LogOnBaltic

EXPERT INTERVIEWS IN LITHUANIA -
Results and analysis of the intersectoral expert interviews in the field of logistics and ICT

Ramūnas Palšaitis and Darius Bazaras

EXPERT INTERVIEWS IN LITHUANIA

Results and analysis of the intersectoral expert interviews in the field of logistics and ICT

Ramūnas Palšaitis
and
Darius Bazaras

EXECUTIVE SUMMARY

This report summarizes the findings of interviews conducted with 11 experts representing manufacturing and retail industries, logistics consultants and services providers, research institutions, as well as local authorities and support initiatives in Lithuania. At the first stage interviews were performed with the 21 expert but 10 experts for different reasons were eliminated from the final generalization.

Expert interviews were conducted in the framework of the LogOn Baltic Project financed from the EU Interreg III B programme. Its aim is to present solutions to improve the interplay between logistics & ICT competence and spatial planning and strengthening the competitiveness of small and medium enterprises in the Baltic Sea Region (BSR). There are 10 regions and more than 30 partners involved in the project. Lithuania as a region is represented by Vilnius Gediminas Technical University

Interviews were based on a standardized questionnaire for all regions and covered five main topics: trends in relation to logistics and information and communication technologies, business connections in BSR, regional development, education and skills, and future outlook.

The results of the interviews indicate that the two key trends affecting the logistics sector are globalization processes and Lithuania's accession to the EU. Lithuania is well positioned to exploit its location for transit transport service development on the East – West and North – South axis; taking advantage of it is a matter of coordinated policy development and planning.

Key problem issues in Lithuania are the inadequate quality of separate transport infrastructure network chains and nodes, and the somewhat obsolete system of education in logistics and related disciplines.

Public and private sector players need to develop new forms and instruments for a mutually beneficial dialogue, as well as learning from experience of the "old" EU countries.

TYRIMO SANTRAUKA

Ataskaitoje apibendrinti 12 ekspertų apklausos rezultatai. Viso buvo apklaustas 21 ekspertas, atstovaujantis gamybines, prekybines, logistikos įmones, logistikos konsultacines įmones, mokslinius tyrimo institutus bei valstybines institucijas Lietuvoje.

9 ekspertų anketos buvo atmestos dėl atsakymų neapibrėžtumo, nepilno anketos užpildymo ar nepakankamos ekspertų kompetencijos kai kuriuose analizuojamose srityse.

Ekspertų apklausa buvo organizuota remiantis LogOnbaltic projekto planu finansuojamu iš ES Interreg III B programos lėšų. Projekto tikslas yra paruošti rekomendacijas susijusias su logistikos ir informacinių technologijų, bei erdvinio planavimo žinių panaudojimu didinant smulkių ir vidutinių įmonių konkurencingumą Baltijos jūros regione (BSC). Projektas apima 10 regionų ir jo vykdyme dalyvauja 30 partnerių. Lietuvą atstovauja Vilniaus Gedimino Technikos Universitetas.

Apklausa buvo organizuota panaudojant visiems regionams standartizuotą klausimyną. Klausimynas apėmė šias pagrindines temas: logistikos bei komunikacinių ir informacinių technologijų plėtros tendencijos, verslo ryšiai Baltijos jūros regione, regioninė plėtra, išsilavinimas ir įgūdžiai, ateities plėtros vizija.

Ekspertų apklausos rezultatai parodė, kad logistikos sektoriaus plėtrą labiausiai įtakoja globalizacijos procesai ir Lietuvos integracija į Europos Sąjungą. Lietuvos geopolitinė situacija yra labai palanki tranzitinio transporto plėtrai aptarnaujant Rytų – Vakarų bei Šiaurės – Pietų ašyse besiplėtojantį verslą. Siekiant efektyvios plėtros yra būtinas planavimo ir politikos transporto srityje koordinavimas bei su logistika susijusių studijų ir profesinio mokymo pastovus tobulinimas.

Tiek visuomeninio, tiek privataus verslo sektorių dalyviai (įmonės) privalo išplėtoti naujas, abipusiai naudingas, dialogų ir bendradarbiavimo formas bei metodus, tuo pat metu perimant senųjų Europos Sąjungos šalių pažangią patirtį.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

BSR	Baltic Sea Region
DEMIA	Development Measure Impact Analysis e.g. For example
ERDF	European Regional Development Fund
EU	European Union
GDP	Gross Domestic Product
GPS	Global positioning system
ICT	Information and Communication Technology
IS	Information system
IT	Information Technology
PPP	Public Private Partnership
SMEs	Small and Medium sized Enterprises
UK	United Kingdom
VAT	Value Added Tax

1 INTRODUCTION

1.1 Project introduction – LogOn Baltic

The LogOn Baltic project was approved within the Baltic Sea Region (BSR) INTERREG III B Neighbourhood Programme, which is sponsored by the European Regional Development Fund (ERDF), as part of the Structural Funds, and co-financed by national project partners.

The purpose of LogOn Baltic is to present solutions to improve the interplay between logistics and Information and Communication Technologies (ICT) competence and spatial planning and strengthening Small and Medium-sized Enterprises (SMEs) competitiveness in the BSR. This is primarily done by the production and dissemination of information for regional development agencies on how to support enterprises in the participating regions in the field of ICT and logistics, thus improving regional development.

The following regions are participating in the project:
- South-West Finland
- Östergötland (Sweden)
- Denmark
- Southern Metropolitan Region of Hamburg (Germany)
- West-Mecklenburg (Germany)
- North-East Poland
- Lithuania
- Latvia
- Estonia
- St. Petersburg (Russia)

LogOn Baltic provides an overview of logistics efficiency and logistics information systems and their exploitation, in order to improve the interaction between SMEs and other public/private actors.

On the one hand, the empirical activities of LogOn Baltic compare the existing logistics services and infrastructure with the logistics needs in the participating regions, making it possible to develop perspectives and action plans for strengthening the logistics competence in the

regions. On the other hand it describes the existing ICT infrastructure and services, revealing up to what extent they meet with the companies' needs for further development. In this way, LogOn Baltic focuses on:

    a.   identifying development agencies and evaluating their performance in each region

    b.   evaluating the level of logistics and ICT efficiency

    c.   suggesting concrete actions for regional and local public sector bodies

Data are gathered in each participating region using four tools, Development Measure Impact Analysis (DEMIA), Logistics survey, ICT survey and Expert Interviews; each of these is presented in a separate report. These results together with secondary data is presented in a regional report, that will describe the state of affairs in the region, with recommendations on what and how the region needs to develop. The regional reports are used as a basis for making an interregional comparison which is reported in an inter-regional report. All reports are available on the project homepage, www.logonbaltic.info.

