic Sea Region (the EU territory).

Changes which improved the HGV traffic safety in border crossing areas during the recent five years in Lithuania and BCR included: membership in the EU and joining the Schengen area; introduction of common rule of procedure, modernisation of customs offices, restructuring and renovation of road and other infrastructure. More strict ecological and safety requirements also contributed to the improved situation.

According to the respondents, the significant factors in Lithuania are:

- EU Directives and Regulations;
- Installed system of photo radars;
- More strict penalties.

Factors, developments and/or programmes which have most deteriorated HGV road safety in border-crossing traffic over the past five years

Experts' motivation and comments are presented in Annex 14.

According to respondents, both in Lithuania and in the entire BCR, traffic safety most deteriorated because of the insufficient throughput capacity of border crossing posts resulting in long queues. One of the reasons was inadequate preparation for huge traffic flows (not adjusted infrastructure). One of respondents noted that queues in border crossing posts have a negative impact not only on the effective work of companies but also on the surrounding areas and life quality of people.

Respondents also highlighted complicated border-crossing at Russian and Belorussian borders determining a large amount of various procedures, and mentioned the Lithuanian–Polish border where illegal actions take place due to reduced control (overloaded vehicles, smuggling etc.)

Regarding the changes and/or programmes which most affected HGV traffic safety in border crossing posts during the recent five years, the majority of respondents didn't have the opinion and missed the question. The only argument was that increasing queues at the border crossing posts prevent from ensuring adequate rest for drivers. While standing in the queues they get tired and frequently use alcohol. The same problem exists in the Baltic Sea ferries.

Thus, one of the most significant factors indicated by the respondents was "long queues at the borders".

8 PART D. SECURITY OF DRIVERS, TRUCKS OR CARGO IN THE BSR

In order to reveal the overall situation related to the security of drivers, trucks and cargo, respondents were asked to identify the main changes which improved/deteriorated security of drivers, vehicles and cargo and express their opinion on most relevant security risks in the international road transport.



Figure 24. Breakdown of answers to Question D.1. Please, assess the overall security situation related to international HGV transport in A) Lithuania (LT); B) DE, DK, FI, SE, NO; C) EE, LV, PL; D)
Russia, Belarus (RU & BY)
Experts' motivation and comments are presented in Annex 15

According to respondents, in 2005–2006 the situation in Lithuania was "neither poor nor good". Low security level of drivers, trucks and cargo was determined by: 1) obsolete vehicle fleet; 2) insufficient control; 3) small number of persons responsible for control.

When evaluating the situation of the end of 2010, the majority of respondents discerned obvious improvements determined by: the increased role of supervising institutions; more frequent checks of HGV; renewal of the vehicle fleet, reduced number of thefts (resulting in the improved security of drivers) and recruitment of competent

drivers (competence is related to the ability to "feel" the situation and with the knowledge on how to behave in a specific situation).

One of the respondents was of different opinion, yet it was very important: by comparing the two periods, he noted that in Lithuania security situation of trucks in Lithuania was better in 2005–2006. According to him, during the above period companies could allocate more funds to technical supervision of vehicles compared to the end of 2010 (consequence of economic recession).

The worst and unchanged situation is till in Russia and Belarus, the best situation is in B group countries. Germany and Scandinavian countries have been distinguished as most secure countries for drivers, cargo and trucks.

The overall (in all countries) improvement of security is determined by: improvements of infrastructure, better cargo securing, introduction (and functioning!) of technical solutions and stricter control.

While assessing security situation in separate group countries, the best assessments were given to B group countries (2–4 points – good or very good). The lowest points, as usually, were given to Russia and Belarus because of bad condition of infrastructure in Eastern countries (negative impact on security), constant thefts (drivers receive special instruction guidelines marking stopping spots). Average assessments were given to Lithuania, Latvia and Estonia, whereas in Poland the situation is worse. In Lithuania and in neighbouring countries thefts are not frequent. Renewal of the vehicle fleet contributes to the assurance of security in the countries.

According to the respondents, by the end of 2010 the situation in the sphere of security has improved in the countries of groups A, B, and C; yet it is difficult to say anything about the D group countries (see picture xxx) since it is impossible to prevent drivers, cargo and vehicles delivering cargo via these countries from thefts or vehicle breakdowns due to the bad quality of roads in Russia and Belarus.

Developments and/or programmes which have most improved HGV-related security in border-crossing traffic over the past 5 years

Experts' motivation and comments are presented in Annex 16.

The majority of respondents didn't answer the question about the changes and programmes which most improved or deteriorated the HGV-related security in the border-crossing traffic during the recent 5

years. According to them BSR borders do not exist anymore (EU), thus there is no border-crossing control. Anyhow, some of respondents indicated the changes which contributed to the improved situation in **Lithuania**.

- Fleet renewal (more secure vehicles);
- Lithuanian carriers started acquiring new trucks (until the year 2005 Lithuanian companies used to buy second-hand HGV from foreign countries);
- Less intensive traffic during the period of crisis;
- Implementation of TAPA standard.

In the Baltic Sea Region:

- Introduction of more strict requirements provided for the renewal of the vehicle fleet (except in B group countries which have a new vehicle fleet);
- Implementation of TAPA, GPS and other information technologies;
- Simplified customs procedures;
- Establishment of adequate transport servicing culture.

Developments and/or programmes which have most deteriorated HGV-related security in border-crossing traffic over the past 5 years

Experts' motivation and comments are presented in Annex 17.

Certain contradictions could be discerned in the respondents' answers. According to some of them, control was tightened at the borders; the others said that control has decreased. Maybe this contradiction was due to the identification of different weaknesses: in the first case respondents wanted to highlight that more tight control determined lower throughput, in the second case – that volumes of smuggling increased because of the reduced control.

When assessing the overall deteriorated security of drivers, trucks and cargo in Lithuania, respondents mentioned economic and financial situation. According to them, lack of funds prevented from maintaining good condition of vehicles and determined lower level of security.

Changes which most deteriorated security situation in the BSR were not mentioned by respondents or indicated the same as in Lithuania, i.e. queues due to low throughput capacity, and smuggling. Changes which affected the HVG-related security in Lithuania and in the BSR included: non-compliance with AETR regime and requirements by saving costs at the expense of drivers during the crisis period, more thefts (fictitious carriers).

The most relevant security risks in the international road transport

Experts' motivation and comments are presented in Annex 18.

Respondents found difficult to answer this question and identify the most relevant security risks (for people, cargo, vehicles and cargo documentation); therefore their answers were short and with few comments. They included:

People's security. The following main security risks have been identified both for Lithuania and for the BSR: bad condition of road infrastructure/vehicles and lack of parking lots (higher risk of thefts). Respondents also highlighted the human factor: drivers lack knowledge on how to behave in unexpected situations and often violate road traffic rules.

Cargo security. Assessment of the situation in Lithuania and in the BSR is the same. The main security risks for cargo occur due to bad condition of road infrastructure (higher probability that cargo will be damaged) or lack of parking lots (higher probability that cargo will be lost/stolen. Adequate cargo securing, distribution and transportation/ loading also affect cargo security. Respondents also mentioned CMR insurance: holding/absence of insurance is related to the amount of the incurred loss (availability of insurance might cover part of loss).

Vehicle security. One of the main security risks for vehicles is bad condition of roads resulting in road accidents. When listing the risks in Lithuania and BSR respondents indicated overloads affecting the condition of vehicles.

Two main security risks have been identified in the Baltic Sea Region: the selected type of vehicle for a specific load and technical condition of vehicle. According to one of the respondents, vehicles might be damaged in case of thefts (damages are inevitable).

Security of cargo documentation. The main security risks relevant for cargo documentation (in Lithuania and BRS) are: incorrectly completed documentation; non-compliance with actual figures, lack of data in the documents. One of respondents noted that practice of forged documentation still prevails in Lithuania. Factors directly related to the security risk for people (drivers) in the international road transport include: dangerous cargo and inadequate cargo securing, violations of rules and accidents. Direct threats for cargo are imposed by thefts, insecure parking lots, unfair staff, inadequate cargo securing and accidents. Direct threat to vehicles comes from drivers (irrational way of driving, technical disturbances and accidents). Cargo documentation might get wet, smeared or lost.

Factors most related to security risk for people in the international road transport include: experience, qualification, pressure of customers and non-compliance with AETR rules.

Cargo is mostly exposed to risk because of the use of the obsolete securing elements (especially in Russia and Belarus), pressure of customers, thefts and bad cargo securing.

The main security risk for vehicles, including semi-trailers, is due to overloads, the use of worn-out tires, tent cutting and the increasing value-to-weight ratio of cargo.

The majority of respondents didn't provide the answer to the question on security risk in the international road transport. According to one of them, there is no direct impact, except in case of transportation of dangerous goods.

Materialisation of security risks

Experts' motivation and comments are presented in Annex 19.

By trying to answer where security risks mostly materialise, the majority of respondents provided similar answers. They found more difficult to identify the involved "actors".

According to the majority of respondents, geographically security risk usually materialises in Russia and Belarus; one of respondents said that it is not possible to specify one geographical area since different risks are characteristic of different regions.

Two different opinions emerged when identifying the risks in the supply chain: according to some respondents, the major risk occurs during cargo transportation (i.e. when cargo is under responsibility of carrier), according to others, the main risk is related to storage or cargo handling/reloading (i.e. when shifting from one transport mode to another or while reloading the cargo: warehouse-truck, truck-warehouse).

Respondents indicated different "actors" involved in the emergence of risk. Some of them said that every new actor in the supply chain might affect the situation; the others noted that driver training schools have major impact (they should be interested in better training of future drivers which could reduce the risk of accidents). Respondents have also highlighted officers and representatives of relevant institutions (e.g. SRTI). Their unfair behaviour and corruption provide for violation of rules and impose higher risk to drivers, cargo or trucks.

When identifying security risk with respect to time, respondents highlighted the period of winter (bad weather conditions (slippery roads) determine higher accident rates). November–December are the months when flows and traffic jams increase. The most risky week days are weekends and the dark period of day when drivers are less concentrated. One of respondents indicated spring as one of the most risky seasons (this is also relevant for Russia and Belarus: here the requirements for axle loads are changed in spring).

Geographically security risk materialises depending on the transportation distance and country of destination. The risk increases when going to remote places or to lower traffic safety countries. In the supply chain the main risk is in the road, i.e. during transportation, loading/reloading of cargo. Shippers and carriers directly related to transported and packed cargo are also related to possible security risk. The main risk occurs in winter time, under bad traffic conditions, at night, during holidays (higher transportation flows).

Regarding materialisation of security risk, most often accidents are registered in the road sections with least traffic control and worst road condition (rough road surface). More accidents are also registered within the territory of the country but not at border crossing points. The major risk countries are CIS states, especially Russia and Belarus.

In the supply chain the major risk occurs when cargo is in the truck (transportation process) and when vehicle is standing (e.g. in the rest areas, in the intermodal links).

According to respondents, the following actors are involved: carriers, shippers, receivers, mediators, owners and insurers.

The time when security risk is very high is night, holidays, weekends (especially the night from Sunday to Monday), and the beginning of winter. In order to avoid control some carriers prefer to drive on weekends (less supervising officers). On the other hand, traffic is not intensive during night time.

9 CONCLUSIONS

When assessing the situation on safe transportation of goods by road related to the Lithuanian and BSR transport market, the following conclusions could be made:

- The Lithuanian road transportation market has the tendency of recovery after the economic and financial crisis. The HGV fleet has undergone a significant renewal: more than 30 percent of vehicles have EURO-4 and EURO-5 certificates.
- Lithuanian transport companies operating in the BSR and the EU market are small: on average 7 HGV/company, yet they remain competitive by offering high quality services.
- Most profitable are the companies owning HGV suitable for dangerous and perishable goods transportation.
- Big transport companies are extending their service package and in parallel to transportation are proposing logistics service package or dedicated services to customers.
- The main positive changes in the field of road safety for Lithuanian transport companies are related to better road infrastructure and transportation conditions, well organized Road transport police, work of the Lithuanian Road Transport Directorate inspectors according to the EU directives, coordination of driving and rest hours regime in the EU and other countries.
- As most problematic are identified the delays at the Latvia– Russia, Lithuania–Russia and Lithuania–Belarus border crossing control points, big corruption in Russia and Belarus between customs and police officers.
- Driver security and cargo safety are still the first priority for Lithuanian transport companies, both prior to customs control as well as during cargo transportation in Russia and Belarus.
- The control of transport inspectors and road police officers is becoming more strict and imposes higher penalties; this enhances traffic safety and driver security in Lithuania.
- Driving and rest hours are considered as the most problematic regulatory issue in relation to traffic safety.
• The overall road safety situation in Russia and Belarus is quite bad. The operational quality in Russia and Belarus is lower than in other countries: HGV drivers more often use alcohol and drugs.

Market of the international road freight transport

- Availability of the international HGV road transport capacity in separate countries was evaluated differently, yet major changes during the period under analysis were not discerned: according to respondents the changes in the availability of capacities were most determined by the economic crisis, but it was not included in the period under analysis (signs of "recovery" were observed by the end of 2010). Within the context of capacity availability the best situation is in B block countries, the worst in Russia and Belarus. The above assessments were determined by technical condition of the vehicle fleet.
- Operational quality of companies during the period under analysis has improved nearly in all BSR countries, but major changes were observed in C group countries. In this respect and due to better condition of infrastructure and more advanced vehicle fleet best assessments were given to B group countries (here operational quality is high). Due to prevailing stagnation the lowest points were given to D group countries
- Economic entities worked more profitably in 2005–2006 compared to the end of 2010; after "overcoming" the crisis they didn't manage to reach the initial level; besides lower profitability was also determined by growing prices of energy resources which increased transportation costs. Yet the latter factor is relevant not for all countries: in Poland and Russia fuel prices are lower, therefore their companies can reduce transportation price and work more profitably;
- When drawing the parallel between competitiveness and profitability, in 2005–2006 carriers of all countries (except D block countries) received the same assessment: "neither poor nor good". By the end of 2010 competitiveness of companies was related to lower transportation costs and high quality, therefore highest points were given to Polish carriers (low fuel prices). The worst situation in this respect is in B and D group

countries: carriers of Russia and Belarus lose competitiveness due to low quality, the Western countries due to high prices;

- The autumn season of 2010 was not the most successful for the Lithuanian transport market: the respondents mostly spoke about growing demand. Yet the autumn season cannot be evaluated unambiguously: usually supply is higher during the first part of autumn, the demand (pre-holiday period) during the second part.
- During the recent years many changes occurred in freight transport market, but the most significant are: increased number of transport company bankruptcies and reduced vehicle fleet. The market during the above period both expanded and shrunk (natural selection – only the strongest survived). This was determined by the economic factors (global recession);
- The current market conditions have positive impact on the Lithuanian freight transport market: the volumes of export, import and transit flows are increasing; the vehicle fleet also expanded.

Traffic safety in HGV border-crossing and its enforcement

- The level of the structural regulation framework of the international HGV transport is improving in the entire BSR (except D block). This was determined by the increased role of supervising institutions, application of more strict administrative measures and upgraded infrastructure. Highest assessments were given to B group countries where traffic safety awareness has been developed for many years and is stable;
- All countries better comply with the requirements than during the period of 2005–2006. Compliance with traffic safety requirements in Scandinavian countries has always been the best. The least progress was made by D group countries: here corruption and abuse is widely spread among the officers, therefore compliance was evaluated as "poor";
- After ranking and revising the data it turned out that the most problematic regulation spheres with respect to safety in Lithuania are: driving and rest time regime and over speeding; these requirements are not observed by the carriers of both, Lithuania and other countries (despite the imposed strict requirements). According to respondents, carriers (especially foreign) do not observe these requirements since their main goal is to cross the border and reach the destination as soon as possible.

Traffic safety and safety culture in border-crossing freight transport

- The overall traffic safety situation is improving: in 2010 traffic safety situation in A and C group countries was much better, whereas in D group countries it has improved inconsiderably. According to the majority of respondents the highest level of traffic safety is in B block countries;
- The level of safety culture by the end of 2010 was much better than in 2005–2006 with respect to all group countries (except B group). The highest level of safety culture is in B group countries, since traffic safety awareness has been developed in these countries for many years. Scandinavian countries have been distinguished in this group. The worst situation with respect to safety culture is in Russia and Belarus (lack of education and public awareness raising);
- All respondents highlighted the same changes which most contributed to HGV safety during the recent 5 years both in Lithuania and in the entire BSR region: more strict control, implementation of innovations and new programmes, and application of repressive and preventive measures;
- In Lithuania and in the entire BSR traffic safety was most deteriorated due to long queues because of the lack of throughput in border-crossing posts.

Security of drivers, trucks or cargo in BSR

- The overall security situation related to the HGV traffic was still the worst (practically remained unchanged) in Russia and Belarus; the best in B group countries was Germany and Scandinavian countries. They've been distinguished as the most secure countries for drivers, trucks and cargo. The overall security improvement (in all countries) was determined by: infrastructure improvements, better cargo securing, implemented and operating technical solutions and more strict control;
- The following changes most contributed to the improvement of HGV security situation: improved condition of road infrastructure, more strict control in the roads and more active police;

- Respondents indicated the same changes which most deteriorated security situation in Lithuania and in the entire BSRL: queues due to bad throughput capacity and smuggling;
- The most relevant security risks (in Lithuania and the entire BSR) include:
- For people (drivers): bad infrastructure/condition of vehicles, lack of parking lots;
- For cargo: infrastructure, cargo securing, distribution and specific character of transportation/loading.
- For vehicles: bad technical condition of roads and vehicles;
- For cargo documentation: improper data and document forgery;
- Security risk usually materialises:
- Geographicaly: in Russia and Belarus;
- In the supply chain: during transportation and storage;
- Involved "actors": every actor occurring in the chain, and training institutions;
- With respect to time: in winter time, during weekends and the dark time of the day.

REFERENCES

- Alvarez-Tikkakoski, E. Solakivi, T. Ojala, L. Lorentz, H. Laari, S. (2010). Compliance and Enforcement of Regulations of International Road Haulage. Explorative findings in the Baltic Sea Region in 2009.
- Bazaras, D. Palšaitis, R. (2009). Logistics situation in Lithuania revisers' point of view. Reliability and statistics in transportation and communication (RelStat-09), 21–24 October 2009, Riga, Latvia. ISBN 9789984818221. p. 44.
- Bazaras, D. Palšaitis, R. (2011). The impact of the market structure on safety and security in BSR: Lithuania point of view. Reliability and statistics in transportation and communication (RelStat'11): proceedings of the 11th international conference, 19– 22 October, 2011, Riga. ISBN 9789984818467. p. 173–175.
- 4. http://cash-project.eu/en/.
- Kabaskin, I. Yatskiv, I. Kryukov, Y. Medvedev, A. (2011). The Market structure Analysis for International Road Freight Transport in Latvia. 37 p. CASH report. 2; ISBN 978-952-249-086-5.
- 6. Lietuvos kelių policijos tarnyba: http://www.lkpt.lt.
- Lietuvos Respublikos Vyriausybės nutarimas "Dėl ilgalaikės (iki 2025 metų) Lietuvos transporto sistemos plėtros strategijos patvirtinimo" (The Government of the Republic of Lithuania Resolution No 692 of 23 June 2005 On the Approval of long-term (until 2025) Development Strategy of the Lithuanian Transport System) 2005 m. birželio 23 d. Nr. 692, Vilnius. Valstybės žinios, 2005-06-28, Nr. 79-2860.
- Lietuvos Respublikos Vyriausybės nutarimas "Dėl Lietuvos respublikos vyriausybės 2010 metų veiklos ataskaitos pateikimo Lietuvos Respublikos seimui" 2011 m. kovo 30 d. Nr. 371, Vilnius. 2011-04-05, Valstybės žinios, 2011, Nr. 40-1922.
- 9. Lithuania Statistics department: www.stat.gov.lt.
- 10. Lithuanian Market Research. http://www.reportbuyer.com/countries/europe/lithuania/index.html.

- 11. Lithuanian Road Administration under the Ministry of Transport and Communications of the Republic of Lithuania http://www.lra.lt/en.php/about_lra/general_information/101.
- 12. Ministry of Transport and Communication of the Republic of Lithuania: http://www.sumin.lt/.
- Palšaitis, R. Bazaras, D. (2007). Theoretical aspects of logistics training process management. Transport 22(1): 14–18. Vilnius: Technika. ISSN 1648-4142.
- 14. State Road Transport Inspectorate under the Ministry of Transport and Communications: http://www.vkti.gov.lt/go.php/lit/eng.
- 15. Statistics Lithuania. *Transport and Communications.* (2010). ISSN 2029-5863. 181 p.
- White Paper (2010). European transport policy for 2010: time to decide. Commission of the European Communities, Brussels, COM(2001) 370 final, 2010.