1.2   Regional partner introduction

Vilnius Gediminas Technical University[1] provides higher technical education, prepares high skilled specialists, carries out fundamental and applied research, and prepares scientists. VGTU trains skilled specialists, carries out fundamental and applied research, educating the young generation of researchers.

13 800 students are studying at the University (40 % of women). The number of full-time and part-time students for BSc degree amounts to 10 950 and the total number of postgraduate students (MSc and Dip Engr) being 2600.

The main fields of VGTU research are engineering economics and management, intellectual resources, applied research and financing of the investigations are outlined in the strategy of VGTU research and development. The priorities stated embrace research orientation at the trends of European research, establishing research centres of high technologies and raising the level of investigation and development. The research carried out at VGTU is mainly oriented at the EU Framework programme for research and technological development,

---

[1] Description of the partner is based on the information from www.vgtu.lt.

dealing with sustainable development and global changes. The research performed at some VGTU departments and research centres is focused on different important items, following the priorities in European research and development.

VGTU transport management department has long experience in transport management and logistics teaching.

1.3   Expert interview introduction

Some of the main methodologies used within the LogOn Baltic project are expert interviews and empirical web-based surveys based on a large number of respondents. While the surveys mainly focus on the current status and needs of the logistics community and allow for a quantitative analysis, the expert interviews mainly follow a qualitative approach. The aim is to investigate regional strengths and weaknesses with respect to logistics and ICT. Nevertheless, expectations and future visions of different kinds of institutions and companies are to be determined as well.

The willingness to answer questions in a greater depth and in an open discussion can only be achieved by personal and individual conversations with selected interview partners. Furthermore, it is not only the aim to analyse the current situation but also the background and causes which lead to this situation as well as to give recommendations and to determine future trends of regional development. Thus, the complexity and multifariousness of the research questions require personal interviews and a qualitative approach. With ten to fifteen interviews it is possible to cover the major views on regional development regarding logistics and ICT.

The expert interviews will play an important role in the stage of the project when it comes to the development of a comparative report on the Baltic Sea Region (BSR). Since expert meetings will take place in all participating regions around the Baltic Sea, best practices and recommendations will be deduced for the regional decision makers.

2   INTERVIEW DESIGN

2.1   Target group and sample

The objective was to choose a heterogeneous target group, in order to guarantee for an analysis from as many perspectives as possible. In each region, ten to fifteen interview partners were selected, representing seven different institution or company groups. Another aspect in selecting the companies or institutions was the possibility to contact potential interview partners on a higher management level. Through this it could be assured that the interview partners had the willingness to answer the questions and had a good overview of the development of the industry in the region.

The private sector is represented by four different company groups: the manufacturing industry, the retail industry, logistics service providers and logistics consultants. The latter two were chosen because their employees normally have experience with a lot of different clients and/or projects.

The public sector is mainly represented by the local authorities who are responsible for regional development. Support initiatives may either belong to the private or the public sector or are public-private-partnership. Both institutional groups have experience in initiating, financing and executing regional development activities. Last, representatives from research institutions complete the target group by an independent and research-oriented perspective. Geographically, nearly all of the organizations interviewed are based in the City of Vilnius. This is explained by the disproportionate economic weight of the Lithuanian capital city, which represents some 50 % of GDP. Vilnius is one of the most important transport and logistics hubs in Lithuania (with Kaunas and Klaipėda). The following figure shows the target groups distinguished by the public and private sector.
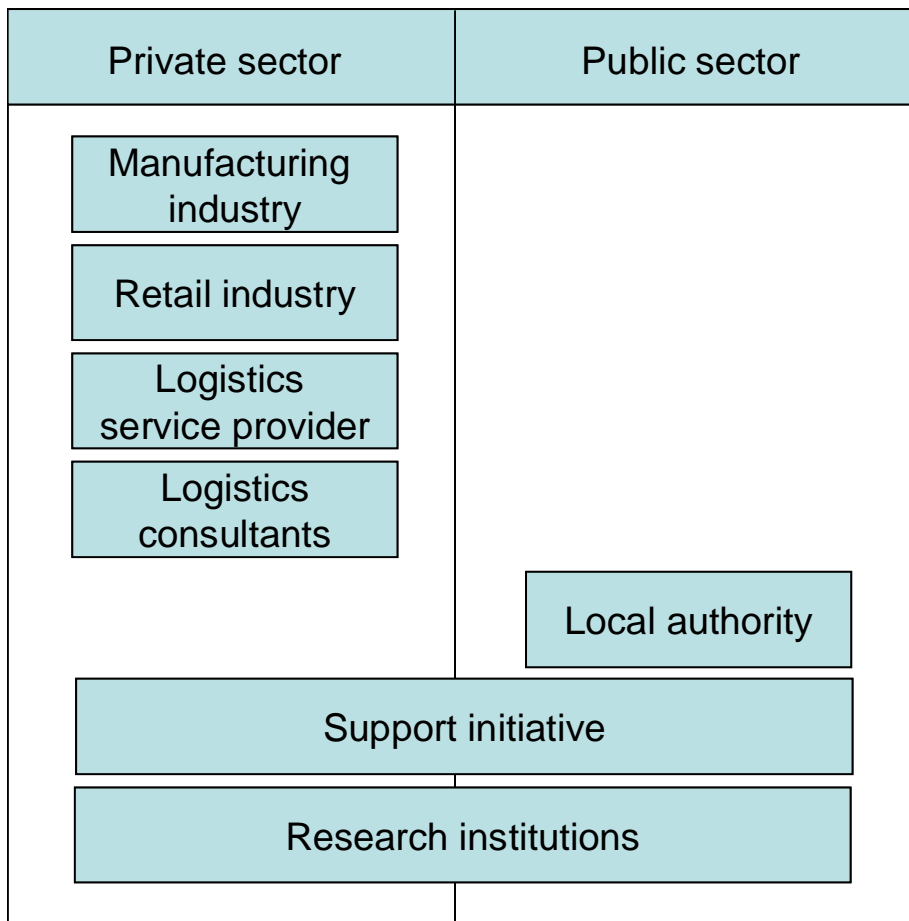
Figure 1   The target groups distinguished by public or private sector

For the Lithuania, the distribution of the interview partners can be withdrawn from the following table:

Table 1   Interview partners

Group	Name of company/ institution	Interview partner
Logistics Consultant	JSC Equinox Europe	Director
	VGTU Transport management department	Head of the department
Logistics Service Provider	JSC Transekspedicija	Production director
	Ad Rem Group	Logistics and transport centre
	JST Girteka	Director, Director for business development
Manufacturing industry	JSC Baltic Amadeus	Vice President for development
Research Institution	Transport research institute	Head of division
Retail Industry	Avon Cosmetics	Head of marketing division
	JSC Drogas	Head of marketing division
	JSC Kesko Agro Lietuva	Head of logistics division
	JST Teo Lt	Head of cluster development

2.2   Main topics covered in the interview

The interviews were conducted according to a half-standardized interview guideline. Most questions were open end questions. A quantitative scale was used in addition to qualitative answers, when it seemed useful for a later comparison of the interviews.

The interview guideline comprises five major parts. The first part covers general trends regarding logistics and ICT. The second part deals with current and planned business contacts in the BSR. Furthermore, barriers and problems of doing business in the BSR are discussed. Part three analyzes regional development measures. Starting from key issues and from the evaluation of regional development activities, the strengths and weaknesses of the region, the competence level with respect to logistics and ICT and proposals for improvements are examined. Part four addresses the qualification level in logistics and ICT as well as future needs for education. The guideline finishes with expectations, wishes and concrete recommendations of the interview partners.

3 FINDINGS FROM THE INTERVIEWS CONDUCTED

The structure of this chapter follows the structure of the interview guideline. Therefore, sections 4.1 to 4.5 refer to the five parts of the guideline. Section 4.6 summarizes and interprets the most important results.

3.1 Findings regarding trends in logistics and ICT

Most of the respondents indicated trends in relation to logistics, but few distinguished between trends affecting the region and the company considering that the same applies to both levels.

3.1.1 Trends in logistics

Globalization is among the most frequently noted trends that are likely to affect the region as well as the organizations interviewed. The supply chains have become longer, main trade links tracking through Lithuania are between old EU countries and Russia. Part of goods consumed in Europe and Lithuania (quite low quality) are increasingly produced in China, and product life cycles have become shorter. Quite big amount of goods produced in EU are transported in transit transport through Lithuania to Russia. Therefore the demand for logistics high quality services has increased. Considering Lithuania's geographical position, the economic growth of Russia is considered as an opportunity for strengthening the country's role as a gateway to/from Europe. Making the Lithuania into a Baltic centre for logistics, information technology and trade is one of the country development priorities. However, the geographical position per se may not bring the desired impact on the Lithuanian economy - cargo transit flows will move only in the case of the good service conditions and Lithuania need to create those conditions in cooperation with Latvia, Estonia, and Scandinavian countries. More then half million trucks in transit are crossing the Lithuania. Problems connected with the crossing Poland-

Lithuanian and Lithuanian – Latvian borders disappeared, but for international transit transport upraised Latvia – Russia border crossing problems, where near the border crossing points from time to time accumulate thousands trucks, which must wait in the truck lines for several days. This shows the poor transport infrastructure planning In Latvia.

Joining the European Union in May 2004 is another recent political event that the interview partners believe to have considerably affected the logistics issues. Certainly, the removal of internal borders has had a positive effect on the speed, precision and predictability of deliveries within the EU. While regarding countries outside the EU, an example of China, India, Japan was mentioned (Figure 2), the deliveries by rail have become more complex when Lithuania joined the EU. Increase in the range and offering local logistics services is also believed to be an effect of the EU membership.

Previously logistics companies have mainly provided services to serve the needs of exporters. According to some opinions, the logistics sector only started developing after Lithuania became an EU member state. Experts agree that companies are starting to increasingly use logistics services and require services with higher added value. This view of a service provider is also supported by the intention of a production company to outsource its logistics services. Further development of these services is believed to be one of the cornerstones of the overall economic development, especially for the city of Vilnius. One of the respondents considers it likely that strong local distributors will emerge to relieve smaller enterprises from organizing in-house logistics.

Some experts touched upon the issue of labour force. On the one hand, there is a trend of increased demand of logistics specialists, which signals that competences in this area are increasingly appreciated. On the other hand, there is a lack of labour force, which is a trend affecting companies and also one of the issues highlighted under the regional development issues.

Individual criticisms were levelled against the quality of the overall development planning, namely the lack of integrated and specific development plans and the shortage and competence of professional staff at the executive level.
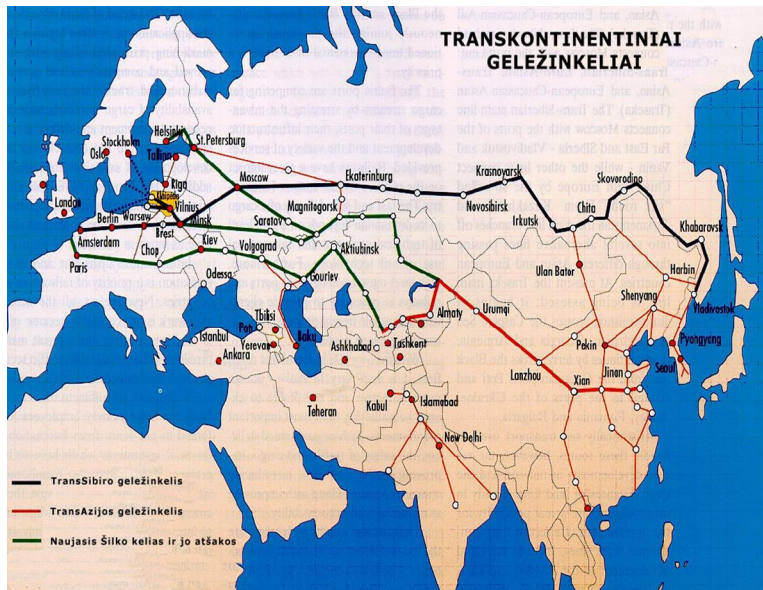
Figure 2   Transcontinental railway connections. Source: Ministry of
              Transport and Communications of the Republic of Lithuania

3.1.2 Trends in ICT

Among the trends related to information and communication
technologies is the high speed of information flow, which is faster than
the flow of goods themselves, and hence the emergence of BSR wide
information standards is likely. IT companies for logistics providers are
proposing (implementing) universal IT programs. Experts identified big
demand for personnel training in the IT sphere. Between strengths
experts highlighted opened to the innovations companies, qualified
personnel and positive governmental opinion. Pointing out weaknesses
in was identified quite slow modern IT technologies implementation for
financially motivation reasons.