Question 1.1 Motivation and comments (e.g. reasons for changes and/or differences between the countries and types of cargo, and special purpose equipment etc.) by experts (in random order):

- A. While comparing these periods it was defined that although the number of vehicles has decreased it was not as high as the decrease in freight volumes, therefore the availability has improved according to shippers. Compared to the period of crisis, volumes of freight have increased.
- **B.** If there is demand, the supply is ensured; therefore the years 2005–2006 are evaluated positively. Today the size of the vehicle fleet has reduced in many places and it is difficult to find suitable transport.
- **C.** The number of carriers has currently decreased; therefore the situation was better during the period of 2005–2006. Restrictions in the weight of HGV are set in the countries of D group.
- **D.** Availability of capacities in all countries is similar since the market itself "regulates" the demand and supply.
- E. In Norway price jumps in winter time (less vehicles), situation in Russia and Belarus is bad due to political motives; Poland cannot agree with Russia concerning the permits to enter Russia. In general availability is improving.
- **F.** Trade balance, the level of service development, licensing.
- **G.** The main motive for the assessment was related to the D group countries (RUS and BY): axle load is restricted in these countries: limited availability etc.
- H. Insufficient enforcement of market economy in RU and BY; the Baltic States (LT, LV and EE) still lag behind from other (Scandinavian and Western) countries.
- I. Relations with Russia have improved; more carriers compensated the loss for Europe.
- J. Export capacities have improved in 2010 in comparison to the former two years. Shippers had more possibilities in selecting transport capacities in 2005–2006. Lack of transport in all countries in 2010.

- K. Road transport market in Lithuania is well developed and 1) meets domestic needs; 2) successful competition with foreign countries; 3) a wide spectrum of services is proposed; 4) well adjusted infrastructure, thus accessibility of HGV capacities is well evaluated in Lithuania. The respondent didn't discern considerable progress when comparing the above two periods, thus the change is not significant. He didn't provide the opinion concerning availability of capacity during the period under analysis (his work is not directly related to carriage by road transport).
- L. No problems to find transport in A and B country groups; in C countries: small market, scarce transportation volumes Latvia and Estonia; D group: lack of people intending to go to these countries because of the problems with officers of relevant institutions (Transport Inspectorate, Customs).
- **M.** The period of 2005–2006 was successful for transport in Lithuania: the demand has increased, and companies supplied themselves with capacities. From the shipper's position it availability was good. According to respondent similar situation was observed in the entire Baltic Sea Region (except in Russia and Belarus). He added that in 2010 transport sector started recovering; the increasing demand was satisfied by the existing capacities.
- N. Availability is different due to different level of technical culture (e.g. companies declare provision of transport services but are not able to check the received orders or fail to fulfil the orders); different responsibility of drivers: sometimes drivers do not reach all loading areas (they collect part of freight but other consignments remain uncollected). Availability of transport capacity in Scandinavian countries is quite low due to high tariffs of services; therefore they are not highly demanded.
- **O.** Changes were determined by the 2008 crisis, the reduced vehicle fleet and the number of small carriers.
- P. Satisfied with the availability: during the period of 2005–2006 the availability in Lithuania was good (despite the fact that the ownership of capacities belonged to financial institutions). According to respondent, in 2008 satisfaction in the availability started decreasing and by the end of 2010 it was very low. The respondent highlighted Poland from the countries of C group and noted that in this country satisfaction in the availability has always been high (another curve of economic development). The

worst situation is in Russia: here satisfaction in the availability is decreasing. The best situation is in the Scandinavian countries.

- **Q.** Transport is highly developed in Germany and Denmark; less developed in the Scandinavian countries. Lack of transport in RU and BY; they are unable to serve their market (Poland should be in the different group from Latvia and Estonia).
- **R.** Lithuania is capable of transporting much more freight, yet transportation volumes are limited due to the system of permits and quotas. Price is not competitive in the group of B countries compared to other states. In the group of D countries situation has improved slightly due to the availability of more information and the renovation of the vehicle fleet. Poland is in the C group; here availability of capacities is better than in Latvia and Estonia.

Question A.2.1. Motivation and comments (e.g. timeliness, absence of damages) by experts (in random order):

- A. Quality in 2010 improved in many countries. Poland managed to significantly improve quality due to higher supply of carriers. In Lithuania only the large companies retained high quality, yet smaller companies are more flexible. Operational quality of B group countries was better earlier than now.
- **B.** Quality is improving in all countries. It is constantly very good in the Scandinavian countries due to very strict requirements.
- C. Cargo violations in LV, PL, non-compliance with deadlines in RU.
- **D.** Level of operations is higher in A, B, C group countries (developed countries, members of the EU, higher economic level, more new cars, better developed infrastructure etc.). The above factors are less developed in the Eastern countries.
- E. The level of operational quality in D group countries is worse due to border-crossing queues. Group C: best service providers after the market crisis; this determined quality improvements compared to 2005–2006. Group B: quality level has always been good; these countries managed to retain growth of trade volumes.
- **F.** Timely execution of operations and handling. Probable delays, cases of thefts or disappearance.
- **G.** The main motive with respect to D group countries: bad level of operational quality in Russia and Belarus is determined by a weak transport fleet and obsolete vehicles.
- **H.** Lack of competition; market partitioning in RU and BY; A and C group countries lag behind the Scandinavian countries (except EE).
- I. Quality level is good and is slightly increasing. If there are no disagreements concerning pricing, level of quality is the same. Quality also depends on accurate accounts.
- **J.** In A, B and C group countries the vehicle fleet has nearly remained unchanged, or even worsened. D group countries invest money to the improvement of fleet and IT.

- K. Quality is improving in all the countries. Quality in Scandinavian countries is good always because of the strict requirements. Foreign capital (e.g. Hellmann logistics). D group countries (e.g. Russia) acquire more experience and reach mutual understanding.
- L. The operational level of HGV road transport didn't change in Lithuania due to non-timely submission of the actual operational results and information, avoidance to pay taxes and black economy. All the above prevent from quality improvement and determine quality decline. Respondent didn't provide the opinion on the prevailing quality level in other countries.
- **M.** No problems in A, B and C group countries, all operations are in line with the CMR Convention. Delays in D group countries (on average 7 times out of ten).
- N. Western countries have better infrastructure and can provide higher quality services (with respect to security). The respondent highlighted Russia and Belarus as the states with still prevailing high stagnation and evaluated operational quality of companies as poor.
- O. High operational quality in the Scandinavian countries due to high quality of people's culture and high level of transport technologies. Operational level of LT is slightly higher than average and depends on the involved personnel and management level. Level of operational quality in BY has been rapidly developing but is still low: quite a big number of vehicles are purchased but technologies are usually old and qualification level of employees is not high. All the above determines low operational level. LV operations are similar to those in Russia since Latvia has quite a big number of the "Russian capital" enterprises. In PL companies work quite efficiently and their operational level is similar to that of LT.
- **P.** C group countries are evaluated more negatively due to low quality of loading/unloading operations.
- Q. Operational quality is perceived as the assurance of time and safety factors. Quality by the end of 2010, compared to the period of 2005–2006, improved both, from the technical point of view (e.g. due to more tight requirements for vehicles) and with regard to management (traffic restrictions). Most advanced countries are B group countries, least advanced – Russia and Belarus (declarations instead of actions).
- **R.** The expert defined quality level by assessing delays, absence of damage and proper arrangement of vehicle documentation.

Question 3.1. Motivation and comments by experts (in random order):

- **A.** One of the motives of the evaluation is the currently increasing costs. Situation in Russia is better due to increasing transport capacities. Poland is separately evaluated in C group.
- **B.** In 2010 in Lithuania profitability is much lower, except several large international companies. Recovery is observed in 3rd quarter. More data is to be submitted later for the assessment. During the period of 2005–2006 nearly all companies worked profitably, except the newly established companies. According to the respondent, similar situation was in the entire Europe.
- **C.** The period of 2005–2006 was a period of economic growth in Lithuania; in 2010 the signs of recovery were observed.
- D. Different economic situation: the economy in Scandinavian and Western European countries is higher, in Eastern countries lower. The majority of A, B and C group countries are EU Member States, thus their situation is better, including more favourable cooperation conditions. All the above influences higher level of profitability.
- **E.** D group countries: seasonality is still one of the main factors. The increase of demand was recorded since 2006; market actors expanded their truck fleet and this determined better market coverage. Reduction of profitability was determined by the crisis.
- **F.** High margins of companies delivering freight to/from CIS countries. Different business profit and reserves for logistics expenses. Different perception of business by carriers.
- **G.** The years 2005–2006 were not bad for Lithuania compared to the current situation. Currently transport undertakings are recovering after the economic downturn. There are doubts concerning the activity of Russia's HGV road freight transport.
- **H.** Crisis situation in Russia diminished; high service tariffs; competition; public companies prevail.
- I. Market changes determine lower transportation prices and higher fuel prices.
- **J.** Recession, increase of fuel prices (in the entire EU). In Russia and Belarus the situation is improving.

- **K.** In November 2008 the "bottom" was reached in the transport sector. Very low profitability of transport undertakings in 2009, whereas the year 2010 was the best in transport sector.
- L. The period of 2005–2006 is related to the period of "recovery", therefore Lithuanian companies worked profitably during this period. The respondent compared this period to the "bubble" growing, when, in order to increase effectiveness of operations, companies take all efforts to get resources and other devices (buy new cars, take bank loans etc.), yet, the respondent also said that results improve only to a certain extent, i.e. until the "bubble" blows. That's what happened in 2007: with the beginning of the economic recession demand of carriages has decreased and companies were not able to use their capacities and pay loans. Consequently, profitability has decreased significantly. Consequently evaluation of profitability of companies didn't cover the period of recession which could have better revealed the situation. At the beginning of 2010 profitability has slightly increased (period of "recovery", but not as high as to reach the initial level.
- M. During the economic recovery the situation was good, the peak was observed in 2007. Situation was similar in A and C group countries (neighbours). In D group countries situation was neither bad nor good, since states are large and have many small carriers.
- N. Profitability level in Scandinavian countries is higher than in other countries, however it is not high according to their levels; therefore the assessment cannot be very high. In 2005–2006 in LT profitability level was quite high due to general rapid economic growth. Profitability of BY companies is high due to cheap labour force, vehicles and fuel.
- **O.** Latvia and Estonia got lower assessments because of the low freight level. Lower Lithuania's assessments were due to the reduced freight flows to Lithuania.
- P. In 2005-2006 carriers of all countries worked less profitably. The most profitable carriages could be performed in Russia and Belarus, but the level of risk is different in these countries (it is much higher).
- **Q.** In Lithuania economic recovery was observed in 2005–2006 and determined transport development and profitability. Another recovery after the downturn was observed in 2010.