One key development that is likely to have an impact on the logistics
sector is the introduction of electronic signature which got quite big
acceleration at the second part of 2007.

Biggest part of medium size companies are trying to use IT for the
optimization their business processes. Big trade companies (Senukai,
Maxima, and Rimi) involve EDI links with the biggest suppliers located
outside the Lithuania. There is certainly some movement towards

greater process automation, involving initiatives at a sector level to standardize and optimize the supply chain.

To the question "How satisfied are you with the local authorities' support and policy concerning ICT issues?" experts' estimations were distributed:

- very unsatisfied – 43 %
- rather unsatisfied – 43 %
- neither satisfied nor unsatisfied -14 %

In Lithuania is quite big room for ICT improvements:

- implementation of national IT infrastructure projects;
- improvement of supply and distribution channels with assistance of IT.

The experts suggested improving universities curricula in ICT education and to provide training to companies and demonstrate the advantages of modern IT solutions to industry.

3.2 Findings regarding business connections in the Baltic Sea Region

The nature of work of the organisations represented by the interviewed experts and the country itself is such that there need to be close ties with countries inside and outside the Baltic Sea Region.

3.2.1 Current business contacts and projects in the BSR

The table below summarises the distribution of responses about the number of business connections in the different countries of the Baltic Sea Region.

Table 2   Business contacts in BSR

Number of contact	0-5	6-15	16-25	>25
Federal Republic of Germany	4	1	1	2
Poland and Baltic States (Latvia, Estonia)	2	0	2	4
Russia	3	2	0	3
Scandinavia (Denmark, Sweden, Finland, Norway)	3	0	2	4

All respondents indicated the geographic spread of their partners. Overall, the interviewed experts found it somewhat difficult to estimate the exact number of business connections in the different countries.

Federal Republic of Germany: most responses lie within the range of "0-5" connections. In the case of two respondents (support initiative and local authority), the count is 0 because most of its contacts are with the Benelux countries and neighbours countries. Higher number of cooperation partners in Germany as well as other BSR regions was for logistics service providers and retail companies. This could be explained by the nature of their work, which was also one of the most common reasons to explain the number of cooperation partners in any given country.

Poland and Baltic States: 4 respondents have more than 25 partners. The higher number of partners in this area is most probably due to the geographic proximity of and hence closer economic ties with these countries. Primarily these are various suppliers and/or clients. In the case of one research institution, these are various development projects (such as, for example, Interreg II, Interreg III) implemented in partnership with organizations in the BSR.

Russia: The number of partners in Russia seems to be relatively small. 3 companies have more than 25 connections in Russia. Two of them are logistics service providers. Considering the trends explained in section 3.1 indicating the rise of Russia economy and supplier of row materials, its geographic location between Far Asia countries and Europe and the overall globalization of the supply chain this is a logical consequence. The experience accumulated in Lithuania in combination with other factors such as the knowledge of language and better understanding of the business context.

After experts interview it was identified, that logistics company's biggest problems have during the operations with Russia. Additionally survey of 8 logistics companies was performed. (**Autostarto grupė, OSP partneriai, Evekas, Eivora, Mitransa, Medisėja, Gepala, Dalios transportas**).

Survey questions are given in the table 3.

Table 3   Logistics companies' questionnaire and answers

	Answers [a) always ; b) often; c) rarely; d) never]
Do you face with corruption in Russia?	4-b; 3-c,
Do you face with transport overloading problems?	2-a; 4-b; 1-c
How often customs is is keeping service normative.	3-b; 4-c
If occur problems, do you solve them using legal methods?	1-a; 5-b; 1-c
If there keeping goods delivery terms?	6-b; 1-c
How often client is paying on time for transportation services?	6-a; 1-b
How often you face with problems on Russia border?	5-a; 2-b
Enumerate problems with which you face during goods transportation in Russia territory.	- Overloads; wrong packing, therefore vehicle is deformed and shapes measurements of the vehicle transporting undimensional goods (it is required to order permit for oversize goods transportation (it takes 15 days) or to pay for the officer graft ~ 50-100 USD) - Lack of proper permits - Lack of proper certificates - Lack of auxiliary equipment - Border officers require grafts for the quicker border crossing.

Problems troubling goods delivery to Russia:
- Customs procedures and its violation
- Transport queues on the border
- Contraband.
- Corruption.
- Lack of drivers.
- Lack of information and control in Russia.
- Goods transportation requirements violation and its solution ways.
- Governmental officers indulgences

Scandinavia: the number of partners is varied. 3 respondents have"0-5" connections," and 4 interviewees cooperate with more than 25 companies in this region. Biggest number partners in Scandinavian countries have the retail companies and logistics service providers.

3.2.2 Planned business contacts and projects in the BSR

Seven out of the 11 interviewed experts responded to this question, while five did not. The table below shows the distribution of responses of the industry and research organisations.

Table 4   Planned logistics projects

Number of contacts	0-5	6-15	16-25	>25
Number of logistics projects	1	3	1	2

Among the specific projects identified were:
- Ten-T network development
- Rail Baltica
- Road Via Baltica
- Creation regional public logistics centres
- Development of intermodal transport
- Academic contacts, research, implementation of research results

3.2.3 Constraints and problems of co-operations in the BSR

The challenges identified by the respondents in relation to business relations included the following:
- Big differences to business approach (viewpoint);
- Cultural and social differences;
- Skills of workforce.
- Quality of the sourced products, lack of unified services standards
- Language barriers in the digital world, lack of language knowledge;
- Confusion of Latvia with Lithuania for international transit transport services.

Excessive internal competition among the Baltic States when more could have been achieved through cooperation.

As regards institutional setup, few of the respondents mentioned the legal framework in Russia as an obstacle, namely the existence of many unwritten rules, lack of the knowledge of which could make doing business with Russian partners unnecessarily more complex.

Cooperating with partners (Mainly Russian) concerning institutional setup commonly occur problems connected with:

- Political problems;
- Border crossing and customs performance;
- Inflexibility and bureaucracy.

Generally, the respondents felt it was difficult to draw a line between an issue/problem and a normal business situation. Certainly, there are cultural differences among the different countries – both actual and imagined ones, but a business should be able to overcome these obstacles or leave the market.

3.3   Findings regarding regional developments

There was a lower rate of response to the questions on information and communication technologies, partly because the companies did not feel they were qualified to give expert opinion in this area and/or their activities had less to do with ICT and more with logistics.

3.3.1 Known regional development activities

Commonly answers about any regional development activities in the region:
- Lack of information;
- Projects financed from Cohesion fund;
- Information from the articles in the newspapers

Some of the organizations represented by the experts are themselves involved in one or more development initiatives; others mentioned the National Development Plan as the framework for regional development.

Among the specific projects named were: the infrastructure projects Via Baltica, Rail Baltica and the TENT programmes; Interreg projects and LogOn Baltic; investments in the development Lithuania transport infrastructure; establishment of public logistics centres.

3.3.2 Key regional development issues

The regional development issue mentioned most frequently was that of poor or insufficient infrastructure. Do not exist companies which could propose full intermodal transportation service. Logistics companies have difficulties with qualified personnel.

Do not exist real support of local authorities. Do not exist long term logistics development strategy.

It must be specifically pointed out traffic congestions and transport planning in the Vilnius.

Vilnius Gediminas Technical University Transport Management Department has a tradition of educating transport and logistics managers. Very important to mentioned that Department's students expect to graduate having acquired not only "soft" managerial skills, and "theoretical" knowledge of economics and business administration, but also the solid ground for the "real" profession in transport engineering.

Transport is a significant sector of the Lithuanian economy and its importance continues to grow with Lithuania becoming a "border" country of the EU. This is reflected also in national long-term strategic objectives of economic development. The increase in the number of transport companies and their capacity are creating favourable prospects for specialists, who are able to manage the resources in this field. Also, in the public sector, both at municipal and national level, there is a need for proper coordination, planning and control of transport-related services. The graduates of the programme have confirmed that they have not faced any difficulties in finding jobs upon their graduation. Also the employers expressed their satisfaction with the ability of the graduates to integrate quickly into the work environment.

As good example of non-profit training could be LINAVA Training centre which was established by the Lithuanian National Road Carriers Association (LINAVA) in 1997. The task of the Center is to provide high quality training and consulting services to the members of association – international freight transport companies and passenger operators. Along with the members, all other road transport companies both – international and domestic successfully use the services of the Center. The Center is involved in training and improvement of professional competence of all specialists employed in road transport enterprises. They are able to master their knowledge in road transport law, CPC for managers of freight and passenger companies, ADR, DGSA, TIR procedures, AETR, ATA, ATP, transportation of live-stock and a number of other subjects related to transportation by road.

The Center strives to take a leading position in road transport training and consulting market of Lithuania. It has well equipped modern facilities. Up to 2000 participants take part at training courses

annually. The Center is approved to provide training in ADR and DGSA.

It was noted the lack of coordination among the different stakeholders was mentioned as a regional development issue. The expectation would be that the state is able to perform a coordinating function or advise business on the support instruments available for the implementation of the particular initiative.

3.3.3 Successful regional development projects

Table 5   Successful regional development projects

Number of successful regional development projects	<25%	25-50%	51-75%	>75%
Number of contacts	1	1	0	1

Respondents named as success cases the technical development of Lithuanian roads in IXA and I (road of Via Baltica) transport corridors, Butinge oil terminal and Sothern Vilnius bypass. Experts named lack of strategic vision and framework, especially for smaller projects.

It was identified that regarding the development of network of the logistics centres

There were no discussions in the society or the government of its benefits. Between unsuccessful projects it must be mentioned projects in the field of waste utilization and cleaning of sewerage.

Bad assimilation EU Cohesion fund finances. Political problems connected with selection of the dumps location places. People living near potential dump locations always are against new dumps. In the Lithuania till this time is not working the law about land expropriation for the public usage.

3.3.4 Strengths and weaknesses of the Lithuania

One of the most frequently named strengths in the field of logistics is the convenient country location for transit transport, possibilities for intermodal transport development, quite cheap labour and land, good roads and qualified logistics personnel.

Between strengths in the area of ICT in Lithuania it was mentioned opened to the innovations companies, positive governmental opinion (position), qualified personnel.

The developing logistics sector was quoted as strength: potential for private investments in logistics infrastructure projects, and the emergence of cargo transport companies focusing on the international market.

Among the logistics weaknesses the most commonly mentioned was the lack of qualified personnel and lack of governmental support.

Experts highlighted public sector capacity and support as an issue: lack of state support for logistics projects; lack of intellectual resources in local government institutions to find the best solutions, suggesting that those could be increased by outsourcing professionals from the private sector; lack of support to introducing unified IS, which was attributed to a combination of a lack of systems and concepts and private vested interests.

The issue of a shortage of workforce, in particular low and medium skilled blue-collar workforce, was brought up, which was also echoed in responses to other questions.

In the field of ICT, the most frequently mentioned strength of the region was its workforce: qualified and competent and relatively cheaper than in Western Europe. There are in the Lithuania a number of good IT companies offering modern IT solutions, of the communication and internet services have helped to reduce costs and improve the range of services. The relatively high level of education in the field of IT and the political/public sector support and government's interest to develop electronic business and electronic services is one of the governmental priorities.

Between weaknesses in the area of ICT was identified quite slow IT implementation for financially motivation reasons. Experts expressed their dissatisfaction with the insufficient public support in the field of ICT. There should be more support from the state for the application of latest IT solutions.