Question 4.1. Motivation and comments by experts (in random order):

- A. C block is most competitive (major competitors for Lithuania). Poland, which is most competitive, is highlighted separately. Russia and Belarus are also competitive: the main motive is cheaper fuel determining lower costs. B block was not assessed.
- **B.** Competition among carriers is very high. Lithuanian carriers' companies are recognised and evaluated in the entire Europe due to low prices (lower work remuneration costs etc.). European carriers are competing not with prices, but with quality, guarantees and the set of services. Russia and Belarus use older vehicles and are not competitive in the European market (don't comply with ecology requirements).
- **C.** In 2005–2006 competition was higher, now it is decreasing. Lack of carriers.
- **D.** In 2005–2006 lots of cargo and many carriers. In 2010 small number of carriers and lower volumes of cargo.
- E. The level of competitiveness inside the countries is similar but differs between the countries. For a country to compete with foreign states is more problematic than with companies of own country (especially for weaker countries, e.g. for Lithuania). It is difficult to define the level of competitiveness since none of the countries is more competitive than the other country. For instance, competition between Lithuania and Russia: when situation is "good" for Lithuania, it is "bad" for Russia and visa versa.
- **F.** Competition was lower in 2005–2006, yet after the crisis in the market the number of companies has decreased, only the best survived. Prices have increased.
- **G.** The main motive concerning competitiveness in Lithuania is that carriers of none of the countries cross Lithuania by transit.
- **H.** In RU and BY competitiveness among companies is lower due to market partitioning (BY) and wide domestic market.
- I. LV and EE could be distinguished from C group, since their competitiveness dropped down, whereas in PL it increased. B group countries work well in other regions. Besides, the countries

are in a worse geographic situation and transportation costs are higher. D group countries lack behind with respect to fleet quality and work quality of the personnel.

- **J.** The EU opened the borders, simplified requirements and provided more opportunities. Due to recession, in 2010 many carriers reduced fleets or went bankrupt. Vehicle fleet and transportation volumes increased in D group countries.
- **K.** Compared to the current situation, in 2005–2006 competition was higher. Lack of vehicles. Long queues to purchase a new truck. High transportation demand. Significant decrease in transportation supply.
- L. Competitiveness of Lithuanian companies decreased together with profitability. The loss of competitiveness is related not only to the economic crisis but also to the prices of energy resources which jumped significantly during the recent years. According to the respondent in this respect the most competitive are Russian and Belorussian carriers, since fuel prices in these countries are lower.
- M. In A group countries competitiveness decreased, many companies went bankrupt. In C group situation is similar as in Lithuania. In D group situation is very bad, since countries are large, and the number of carriers is too small (practically there is no competition).
- N. Growth is observed in 2005–2006. All companies pursuing this activity were more or less competitive. Only the strongest survived after the economic crisis, i.e. the companies which optimised their operations (e.g. effectively distributed funds). Consequently, their competitiveness by the end of 2010 increased. Poland has made major progress during this period.
- **O.** Most competitive companies in RU, since the country pursues the policy establishing unfavourable conditions for other countries. Companies of Scandinavian countries are not competitive due to high prices. Low level of competitiveness in LT due to inadequate foreign policy.
- P. In 2005–2006 the number of vehicles and carriers has been increasing rapidly and tariffs strongly fluctuated. In 2010 the level of tariffs stabilised; competitiveness was influenced by seasonality.
- Q. Competitiveness of companies should be related to profitability, i.e. to transportation costs. Currently Scandinavian countries are least competitive due to high transportation costs, whereas

Poland in this respect has become very competitive: here transportation costs are much lower that in many other countries.

- **R.** No competition in Lithuania, since majority of Lithuanian carriers work abroad. More competitiveness in B and D group countries (transportation is executed by own carriers, they compete among themselves).
- **S.** Large markets in D and B group countries, smaller markets in A and C group countries.

Question A.5. Assess the balance between supply and demand in the international road transport in Lithuania in autumn. Experts' opinions (in random order).

- A. During this period the demand was higher; export recovered; yet, the vehicle fleet has reduced in many countries; this determined the lack of supply.
- **B.** Supply exceeded demand.
- **C.** Demand exceeded supply. Lack of carriers. Cargo is available but there are no vehicles to deliver cargo.
- D. Demand 60%, supply 40%.
- E. Huge cargo supply. Lack of vehicles.
- **F.** Demand exceeds supply. Currently prices are increasing (price fluctuation). Whereas in 2009 prices reached "the bottom".
- **G.** Increased consumption determined the increase of demand; having solved the problems of the current situation, the transport sector didn't hurry to increase the supply. This determined temporary jump in transportation prices.
- **H.** No supply and no demand. In general the situation during this period was not good.
- I. Demand has increased compared to 2009.
- J. Higher cargo supply.
- **K.** Supply slightly higher.
- L. Demand is by 20% higher than supply.
- **M.** High transport demand, lots of cargoes but there are no vehicles to deliver cargo.
- **N.** In autumn of 2010 there was more supply than demand in Lithuania. When evaluating the current situation the respondent highlighted that currently (in 2011) the demand is higher.
- **O.** Demand was higher than supply. Lack of transport.
- P. The season of autumn should be split into two periods: during the first period (September) the demand and supply were more or less equal, and during the second period (November) the demand exceeded supply.
- **Q.** Higher cargo supply, significant lack of vehicles.
- R. Transport demand was higher than supply (lack of vehicles).

- **S.** When evaluating the entire season the respondent said that there was balance between the demand and supply; he also noted that by the end of 2010 the demand was higher (it was determined by the increased export volumes).
- T. Demand considerably exceeded supply.
- **U.** Situation was very good for Lithuanian carriers due to disagreements between Russia and Poland concerning permits; demand exceeded supply.

Question A.6. What were the main changes in the market structure of the international road freight transport in Lithuania during the past 5 years? (in e.g. average sales, number of employees or units per firm, national or cross-border mergers & acquisitions, bankruptcies, consolidation of logistics services, foreign companies...)?

- A. Many bankruptcies, reducing number of companies.
- **B.** Efforts are taken to increase operational effectiveness and offer a better service package.
- C. Number of companies and employees has decreased. The majority of companies either went bankrupt or merged (joined international networks). Some companies acquired DSV. Consolidation of logistics services. Efforts are made to offer a wide spectrum of services (service package).
- D. In 2005–2006 the number of companies has increased due to high transport demand. Foreign capital entered Lithuania, sales volumes increased. Many bankruptcies in 2008; the supply and sales have decreased. Recovery in 2010.
- **E.** Growth during the first two years (2005, 2006): market development, purchase of vehicles, establishment of companies, recruitment of employees, increasing tariffs etc. Growth stopped in 2008. Another wave of growth in 2010 and 2011: tariffs and cargo supply have increased
- F. Market has been developing during the period of 2006–2008 (until the crisis), including increased sales volumes and the number of employees. In 2008 the growth has stopped, many companies went bankrupt because of the crisis. Service consolidation is observed after the crisis, only the strongest actors survived in the market.
- **G.** Competition between logistics services. Signs of 3PL business. Reduction of logistics costs.
- **H.** Market was growing and expanding. Only the strongest carriers survived during this period.
- I. The number of companies and vehicles, which has been increasing up to 2008, has considerably decreased. This was due to the crisis which resulted in the bankruptcy of many

companies; some companies merged. It has become popular to offer consolidated services. According to experts, such a situation will continue for 2–3 years.

- J. Combined and intermodal transport is used more frequently.
- **K.** Due to the crisis the number of companies and employees has decreased. The role of forwarders has increased; the size of goods consignments reduced. More transportation of partial cargo. Services are consolidated.
- L. The number of companies has increased until 2007–2008 alongside the developing economy, increasing number of carriers and expanding fleets etc. Afterwards this number decreasing.
- **M.** Growth and development of logistics centres. Significant decrease in the number of forwarders. High number of transport companies which went bankrupt (fake or real bankruptcy). The number of employees changed slightly.
- N. Lithuania experienced many changes during the recent five years, including: 1) very big number of bankruptcies (especially among small companies); 2) reduced sales volumes;
 3) consolidation (in order to survive, companies had to merge or pursue common activity); 4) reduced number of employees. According to respondents, during the last half year the signs of "recovery" have been observed.
- **O.** The number of companies and vehicles has decreased; surplus drivers. Companies merged into consortiums or sold themselves to other companies.
- P. The main changes during the crisis period are as follows: 1) major Lithuanian forwarding and logistics companies (especially the ones the main part of the service package of which was warehousing services) went bankrupt or sold part of their shares to foreign investors; 2) after refusing permits and visas transportation procedures to certain countries were simplified.
- **Q.** Lithuanian carriers lost their positions in the entire Europe; the entire segment of the activity and market has reduced considerably.
- **R.** Crisis in 2008; reduced number of carriers, significant reduction in the number of small carriers, large carriers started working more successfully; the number of employees in the transport sector has increased.

- **S.** The main changes in 2008–2009 included: 1) significant increase in the number of transport company bankruptcies; 2) transport fleet of companies has reduced by 30 percent.
- T. So far Russia is short of carriers, therefore Lithuanians has enough work. In 2005–2006 the number of companies increased, many non-competitive actors emerged in the market; they disappeared together with the beginning of "difficult times". No cross-border mergers. Big number of bankruptcies determined by amateur actors and swindlers. No consolidation at all. It'll start together with competition.
- U. Many company bankruptcies in 2009; vehicles bought on deferred terms have not been paid fully; 15–20% companies went bankrupt; now the sector is recovering. Earlier the amount of employees in the transport sector amounted to 80 000; because of bankruptcies their number has dropped down, but now it is again increasing.

Question A.7. which factors determined the changes described in A.6? Experts' opinion (in random order).

- A. Economic factors.
- **B.** Period of economic crisis.
- **C.** Changes in export and import markets, changes in transportation directions and in the customs tariffs and attitudes.
- D. General economic recession and recovery.
- E. General market situation, economic changes, economic downturn.
- **F.** This was due to the demand which has exceeded supply (in 2006-2008) and, certainly, crisis (2008–2009).
- **G.** Changing customers' needs. The need of CIS market for servicing transit flows. Political motives.
- **H.** Situation was determined by the demand and economic indicators (including changes in indicators).
- I. Situation was determined by the overall situation in the region, national transport strategy and support, policy of financial institutions, development of the countries, permit quotes, and development of logistics infrastructure in the countries.
- **J.** A desire to increase competitiveness and minimise weaknesses in transport modes.
- K. Crisis.
- L. The main factor is economy. Transport highly depends on the economy, that is why this sector was the first to experience both the recovery and problems of the economy.
- **M.** Changes in export and import market, changes in transportation directions and in the customs tariffs and attitudes. 30–50% of transport companies opened insolvency proceedings.
- **N.** Shrinking market due to the global economic recession.
- **O.** 1. Economic crisis 2. Attitude of public authorities toward carriers and inability to defend interests. No support was received during the crisis, only the disciplinary measures. Public authorities don't provide any support.
- P. Economic and geopolitical factors.