3.3.5 The logistics competence level

Eight out of the 11 respondents answered this question. In one case the competence level of the company in comparison to leading companies in the branch 4 respondents evaluated as high, in case of the competence of the organization was assessed against the

competitors in the region 4 experts evaluated as acceptable and 3 as high.

Table 6   Logistics competence

	very low	questio nable	accept- able	high	very high
of your company/ institution in comparison to leading companies in your branch?	0	0	1	4	2
of your region in comparison to other regions in the Baltic Sea Region	0	0	4	3	1
of the local authorities in the region?	0	4	4	0	0
of the support agencies in the region?	0	7	1	0	0

The majority of responses indicated a company competence level at high (4). It seemed in the interviews that sometimes the experts were reluctant to assign the highest rating to their level of competence, noting that they still had a lot to learn. Overall competence in the region of was estimated to be acceptable, with 3 of the 8 interviewed experts marking "high".

The estimation of logistics competence was identified quite low. The most frequent response was "questionable" (4), "acceptable" (4). There is a difference among the municipalities, with the level of logistics competence in the larger municipalities of Vilnius, Kaunas, and Klaipeda being much higher than that in smaller municipalities.

As regards support agencies, of the 8 respondents that assessed this group of organisations, 7 experts assessed it as questionable.

3.3.6 Participation of the interviewed companies in logistics support agencies, networks or initiatives

Only 2 out of 11 respondents answered positively to this question. One of the experts highlighted that for their organization (research

institution) participate in the logistics support agencies if it is connected with international projects.

Biggest part of respondents do not participate in the performance of logistics support agencies because in Lithuania do not exist active logistics support agencies.

Of the active companies, majority are involved in Lithuanian road carriers association or industry networks in connection to their core business.

3.3.7 Assessment of local authorities´ support and policy concerning logistics and ICT issues

There were altogether 6 responses about the satisfaction with the local support in the field of logistics and 9 responses relating to support for ICT, the rest are in the category "not specified".

Experts' answers to the question "How satisfied are you with the local authorities' support and policy concerning logistics and ICT issues?" distributed following:

Logistics:

very unsatisfied	rather unsatisfied	neither unsatisfied nor satisfied	satisfied	fully satisfied
15 %	85 %	-	-	-

ICT:

very unsatisfied	rather unsatisfied	neither unsatisfied nor satisfied	satisfied	fully satisfied
43 %	43 %	14 %	-	-

The majority respondents for logistics and for ICT support – seem to have no strong opinion about such support, choosing either "very unsatisfied or rather unsatisfied". Among the most common justifications was the response "no such support exists". These answers indicate that respondents do not expect support from local authorities rather than that there is no such support.

Experts stressed that it is important to involve businesses representatives in making decisions that affected business, and to

motivate businesses to cooperate with public authorities by offering incentives and demonstrating benefits to the private sector.

3.3.8 Proposals for improvement

The logistical and ICT improvements that respondents indicated as pending for their own organizations are summarized in Table 8.

Table 7   Logistics and ICT related improvements in the organization

Company – Logistics improvements	Company – ICT improvements
- Simplification of administrative and public purchasing rules; - Simplification of land acquisition procedures; - Quicker tenders evaluation;: - Raise the level of competence in the organization through education and training of staff; - Involve logistics service provider in the education process.	- Implementation of national IT infrastructure projects; - Improvement of supply and distribution channels with assistance of IT; - Introduce modern technologies to support process automation; - Continue development of the existing IS, integrate existing IT systems; - Outsource IT infrastructure; - Purchase new IT software.

The improvements which can be really realized, however, are up to the company's top management that may or may not be willing to make the necessary investments.

Table 9 presents the list of proposed improvements for local authorities, while Table 10 does the same for support agencies. It needs to be noted that the respondents were reluctant to express their opinion regarding these two groups as they either have little contact or little if any opinion about the capacity of these organizations.

It is worth noting that across the respondents there were no suggestions for ICT improvements at local authorities. The lack of suggestions probably is based in insufficient knowledge of local governments' ICT solutions on the part of most respondents.

Table 8   Logistics related improvements in local authorities

Local authorities – Logistics improvements	Local authorities – ICT improvements
- Afford more information about new logistics projects: - Incorporate companies into logistics projects development; - Logistics training and international experience succession; - PPP principles implementation and governmental support; - Closer collaboration between private companies and governmental institutions; - Government must safeguard development of transport and logistics infrastructure.	- Implementation of national IT infrastructure projects

Table 9   Logistics related improvements in support agencies

Support agencies – Logistics improvements	Support agencies – ICT improvements
- Simplification of administrative and public purchasing rules; - better manning with qualified managers; - Purposive prepared information about possible support versions; - More quick tender evaluation; - Better experience succession from analogical international agencies.	- Better experience succession from analogical international agencies; - Implementation of targeted IT training programmes

3.3.9 Roles and responsibilities in regional development

The typical response to the question about the division of responsibility for regional development was that initiative should come from both the public and private sectors.

It was suggested that the public sector – state and governmental ageneses – should coordinate their efforts to promote the business development of the territory and create the necessary conditions. Bigger investments in the transport infrastructure, public logistics

centres. PPP principles implementation in to the transport and logistics sector and governmental support.

Close collaboration between private companies and governmental institutions.

Government must safeguard development of transport and logistics infrastructure.

3.4 Findings regarding education and skills in the regions

Vilnius Gediminas Technical University Transport Management Department is providing university studies for bachelors and masters degree in transport management and logistics.

Advantages of the Department's programme:

- the programme provides highly skilled bachelors for the transport and logistics sector providing them with sufficient knowledge in the areas of business administration and economics combined with the technological specificities of the transport areas;
- the programme satisfies the requirements of the overall regulations and requirements;
- the programme has a sufficient number of professionally well-trained academic staff;
- a significant part of the faculty is engaged in applied research.

All experts emphasized high quality of specialists' preparation and it takes quite short time to integrate in to professional practice.

3.4.1 Qualification of employees in logistics

The distribution of responses about the logistics competence by employee groups in the company and region is summarized in table below.