- **Q.** Huge impact of the economic crisis. Carriers were not prepared for the crisis and didn't know how to manage it.
- **R.** Economic conditions determine changes in the market.
- S. Economic factors.
- T. 1) Lack of permits 3 TKM, since main transportation routes are between Western European countries and Russia. 2) Smuggling, invoice counterfeiting. These factors determined more frequent checks by Russian services (time and other costs).

Question A.8. What were the main impacts of the current market conditions (autumn 2010) on the market and operations of the international road freight transport in Lithuania currently by the end of 2010? (in random order).

- A. Currently companies are expanding the fleet of motor vehicles. The ones which managed to survive, renovate their fleet. By the year 2011 the vehicle fleet should increase by 20–30%.
- **B.** Export volumes are increasing. European economy is recovering, carriers return back to markets where they have been expelled from. Transnational relations. Transport is one of few developing sectors.
- **C.** Carriers look for cheaper fuel sources. Intermodal transport enters the market, containers are delivered by trains. Yet attraction of companies should be more active. European carriers are expected in Kaunas. In 2009 export volumes were very high, it was difficult to find goods for import (from Russia and Belarus) in order to avoid "empty runs".
- D. Today we evidence very high and rapid growth of the transport market; transportation prices are increasing, as well as cargo demand; yet there is still lack of employees (especially qualified). It is difficult to forecast situation in 2011, since market development is currently especially high (unexpectedly); further growth is also expected but nobody knows what happens in the future.
- **E.** Increased demand. Lack of vehicles. But the situation is not bad compared to the period of crisis. Companies which managed to survive are quite successful. It is assumed that such a situation should be also in 2011.
- **F.** Transit cargo had major impact, since currently the mane source of living is received from transit. So far it is difficult to forecast the end of 2011.
- **G.** Recovering economy, increasing fuel prices, state support and strategy, development of infrastructure.
- H. Current time: lack of qualified labour force (prevents from business development); high operational risk, uncertainty and

lack of stability due to external (other countries), common and transnational factors. The end of 2011: the above problems will increase.

- I. Market is well-balanced; Lithuanian customers communicate more with service providers from Lithuania. More attention in the region is given to ecology (packing, vehicles and fuel). In 2011 the above trends should grow. Yet, rapid increase of the demand for services might result in the surplus vehicles, and overfilled market.
- **J.** Demand for transport is increasing; development of Eastern markets creates preconditions for the establishment of company fleets and increases transportation prices.
- **K.** The international market has been obviously recovering, including the increase in the volumes of export and import and improving operations of companies. More revenue is collected from cabotage transport.
- L. The current market conditions should have a positive impact on the freight transport market. An example of Russia and Poland: in the negotiations for the number of permits and in case of lack of certain food products, more favourable conditions are created for carriers from other countries (including Lithuania).
- M. From the political point of view, the terms defined by Russia prejudice Lithuania's interests. Economically, rapid integration in Europe made LT sector less competitive. Social sphere is not favourable to carriers; bad demographic situation would make Lithuanian carriers even more uncompetitive. No major changes are envisaged in 2011: RU would continue to be unpredictable; general economic situation will remain unstable; it is not worth rejoicing about the current recovery, since this is nothing but fluctuation of cycle; the possibility of operational risk still remains.
- N. Assessment of the first month of 2011: changes in the freight transport market are positive, i.e. freight transportation prices are increasing compared to the former periods. Polish-Russian disagreements; improved operations of Lithuanian carriers; cargoes of Polish carriers are taken over.
- **O.** Current increase of export and transit volumes (i.e. increase of transport volumes); this trend should not change.
- **P.** Inability of transnational institutions to reach mutual understanding.
- Q. At the end 2010 markets started recovering, 20 percent of companies went bankrupt and returned vehicles acquired

through financial leasing; currently the demand for tractor vehicles has increased. There will be no major problems until the end of 2011 due to recovering Western markets, whereas in Lithuania recovery is late by 2–3 months. Transportation volumes to Russia are also recovering.

Question B.1.1. Motivation and comments (e.g. regulations, conventions, directions from authorities) by experts.

- A. Traffic safety is quite high in all the countries, since drivers take care of cargo securing, axle load etc. During the recent 5 years traffic safety has improved. HWV (Heavy Weight Vehicle) scales in Klaipeda also contributed to the assurance of traffic safety in Lithuania, including weight restrictions.
- B. The EU established general requirements and rules for the Baltic States, including Poland, Scandinavian and European countries. D group countries follow their "own" rules of procedure. The rules have become stricter in Lithuania (driving and rest regime).
- C. Requirements for safety have become more strict in A and B group countries. In B group countries requirements are stable and strict; high safety level is ensured. Confusion in D group countries. Rules and conventions remain the same. Problems of transnational relations (e.g. disagreements between Poland and Russia) determining inadequate orders issued by public authorities.
- D. Here the most important thing is not state regulation (it exists everywhere and is similar), but the policy the pursued by the states, the philosophy of citizens, their lifestyle, i.e. how they perceive and follow state regulation. The level of economy also has impact on safety: higher economic development determines higher level of safety. Other factors affecting traffic safety: different policy control and activity, the attitude toward police officers and traffic safety (awareness of the importance to follow safety requirements).
- E. In A, B and C group countries the level of traffic safety is good, since all the countries are EU Member States (except Norway, but here the situation is also good). In D group countries the level of safety is very bad (border wait times for trucks determines low level of safety).
- F. Safety requirements in A and B group countries have become stricter. In B group countries regulations are stable and strict; high safety level is ensured. Confusion in D group countries. In

2010, compared to former two years, export capacities have recovered. Strict control of compliance with CMR.

- **G.** Regarding transport safety it is first of all necessary to separate the countries of the C block. The change in the traffic safety in Poland, Latvia and Estonia is evaluated separately. During the above period road network has improved because of security measures. Scandinavian countries managed to maintain high level of traffic safety for many years. The reasons of all changes could be determined by the amendments to the Administrative Code, introduction of the electronic time register, but usually changes are determined by technical measures.
- **H.** Implementation of information system on the delivery of goods to the customs territory in LT and other EU Member States.
- I. There is no control of shippers in Lithuania; therefore the carrier shall bear full responsibility. In B group countries freight loading is supervised. More efficient associations, better infrastructure. The same level in LT, LV, EE and PL, yet the situation is improving slowly.
- **J.** In Russia safety is not an issue of concern, since the state itself is not interested in the improvement (signs of protectionism).
- **K.** Infrastructure improvements in Europe. Practically no changes in D group countries.
- L. In 2005–2006, the accident rate in Lithuania was very high, therefore it would be not correct to give a positive assessment to the state regulation level. Traffic safety positions started improving from 2007 (the number of fatalities in the roads has decreased by about 40%) after the introduction of more strict repressive (higher fines) and preventive (more educational work) measures. The respondent didn't provide his opinion on the state regulation level in other countries.
- M. More strict transport regulation established by the EU shall be applicable to all EU Member States. In Lithuania positive impact was observed after introducing high fines and SRTI checks. The ABC group countries apply the same EU laws and checks. Poland has doubled the number of inspectors. Bribes prevail in D group countries, officers are corrupted.
- N. Safety both during the period of 2005–2006 and by the end of 2010 was regulated through various conventions and regulations. No major changes in 2010 and during the period of 2005–2006: regulations defined in the conventions remained the same; the role of supervising institutions (e.g. SRTI) has

increased. In this respect Scandinavian countries and Poland should receive best assessments, Russia and Belarus – worst assessments (instructions from "the top").

- **O.** When Baltic States joined the EU, customs procedures in transporting cargo to other EU Member States have been eliminated.
- P. During the above period the role of supervising institutions has increased; they started applying more strict administrative measures (e.g. fines) and upgraded infrastructure (road signs, "green waves" etc.). In view of this, the level of state regulation with respect to safety has slightly increased. In Germany and Scandinavian countries it was always higher.
- **Q.** Assessment was determined by the number of carrier accidents. Improvement of the situation was determined by more effective control and more strict penalties.

Question B.2.1. Motivation and comments (execution of the enforcement, scope, congruence between different countries...) by experts

- **A.** All the countries observe the regulations. During the above period BY placed the scales in all border-crossing stations.
- **B.** Although Lithuania signed international conventions, their implementation is not regulated (no control). It is still difficult to ensure adequate marking of freight (e.g. not enough attention is given to such goods as glass cleaners which are considered as dangerous products; no relevant markings).
- **C.** Requirements of safety regulatory framework are met. Safety is one of quality requirements, and it should be pursued (companies having quality certificates do not want to lose them). Safety requirements have become stricter.
- **D.** RU started meeting the requirements and aligning its operation to European rules.
- **E.** Analogous answer to question B.1.1. In the countries with highly developed culture (Scandinavian and Western European), in comparison to our culture (Lithuania and Eastern countries), safety requirements are observed much better. People understand that rules should be observed and this is natural. Eastern countries Differently, in people often violate requirements because of a different attitude toward culture in the roads (similar situation as with bribes in Russia. In Scandinavian countries people don't understand the phenomenon of bribes).
- F. In D group countries it is impossible to observe HGV traffic safety requirements because of bad infrastructure. It is especially difficult to follow driving regime requirements (due to the lack of parking areas drivers cannot stop driving in due time). When Poland introduced road charges, more roads have been renewed. Now it is easy to follow the work regime and this determines higher safety in the roads.
- **G.** Customers' needs and dense market force carriers of certain countries violate traffic safety requirements.