Table 10   Logistics competence by employee groups

In the company:

Qualification level in logistics					
	very low	rather low	acceptable	high	very high
blue-collar worker	0	0	3	1	2
white-collar worker	0	1	2	2	1
management	0	0	2	4	1

In the region:

Qualification level in logistics					
	very low	rather low	acceptable	high	very high
blue-collar worker	1	2	3	1	0
white-collar worker	1	4	1	0	0
management	0	0	2	4	1

Across all employee groups both in the companies and in the region, the typical assessment of logistics competence was "acceptable". Yet a substantial number of responses give a favourable competence rating ("high" and "very high") –for management in the company. According experts logistics competence in the region is lower then in the company

3.4.2   Qualification of employees in ICT

ICT competences were rated by 8 out of 112 respondents. For blue-collar workers the most common ICT competence level was "acceptable or high" (6 on company level and 5 ratings on the regional). Company white collars received 4 ratings of "acceptable"; at the regional level the average ICT competence of white-collar 3.

Management ICT competence on both levels was rated as "acceptable". Unlike logistics competence, ratings "high" and "very high" were used much less frequently evaluating ICT competence of the employees.

Table 11   ICT competence by employee groups

Qualification level in ICT in the company				
	very low	rather low	acceptable	high	very high
blue-collar worker	0	0	3	3	1
white-collar worker	0	3	4	1	0
management	0	0	3	1	0
Qualification level in ICT in the region				
	very low	rather low	acceptable	high	very high
blue-collar worker	1	2	3	2	0
white-collar worker	2	2	3	1	0
management	0	2	4	2	0

ICT competence assessment comes out about 1 point lower than the average logistics skills, both on a company and regional level. This can be explained by the fact that more of the respondents were involved in the business of logistics than ICT, and therefore felt less confident of their and others' ICT skills.

The respondents to this question reemphasized that most employees learn on the job because their qualifications at the time of joining the company usually are below the company's requirements.

3.4.3 Expectations for future educational training in logistics and ICT

The views expressed regarding the potential educational training needs for the future were very varied. Experts highlighted that more training is required in information and communication technologies. The educational training should be better linked with the needs of the private sector by involving companies in the design of education curricula, and by providing company facilities as training platform for students. Most typical experts' answers were following:

- It is prepared application to the EC funds for the financing of managers training;
- Logistic employees constantly are scented to the actual seminars and conferences;
- Young and qualified personnel;
- Training courses permanently are organized last 5 years;
- 60% of managers have ICT masters degree;

- All personnel has university education;
- Parts of the researchers have scientific degrees (research institution).

3.5   Findings regarding company expectations

Direct government support for companies which want to implement special decisions requiring systems. Some believe that the state involvement is not always satisfactory; however, the problems are more at the executive and not the policy level.

The governmental institutions must create easier public procurement requirements (especially for land procurement). Governmental institutions involvement is not always satisfactory; however, the problems are more at the executive and not the policy level. State should create support instruments in the area of logistics, including logistics training.

Governmental institutions must consider business requirements, companies must seek not only own interests but and society. The state must support companies' investments in to modern ICT technologies reducing taxes. Should be a better availability of IT solutions on the market and they should be more affordable to smaller companies.

3.6   Interpretation of results and conclusion

This part briefly highlights the key conclusions in each of the interview guideline fields.

3.6.1 Trends

Globalization and Lithuania's joining the European Union have been identified by the experts as two most significant factors that have and will continue to make the highest impact on both their company and the region. Aiming to ensure designated customer service level, to introduce technical planning requirements for the establishment of intermodal transport terminals.

In the longer term, a procurement of new container flat cars will be necessary to prevent an overage of the rolling stock and to react to the increase of the customer demand.

To ensure financial support for construction and reconstruction of intermodal transport infrastructure facilities (to promote financing from structural and cohesion funds, to promote PPP).

The contemporary ICT in transport and logistics sector will be very important for the optimum control of traffic and cargo flows. Therefore it is necessary to implement following systems and sub systems:

- emergency call-direct connection with the operator of local road basis
- weather system - for the road maintenance
- traffic counting and classification
- video survey - where traffic jams occur and combined with electronic signboards
- velocity inspection - with digital cameras
- automatic toll collection
- collective roadside information for drivers

The main aim is to set the transport information and statistics system that could enable to provide all transport service suppliers and customers with operative information in the most convenient and precise way but respective services to gather and process statistical information., that could enable all transport related institutions and organizations to utilize the data in analyzing, forecasting and passing decisions with regard to transport operations.

3.6.2 Business connections

The results show that Lithuanian business companies have quite wide connections with the other countries in the Baltic Sea Region. Average umber of business contacts to the Baltic Sea region:

- Federal Republic of Germany – 6-15
- Poland and Baltic States - 16-25
- Russia - 6-15
- Scandinavia – 16-25

Lithuania geographic position gives it an advantage to develop logistics services between old EU countries and Russia.

3.6.3 Regional development

In accordance with the „Lithuania Transport and Transit Development Strategy" the Lithuanian Government will give priority to the

development of international transport corridors, multimodal cargo transportation and high quality logistics services.

In order to promote Lithuania's position as a key player in east-west and south-west cargo transportation the establishment of the regional logistic centres in the biggest towns is envisaged. They must be located near the international transport corridors and will promote intermodal cargo transportation and will benefit country from the large amount of traffic currently transiting Lithuania, by offering (value added) services to transport operators and cargo owners.

Figure 3   Public logistics centres in Lithuania. Source: Bazaras, D.; Palšaitis, R. Analysis of the Prospectives of Intermodal Transport and logistics centres in Lithuania "Transport" Journal of Vilnius Gediminas Technical University and Lithuanian Academy of Science Vol. XIX, No.3 2004, 119-123 p.

It is identified that the creation regional logistics centres in Lithuania is one of the main measures of improvement for transport-related infrastructure in the country.

Regional logistics centres will be the first public Logistics Centers in Lithuania established under the contemporary requirements and will provide the needed co-operation with big trading companies and other logistics centres in and outside Europe.

Transport Corridors No. I and No. IX must be very important for a Logistics Centers in Lithuania will have significant impact on the business linked as to the separate regions and to the whole country.

The benefits deriving from an increase of international multimodal transit traffic will be also related to the complementary and boosting activities of logistic services associated with the development of logistics centres network in Lithuania.

The Logistic Centers in Vilnius, Kaunas and Klaipeda must be created and run in coherence with the most logistically, commercially and environmentally efficient logistics centres in Europe and for such reasons it must comply with European standards and quality performance to provide the framework for commercial and sustainable transport solutions.