- **H.** Safety problem is not as relevant in practice as it is "declared" in theory (declared in public).
- I. B group countries have more conscious customers; everybody observes the rules; customer's responsibility is included in the transportation contract.
- **J.** State institutions are responsible for strict observance of regulations.
- **K.** Requirements of safety regulatory framework are followed. Safety is one of quality requirements; it is important to observe this requirement (companies having quality certificates do not want to lose them). In case of safety violations strict penalties and imposed.
- L. In 2010 traffic safety regulatory framework requirements were observed better than during the period of 2005–2006. This was due to the higher number of repressive measures (higher fines for violations of road traffic rules) and social advertising (education /awareness raising among traffic participants).
- **M.** In A and C group countries situation improved (more control, higher fines). Situation in B group countries has always been good (old markets); bad situation in D group (high level of corruption).
- N. Scandinavian countries have always been observing safety requirements; they didn't experience major changes. Situation is slightly worse in the Baltic States (LT, LV, EE), since interpretation of requirements is not the same in the BSR. High level of corruption still prevails in Russia and Belarus (including the abuse of authority), therefore the observance of safety requirements was assessed as poor.
- **O.** Meeting the regulation framework requirements depends on the general level of development and culture of a country. Thus, in the Scandinavian countries with highly developed culture safety requirements are more observed.
- P. In D group countries high level of corruption of supervising officers. In B group countries – strict observance of defined requirements. In A and C group countries the level of control is too low.
- **Q.** Meeting safety requirements depends on the activity of road safety services. Since the role of the SRTI has increased from 2005 to the end of 2010 (more strict control), the level of rule observance has increased. Scandinavian countries have always followed traffic safety requirements. According to the respondent, the least progress was achieved by the D group countries.

R. In B group countries situation was and still is very good; A and C group countries have tightened requirements (AETR), the check post was opened close to Klaipeda; training courses are organized for police officers.

Question B.3.4. Motivation and comments by experts.

- A. Transport cannot operate without relevant documentation; drivers cannot drive without driver's license or certificates; the use of alcohol/drugs and over speeding are also important problems. Cargo securing and documents are not so important. Peculiarities of transportation to different group countries are not specified; the assessment is the same for all country groups.
- B. Transportation boom was observed until 2007; the demand for drivers has increased, this resulted in higher number of noncompetent drivers (they were not good at dealing with certain technologies).
- C. Non-compliance with driving and rest time regime is one of the most important problems of carriers. Cargo securing and technical documentation should be subject to a more strict control.
- **D.** Carriers (drivers) follow the established requirements, therefore it is difficult to specify problem fields. Carriers of all countries have the same conditions (requirements); carriers arriving from foreign countries are not distinguished.
- E. There is no institution in Lithuania to check the overloads. Drivers still lack responsibility concerning the use of alcohol. No compliance with the AETR Convention – drivers are inventive and know how to forge the data in tachographs (by using magnets, various cards etc.). After installation of digital tachographs it will be difficult to do that. In the 2nd part of the question Poland could be distinguished with respect to noncompliance with the requirements. The Russians forge ADR documents and do not observe requirements concerning long stays in border-crossing areas.
- **F.** Focus in B block countries is given to cabotage transport. AETR requirements; State Road Transport Inspectorate pays more attention to this problem.
- **G.** In Lithuania it is a huge need to reorganize trade operations; this is often done by correcting cargo documentation. In Lithuania carriers of the EU Member States violate traffic rules and work

regulation procedure, since this sphere is yet under-regulated in Lithuania (minor penalties). Regarding RU carriers, the focus is given to formal requirements; they have "green light" for violations.

- **H.** Surplus checks with respect to foreigners. Lithuanians are checked properly.
- I. Regulation and control are strict; drivers try to observe the rules; yet, economic motives or illogical requirements cause violations.
- **J.** The most actual problem relevant both for drivers of Lithuania and other countries is over speeding. Foreign drivers ignore speed control devices, since their main goal is to cross the border and reach the destination as soon as possible.
- K. Vehicles of Russian and Belorussian carriers are often out of order, their technical condition is bad and they are frequently overloaded. Compliance with AETR requirements and technical state of vehicles (tires, breaks) are the best safety guarantees.
- L. The only reason of non-compliance with the requirements is corruption (being aware that in Lithuania they'll manage to "reach agreement", carriers and shippers violate the rules consciously).
- **M.** Usually the areas of control comprise the compliance of AETR rules, cargo documentation, cargo securing and total vehicle mass with freight (i.e. the areas which could be easily checked by the police and SRTI).
- N. Carriers from Scandinavian countries are least inclined to violate rules, whereas carriers from Poland violate nearly all the points. Practically there are no problems with documents; yet they are quite frequent with regard to cargo securing (the rules seem to be in place, but the action itself is not regulated). Carriers of all countries violate the AETR rules.

Question C.2.1. Motivation and comments by experts

- **A.** The highest culture and awareness level is in Scandinavia (more consciousness due to infrastructure. The level of awareness in RU and BY is very low.
- **B.** The level of culture of Lithuanian, Latvian and Polish drivers in the road is low (during all periods under analysis). The situation didn't change. No opinion concerning drivers from Russia and Belarus. Situation should be better in Scandinavian countries.
- C. Queues of vehicles because of people seeking to purchase cheaper fuel in Belarus. Safety culture has improved. The companies which didn't meet the requirements, have been eliminated from the market during the crisis, i.e. went bankrupt. Transport prices have dropped in 2009. Confusion and corruption in D group countries.
- **D.** Level of culture in Western European countries is higher. It has also been increasing in the Baltic States.
- E. Unqualified employees (especially in RU and BY). Since employees from the above countries often leave for work to foreign countries, safety culture in their companies is also not high. The internal policy of companies also determines safety culture: employees don't get remuneration and no attention is given to safety culture in the companies.
- F. Situation in B group countries: usually behaviour of drivers is indicated in the agreements and orders. In case if driver doesn't observe the rules, contacts are made with the head of company. Penalties are imposed for bad cargo securing (insufficient number of belts). In A group countries safety culture is not observed and there are no strict safety requirements in terminals. In D countries (as in Lithuania) not enough attention is given to safety in terminals.
- G. Condition of roads; infrastructure and mentality.
- H. C group countries should be separated; with respect to safety culture, situation is similar in Latvia, Estonia and Lithuania. Awareness of safety culture in Poland is lower. Scandinavians are traditionally responsible in this respect ("slow").

- Culture/absence of culture practically has no impact on operational results in RU and BY. No attention to this issue. Situation in Baltic States is improving (LT, LV, EE), yet they still lack behind the Scandinavian countries.
- J. In general the overall business culture is moving forward.
- **K.** Efforts are made not to lag behind neighbouring countries. Traffic statistics is improving (e.g. accident rate), although this was determined also by the reduced number of vehicles.
- L. Infrastructure improvements and focus on traffic safety brings good results.
- **M.** Emergence of new drivers' generation (higher qualification skills, more responsible, perceive situation differently than former generations).
- N. The level of safety culture could be assessed according to traffic safety situation in the roads. The highest level of culture is in the Scandinavian countries (Sweden, Norway, Denmark, Finland, and Germany). Russia and Belarus least comply with safety culture requirements.
- **O.** The level of culture in B group countries has always been high; quite a big input in Lithuania and in C group countries, carriers consider themselves as Europeans and are differently treated in Western countries.
- P. The awareness of the necessity to meet traffic safety requirements in B group countries has been developed for many years, therefore safety culture remained high in these countries. Despite that, B group countries didn't receive the highest assessment since level of safety culture is reduced by "new-comers" from other countries. In Lithuania, Latvia and Estonia the level of safety culture has currently increased compared to 2005-2006 but not as much as to get "good" assessment (many qualified drivers went to work abroad).
- **Q.** Safety culture is determined by: cultural aspect, level of corruption, overall (social) public awareness.
- **R.** Not many people understand the necessity to meet safety requirements and that safety culture should be high within the entire supply chain. This is due to inadequate education (awareness raising). In this respect the most progressive are Scandinavian countries and Germany; the lowest level of safety culture is in D group countries.
S. A, C and D group countries are not concerned about the drivers' safety, B group countries invest to drivers' safety (issue various leaflets, booklets and instructions in various languages).

Question C.3. Which developments and/or programmes have most improved HGV road safety in border-crossing traffic over the past 5 years? Experts' opinion (in random order).

In Lithuania	In the Baltic Sea Region
Situation deteriorated due to impunity and a possibility to get out of the situation. More strict rules should be introduced, e.g. drunk drivers should immediately lose the driver's licence (without any exemptions).	In Belarus situation has improved due to introduced scales in the border-crossing posts. Membership in the EU has major impact on BSR countries.
Membership in the EU, joining the Schengen Area and general rules of procedure improve the safety situation. The content in the conventions didn't change. Requirements for safety and ecological requirements are becoming more strict. Requirements in B group countries have always been high and stable.	It is difficult to identify specific factors since border-crossing procedures depend on the prevailing situation. E.g. transportation to Russia didn't change (no measures to improve travelling to this country).
Elimination of customs clearance procedures (when going to the EU).	After membership in the EU, situation remained stable.
After joining the EU the situation has become stable.	Situation in Scandinavia didn't change.
Schengen area has improved the situation. Modernisation of customs offices; restructuring and renewal of roads and other infrastructure.	Control in border-crossing posts increased and resulted in better security situation.
Control has significantly increased over 5 years.	Situation didn't change

EU support and improvement of	Development of roads, terminal
common EU projects for the	infrastructure and logistics
improvement of infrastructure	centres.
and processes.	
Improvement of access roads	Better condition of roads in
and passage conditions (road	Poland and Latvia. No major
widening) in border-crossing	changes in other countries.
posts.	
Border-crossing: international	_
transport in border crossing. The	
Ministry of Transport and	
Communications tries to improve	
the situation via social	
advertising, including more strict	
licence issuing. Another	
important change is introduction	
of e-tachograph.	
1) flows have decreased due to	1) flows have decreased due to
global recession; 2) traffic safety	global recession; 2) after
has improved after reducing	reducing flows and introducing
flows and introducing repressive	repressive and preventive
and preventive measures. Today	measures, traffic safety
border-crossing problems and	improved. Today border-crossing
problems related to long queues	problems and problems related to
are considered by the Directorate	long queues are considered by
of Border-Crossing Infrastructure.	the Directorate of Border-
	Crossing Infrastructure.
1) "VIA BALTICA" Project; 2)	 VIA BALTICA" Project;
implementation of innovations in	2) improvement of infrastructure;
motor vehicles (e.g. navigation	3) elimination of customs
devices, speed control devices,	clearance procedures ("open"
digital tachographs etc.).	border-crossing).
Border-free EU	Border-free EU
Less control posts (less traffic	Changes in road infrastructure
hindrances), changes in	
infrastructure.	
More efficient work of customs	More efficient work of customs
offices (and other supervising	offices (and other supervising
institutions): instead of physical	institutions): instead of physical
checks, the focus is given to	checks, the focus is given to
operative measures: people	operative measures: people

understand that Customs does	understand that Customs does
not hinder business	not hinder business development.
development.	
Membership in the EU.	No major changes.
Elimination of borders: sharing	
experience with Western Europe;	
higher level of culture; more	
responsibility-driven population.	
Amendments in the Road Traffic	Amendments in the Road Traffic
Regulations imposing more strict	Regulations imposing more strict
penalties, dissemination of	penalties, dissemination of
relevant information In 2006 a	relevant information. In 2006 a
publication was issued (from the	publication was issued (from the
EU funds) on traffic safety	EU funds) on traffic safety
improvement (common for	improvement (common for
Lithuania, Russia and Poland).	Lithuania, Russia and Poland).

Question C.4. Which factors, developments and/or programmes have most deteriorated HGV road safety in border-crossing traffic over the past five years. Experts' opinion (in random order).

In Lithuania	In the Baltic Sea Region
Assessment of the border with	-
Poland. No checks, less control	
in border-crossings	
Transnational conflicts	_
Transnational conflicts	Transnational conflicts (e.g.
	current disagreements between
	Poland and Russia)
-	Russians increased cargo
	control, including cargo weight;
	this determined queuing at
	borders (time loss)
Increasing number of vehicles;	Political situation between PL and
huge queues at the border with	RU concerning permits to enter
Russia	Russia
Transnational conflicts	Transnational conflicts (e.g.
	current disagreements between
	Poland and Russia). Different
	interpretation of laws in different
	countries.
Lack of consistency in replacing	Lack of consistency in replacing
the IT systems in border-crossing	the IT systems in border-crossing
posts; qualification of officers.	posts; qualification of officers.
More rapid increase of flows	More and strict requirements
compared to the increase in the	related to ecology and social
throughput capacity at borders;	issues.
introduction of new formal	
procedures after the Customs	
Union of RU, BY and Kazakhstan	
started the operations.	

	Lack of market capacities in the
	competition between carriers.
Transnational conflicts.	Transnational conflicts (e.g. official disagreements between Poland and Russia). Different interpretation of laws in different countries.
Insufficient throughput of border crossing posts results formation of queues. This in principle affects not only effective operations of companies but also the surrounding areas and life quality of people.	1) Insufficient throughput of border crossing posts result formation of queues. This in principle affects not only effective operations of companies but also the surrounding areas and life quality of people; 2) multiple and complicated border-crossing procedures in crossing the border of Russia.
Low-throughput border crossings in Russia and Belarus.	Queues in certain countries.
Increasing intensity of traffic flows, traffic jams.	Artificial queues at the Russian border (hindering operations of drivers from other countries).
Queues at the border determined by absence of relevant infrastructure (country was not prepared for such huge flows).	Queues at the border determined by absence of relevant infrastructure (country was not prepared for such huge flows).
Passport control for non-EU countries determined traffic jams, delays and higher risk.	
Drivers standing in the queues at border-crossing posts have no possibility to spend rest time in due manner. They get tired and start using alcohol.	Adequate rest time is not ensured for drivers (the use of alcohol).

Question B.1.1. Motivation and comments (e.g. regulations, conventions, directions from authorities) by experts.

- A. In 2010 security of trucks decreased, since companies couldn't provide enough funds for technical supervision of vehicles. The level of drivers' security has increased (the worst have been dismissed, the best stayed in the companies).
- **B.** Security agitation improved the situation.
- C. Security of drivers, trucks and cargo is increasing with years; in D group countries the level of security didn't change.
- **D.** The HGV security level is the same as the overall security level (no major differences); trucks and heavy vehicles run the same roads thus there are no major differences related to security situation.
- E. Well-developed infrastructure in B group countries (yet, not in all countries). Situation in PL is improving. No opinion concerning LV and EE. With respect to D group, situation is satisfactory until Moscow, but the risk in long cargo transportation distances increases. Another problem is racketeering (sometimes racketeers even put the sticker on a vehicle so as not to approach it for the second time).
- F. Security of drivers, trucks and cargo is increasing with years; in D group countries, especially in Russia it remains stable.
- **G.** In 2005–2006 bad traffic safety in Lithuania was determined by the age of the vehicle fleet. Currently it is being renewed.
- **H.** The overall level increased (both that of the transport fleet and of the measures allowing to track the place of stay of drivers and vehicles.
- I. The general security situation in Lithuania could be equalled with the B group countries. Situation has improved, but inconsiderably. The improvement was determined by the following factors: 1) less cargo thefts in Lithuania increased security of drivers; 2) recruitment of more competent drivers (the best go to work abroad) able to "feel" the situation and knowing how to behave under different circumstances.

- **J.** The situation depends on public authorities. Situation is worse in Poland (compared to Lithuania, Latvia or Estonia). It is not improving in Russia and Belarus (constant thefts). Carriers have instruction guidelines marking stopping spots.
- **K.** General security situation improved in all countries (less improved in Russia and Belarus). Improvement in Lithuania was determined by the increased control and the increase in the number of supervising persons.
- L. Very high level of security in Scandinavian countries (drivers obey driving rules and laws (e.g. if there is speed limit of 110 km/h, they never exceed it). Similar situation is in Estonia. Low traffic safety level in Lithuania is related to corruption (police operations). It was especially frequent earlier.
- **M.** Worse condition of infrastructure in Eastern countries affects security.
- N. The overall security situation improved due to the following factors: 1) increased role of supervising institutions; 2) better infrastructure; 3) awareness of the importance of adequate cargo securing; 4) introduced (and operating) technical solutions. Much better security situation is in Scandinavian countries and Germany; worse in Russia.
- **O.** In five years situation in RU and BY will improve.
- **P.** Only minimal professional drivers' training is pursued in Lithuania; improvement is related to the renewed fleet (new vehicles are more secure).

Question D.2. Which developments and/or programmes have most improved HGV-related security in border-crossing traffic over the past 5 years? Experts' opinions (in random order).

In Lithuania	in the Baltic Sea Region
More strict requirements (border	Training courses for drivers in
and ecological) provide for the	Latvia and Estonia (ongoing
assurance of high security level.	qualification upgrading).
Road upgrading, renewal of	Renewal of roads and vehicles in
vehicles, improvement of	Poland, including improvements
infrastructure.	of infrastructure.
New customs policy; more strict	TAPA, GPS and other IT,
requirements (border and	simplified customs procedures,
ecological) provide for the	development of relevant culture.
assurance of high security level.	
Movement of freight transport has	Supervising institutions.
become less complicated; less	
barriers in the Customs Union of	
RU, BY and Kazakhstan (no	
requirements for permits, only	
one declaration etc.).	
Reduced traffic volumes during	1) improved condition of road
the crisis period; implementation	infrastructure; 2) more control in
of TAPA standard.	the roads.
Supervising institutions.	Computerisation of customs
	procedures pursuant to the EU
	requirements; acceleration of
	operations of the entire system
	and declaration procedures etc.
More active operations of the	Better condition of roads.
police most of all contributed to	
the improvement of HGV-related	
security during the last 5 years;	
less organised criminal	
groupings.	

1) integration in the EU;	Supervising institutions – more
2) elimination of borders with	strict driving and rest regime
Poland (and other countries);	gave good results: the number of
3) improved condition of road	accidents reduced, ~90 percent
infrastructure (e.g. introduction of	of traffic participants observe
fixed speed cameras etc.);	traffic rules (there are no open
4) more control in the roads.	violations; few people violate
	rules secretly.
Customs computerisation	After introduction of more strict
according to the EU	requirements for vehicles, the
requirements; accelerated	countries renewed the vehicle
operations of the entire system	fleet (except B group countries
and declaration procedures.	where vehicles are new).
Better condition of roads.	
Renewal of the vehicle fleet.	

Question D.3. Which developments and/or programmes have most deteriorated HGV-related security in border-crossing traffic over the past 5 years. Experts' opinion (in random order).

In Lithuania	In the Baltic Sea Region
Economic and financial situation.	Traffic intensity increased.
Higher traffic intensity.	Different interpretation of laws in different countries.
Fall in qualification level of drivers.	Difficult to manage operations due to increased regulation.
Market pressure, price pressure, more thefts.	Denmark is the first by the number of thefts. Increasing volumes of smuggling and explosives.
Didn't deteriorate.	Didn't deteriorate.
Increasing smuggling volumes determined by free border throughput.	Increasing volumes of smuggling determined by free border throughput.
When Lithuania has become "external border" of the EU, control in border areas has increased. This resulted in long queues. Queues are also determined by the increased transit transport flows.	There are no major changes; too short a period for major changes. Russia remains to be an unpredictable country (customs officers work when they want to).
There are no major changes; too short a period for major changes. Queues at border-crossing posts.	Emergence of queues.
Non-compliance with AETR: savings during the crisis at the expense of drivers' rest time.	Non-compliance with AETR: savings during the crisis at the expense of drivers' rest time.

Question D.4.1. What are the most relevant security risks in the international road transport? Experts' opinions (in random order.):

	In Lithuania	In the Baltic Sea Region
a) People	A. Condition of roads and	A. Violations of rules,
(driver	vehicles, parking lots	accidents.
and	B. Violation of rules,	B. Bad cargo securing.
others)?	accidents.	C. Non-compliance with
	C. Irregular cargo.	work time
	D. Non-compliance with	requirements.
	work time requirements.	D. Traffic safety
	E. Traffic safety problems,	problems, accidents.
	accidents.	E. Accident rate
	F. Accident rate decreases,	decreases, yet it still
	yet it still remains high.	remains high.
	G. Irregular cargo.	F. Bad cargo securing.
	H. Working time,	G. Infrastructure.
	infrastructure.	H. Could be drugs.
	I. Accident risk (especially	I. Competence, pressure
	referring to pedestrians	of customers.
	during the dark time of	J. Human factor, road
	day): double risk for	infrastructure, non-
	driver and pedestrian.	compliance with traffic
	J. Competence, pressure of	regulations.
	customers.	K. Road quality problems
	K. Increasing transport flows	make driving more
	will result in the shortage	complicated. Criminal
	of drivers; less qualified	danger is higher in
	people will be employed;	Russia (to driver's life).
	the above will increase	L. Drivers lack
	overall security risk.	awareness on how to
	L. Level of criminality,	behave in case of
	corruption, smuggling.	accident or
	M. Human factor, road	unforeseen
	infrastructure, non-	circumstances (are

	compliance with traffic	pot oblo "to road"
	regulations.	tables and other
	N. Road quality problems	information).
	make driving more	M. Alcohol.
	complicated.	N. Experience,
	O. Non-compliance with	qualification.
	AETR requirements.	
	P. Drivers lack awareness	
	on how to behave in case	
	of accident unforeseen	
	circumstances (are not	
	able "to read" tables and	
	other information).	
	Q. Alcohol.	
	R. Experience, qualification.	
b) Cargo?	A. Road condition.	A. Violations of rules,
, .	B. Rule violations,	accidents.
	accidents.	B. Securing, unprotected
	C. Unfair drivers.	parking lots.
	Inadequate cargo	C. Thefts, improper
	securing and packing.	documentation. In
	Dangerous goods.	some countries
	D. Securing, unprotected	(Russia) thefts are
	parking lots	more common in
	F Thefts improperly filled	other (Scandinavian
	cargo documentation	and Western
	F In 2009–2010 many	countries) – less
	thieves swindlers	common
	fictitious companies (take	D Witnessed cargo theft
	cargo for transportation	in Poland
	and steal it)	F Loss of cargo after
	G Stolen cargoes because	theft because of small
	of shortage of protected	number of protected
	and well arranged	and well arranged
	and well-arranged	and well-arranged
	parking lots.	Parking lots.
	mode, cargo securing.	transportation mode.
	I. Small cargo loss risk; fuel	G. Cargo might become
		an object of criminal
	J. Thetts, pressure of	transaction (e.g.
	customers.	smuggling), although

 K. Level of crime, the carrier is not corruption, smuggling. L. CMR insurance, absence H. Thefts, pressure of 	
corruption, smuggling. aware of that. L. CMR insurance, absence H. Thefts, pressure of	
L. CMR insurance, absence H. Thefts, pressure of	
,,	
of infrastructure (e.g. lack customers.	
of parking lots). I. CMR insurance,	
M. Risk of thefts and absence of	
damage during handling. infrastructure (e.g.	
N. Bad cargo securing, lack of parking lots).	
frequent thefts. J. Bad cargo securing,	
O. Road condition, vehicle frequent thefts.	
body cleaning problems, K. Road condition,	
cargo securing. vehicle body cleanin	g
P. Worn out securing problems, cargo	-
devices (especially big securing.	
problem of Russian and	
Belorussian carriers).	
c) Vehicle. A. Violations of rules. A. Violation of rules.	
incl. accidents. accidents.	
trailer? B. Proper driving. B. Cargo securing.	
C. Cargo securing unprotected parking	
unprotected parking lots	
D ₂ Insufficient drivers' C ₂ Cargo securing	
qualification sometimes	
resulting in vehicle	
damage D . Less vehicle thefts	
F Less vehicle thefts due to due to insurance	
insurance F Technical condition	of
F Shorter operational time vehicle types and	01
of semi-trailers and trucks selection of transpor	t
due to irrational way of means	Ľ
driving	
G Technical condition of (with semi-trailer) e	a
vehicles in city certain objects	у. З
H Insecure parking could be hit etc	
L Pressure of customers G . Pressure of	
increasing value-to-	na
weight ratio	.9
J. evel of crime H. Condition of roads	-
corruption smugaling	
K . Condition of roads insurance impact of	
L. Thefts, accidents, weather conditions.	

	accident insurance,	J. Frequent tent
	impact or weather	damages.
	conditions.	K. Worn-out tires,
	M. Frequent tent damages.	overloads.
d) Cargo	A. Loss (damage) of	A. Loss (damage) of
docu-	documentation.	documentation.
ments?	B. Loss (damage of	B. Improperly completed
	documentation.	documents.
	C. Improperly completed	C. Improperly "written"
	documents.	documents.
	D. Improperly "written"	D. If something is wrong,
	documents.	in the supply chain
	E. Improperly filled	documents could be
	documentation by	corrected.
	shippers; this should be a	E. The risk to lose
	legal shipper's	documents.
	responsibility. Frequent	F. Non-compliance with
	overloads.	actual figures.
	F. Loss (damage) of	G. Loss, thefts, the risk
	documents.	of confusion,
	G. Huge risk that document	document completion
	could be fictitious.	mistakes, conscious
	H. Document forging	completion mistakes
	problem.	(counterfeiting or
	I. Non-compliance with	forging documents).
	actual figures.	H. Too many data to be
	J. Loss, thefts, the risk of	submitted (main
	confusion, document	problems occur when
	completion mistakes	delivering dangerous
	(counterfeiting or forging	goods).
	documents).	
	K. Improper registration of	
	documents.	
	L. A lot of data to be	
	submitted (main	
	problems occur when	
	delivering dangerous	
	goods).	

e) Other,	A. Financial and economic	١.	Financial and
what?	risk; not efficient		economic risk; not
	companies drag behind		efficient companies
	successful companies		drag behind
	and delay final		successful companies
	settlements.		and delay final
	B. Improper selection of		settlements.
	vehicle (not adjusted to	J.	Difficult driving
	the cargo type). High		conditions in North
	cargo damage risk (in		Scandinavia in winter
	case if cargo requiring		time (narrow roads).
	cooling facilities is		
	delivered by an ordinary		
	vehicle).		

Question D.5.Where do the security risks usually materialize? Experts' opinions (in random order):

a) geographically?

- A. In Russia
- **B.** This could be assessed by insurance contributions. Insurance contributions are lower in Lithuania; in Europe, and Scandinavian countries higher; in D group countries very high.
- C. Penalties are usually imposed in Scandinavian countries (due to strict regulations and supervision); more frequent checks. Security violations are frequent in Lithuania and Russia and Belarus because of the lack of control.
- **D.** Belarus.
- **E.** In reverse order: RU, BY, Poland, Lithuania, Germany and other Western and Scandinavian countries.
- **F.** RU, BY; the higher the risk the better remuneration.
- **G.** Cargoes are most often damaged in Lithuania, Poland and Russia. Penalties are usually imposed in Scandinavian countries and DE.
- H. In Russia and Belarus.
- I. LT, BY, RU, PL (not in urban areas).
- **J.** BY, RU, PL.
- **K.** In the East due to under-developed infrastructure and other regulations.
- L. Different risks in different regions.
- M. In CIS countries.
- **N.** In CIS and Asian countries.
- **O.** In BY (the state pursue cargo confiscation policy; certain part of cargo is confiscated).
- **P.** Especially in Eastern countries (BY, RU).
- Q. In Russia and Belarus.
- **R.** Generally in the roads.
- S. In the least controlled areas (where is low probability of control); in the areas with bad road condition (rough road surface. More security problems within the territory of the country, less at border-crossing posts.

b) along the supply chain?

- **A.** During handling: truck-warehouse-truck.
- **B.** In the road, i.e. during transportation (less during warehousing. During transfer/unloading of cargo.
- **C.** In the road, during transportation.
- **D.** During cargo reloading.
- E. Not defined: could materialise at both: at the shipper, carrier or receiver.
- **F.** When cargo is in the moving vehicle, especially in RU.
- **G.** In the road, i.e. during transportation (usually when cargo is transported from producer to wholesaler).
- H. When transporting cargo through certain territories.
- I. In warehouses, terminals.
- J. Rest areas: parkings, all intermodal links.
- K. During transportation.
- L. In terminals and where cargo is reloaded to another vehicle (change of transport mode).
- **M.** During transportation (when cargo is in the vehicle).
- **N.** During transportation, i.e. when cargo is with carrier.
- **O.** Insecure, inadequate package, securing (especially in case of multiple reloads); mistakes of employees responsible for handling/accounting.
- P. Due to delays and handling problems in all EU countries.
- **Q.** When cargo is moving: during loading/unloading.
- **R.** In logistics centres, terminals: during loading/unloading.

c) which actors are included?

- A. Every additional actor increases the risk.
- B. Carriers-forwarders. Warehouse staff.
- **C.** Shippers and carriers, since they are directly responsible for proper handling and transportation of cargo.
- **D.** Carriers (because of the incurred loss); receivers (don't receive goods).
- E. Customers (receivers): the risk of non-payment.
- F. Mostly the owner of cargo, and carrier.
- **G.** Shippers and carriers. They are directly related to the transported and packed cargo.
- H. Vehicles and their internal requirements.
- I. Dealers, offshore companies.
- J. All parties.
- **K.** Carriers and terminals, customs posts.
- L. Officers (the most unfair are in the East).

- M. Owner of cargo, carrier.
- **N.** Driving schools, SRTI (e.g. while getting prepared for and taking qualification exams).
- **O.** Carrier and personnel (drivers); in terminals: handling staff; third persons.
- P. Shippers, receivers, mediators.
- **Q.** Driving schools.
- **R.** All traffic participants.
- S. Carrier.

d) when (time, day of the week, month...)?

- A. In November-December, when flows are increasing.
- **B.** At night, in winter, during holidays or by the end of the year. Seasonality of cargo/goods; when traffic flows increase.
- C. At night, in winter, during holidays.
- D. At night, in winter.
- **E.** In winter: complicated traffic conditions (especially in the North (Scandinavia), problems with traffic safety and cargo security.
- **F.** On Fridays, when traffic is most intensive; during the dark part of the day, in winter, during holiday periods (drivers usually hurry).
- G. At night, during winter holidays.
- **H.** At night, in winter. Especially in spring in Russia and Belarus (axle loads are changed to 6 tonnes).
- I. During pre-holiday periods.
- **J.** At the beginning of winter, huge temperature differences; at night from Sunday to Monday. During the changing seasons of the year, e.g. security decreases while crossing several climate zones (from Finland to Poland).
- K. Beginning and end of week.
- L. During dark part of the day and during traffic jams.
- **M.** In winter, at night, during weekends and holidays (people are usually more relaxed).
- **N.** During weekends, in winter, during dark part of the day.
- O. During Christmas shopping (everybody hurries, many mistakes); when certain countries create artificial obstacles; on Monday and Friday (e.g. when it is necessary to collect several consignments of cargo: some of cargo is handled, the other part remains unloaded until weekend and stays until Monday; possible mistakes).
- **P.** During working days, especially during dark part of the day.

- **Q.** More risk in winter and during dark part of the day (plus bad meteorological conditions).
- **R.** At night, in winter (Due to ice, cold).
- **S.** Carriers try to work on weekends when there is less risk to get stuck in the control posts (less supervising officers). More accidents at night but less traffic.

This study is part of the C.A.S.H. project - Connecting Authorities for Safer Heavy Goods Traffic in the Baltic Sea Region - running from September 2009 to September 2012.

C.A.S.H. project aims to develop practical solutions to make international road freight transport safer, more predictable and affordable in the Baltic Sea region. The project intends to do this by:

- improving co-operation between authorities
- harmonising training of inspection officials
- testing safety equipment and IT systems to be used by relevant authorities

The project is part-financed by the European Union (European Regional Development Fund) through the Baltic Sea Region Programme 2007-2013.

Published by: C.A.S.H. Turku School of Economics, University of Turku FI-20014 University of Turku, FINLAND www.cash-project.eu