3.6.4 Education and skills

Companies are trying to score an advantage against their competitors. Companies' managers chunk their time thinking about the directions in which their company must develop. They try identifying the tasks which must be realized. Without good coordinated teem work it can't be realized. Managers must think about how personnel must to change its work and how employees must interact in relationships. More and more companies' owners or leaders understand that manpower may be important, and that it may be sensible to begin to consider how they can assist to the personnel to perform to the peak of their potential. Accepting that personnel are important means that big attention must be given to the learning and training.

Since the first years of Lithuania's independence, the image of the country is being established as a transit and logistic service country, which by international transport corridors connects Western and Eastern, as well as Southern and Northern European countries. This was predetermined by the importance of possible logistics services which can be proposed for the local and foreign companies. Incomes for logistics services create major part of the country GDP and establish thousands of working places.

Very important point is catchall view of personnel management organization for achieve situation when it is possible combined adult education and training at the work places in the companies. In the logistics and "near–logistics" firms should be provide training and information methods which can be use for effectively join in the implementation of logistics training. It is very important points because adult's education has additional impact – social development of person.

The combined industrial engineering and management type study programmes have certain disadvantages at undergraduate level, and also, there are not fully compatible with the principles of the Bologna declaration either. For example, their narrow focus on industrial specificities limits the scope of both the job opportunities and the further study possibilities for he graduates. It makes it also difficult to supplement and deepen the knowledge of their graduates in similar industrial management programmes organized at Master's level.

In the logistics training process we face with psychological influence and life experience, person relation with other persons, commercialization of the training activity and motivation problems relation together. In many case, commercialization of the training activity connected with desire of commercial firms avoid conflicts with commercial training course participations. For this reason firms are trying use more non-formal education methods for formal education methods which are more difficult and not attractive. From this reason quality of training process and knowledge become worse.

For achieving quality of training process are necessary to understood role of transformation from information to knowledge. It is very important to show real benefits of knowledge using at the person's business and/or personal life. It is help to create more deep motivation for participants and teachers (trainers).

3.6.5 Outlook

The interviewed experts had two key expectations – improved infrastructure and modernization of the education system. It is needful to optimize projects management, public procurement rules. Modernization of transport and logistics infrastructure. Prepare more qualified logistics specialists. Renew study programmes in the universities. Governmental institutions must not obstruct private companies' incentives.

4 SUMMARY AND OUTLOOK

This report presented the findings of interviews conducted with 11 expert representing the manufacturing and retail industries, logistics consultants and services providers, research institutions, as well as local authorities and support initiatives in Lithuania. Interviews were based on a standardized questionnaire for all regions involved in the LogOn Baltic Project and covered five main topics: trends in relation to logistics and information and communication technologies, business connections in BSR, regional development, education and skills, and future outlook.

The key trend emphasized by the experts is the globalization process, which causes the supply chains to become increasingly longer. Favourable opportunities emerge for Lithuania to utilize its geographic position on the Eastern borders of the EU. Another key event was Lithuania becoming an EU member state in 2004, which has made goods transportation within the EU easier, more predictable and precise, although somewhat complicating the connections with countries outside the EU. Among the negative trends noted by several experts is the shortage of drivers in Lithuania. In the middle of 2007 in Lithuanian transport companies were working 3000 drivers from Ukraine, Byelorussia, and Moldova.

The results show that Lithuanian business companies have quite wide connections with the other countries in the Baltic Sea Region. Cooperating with partners (Mainly Russian) concerning the business relations commonly occur problems connected with big differences to business approach (viewpoint), cultural and social differences, skills of workforce.

Key regional development issues identified by the experts are insufficient transport and logistics infrastructure and the need for coordination among the different stakeholders to the regional development process. In accordance with the „ Lithuania Transport and Transit Development Strategy "the Lithuanian Government will give priority to the development of international transport corridors, multimodal cargo transportation and high quality logistics services.

In order to promote Lithuania's position as a key player in east-west and south-west cargo transportation the establishment of the regional

logistic centres in the biggest towns are envisaged. They must be located near the international transport corridors and will promote intermodal cargo transportation and will benefit country from the large amount of traffic currently transiting Lithuania, by offering (value added) services to transport operators and cargo owners.

Information and communication technologies in the transport and logistics sector are not enough developed and exist quite big retardation from old EU countries. In Lithuania is implemented the automatic traffic data collection system on motorways, which provides information about driving conditions on roads drivers can get from TV text page and very soon the Road Transport Directorate is planning to have page about traffic jams, roads surfaces and driving conditions on the Internet.

The state should also continue to promote the application of information technology in the society and business. Experts noted the need for new forms and instruments for a dialogue between the private and the public sectors. It was suggested that innovative solutions could be learned from the experience of 'old' EU countries.

APPENDIX

Appendix 1 Interview guideline

Structure

Introduction:

Introduction of the interviewer
Short presentation of the LogOn Baltic project and its objectives

Question clusters:

I: Trends (1 question)	*∑min 5 min*
II: Business Connections (3 questions)	*∑min 12 min*
III: Regional Development (9 questions)	*∑min 30 min*
IV: Education/Skills (2 questions)	*∑min 5 min*
V: Outlook (2 questions)	*∑min 8 min*

Interview – Basic information

Interviewer

Name:
Institution:

Interviewee

Name:
Function:
Name of institution:
Type of institution:

☐ Manufacturing industry   ☐ Local authority
☐ Retail industry   ☐ Support initiative
☐ Logistics service provider   ☐ Research institution
☐ Logistics consultant

Date, duration and location of interview
Date: Duration: Location:

Interview – Questions

I: Trends

I.1.) What do you think are currently the most important trends relevant for logistics and ICT that will influence:

    a) your company / institution / organisation?

    Logistics:

    ICT:

    b) your region?

    Logistics:

    ICT:

II: Business Connections

II.1.) Do you have any business contacts to the Baltic Sea Region? If so, please differentiate among:

Number of contact	0-5	6-15	16-25	>25
Federal Republic of Germany	❏	❏	❏	❏
Poland and Baltic States (Lithuania, Latvia, Estonia)	❏	❏	❏	❏
Russia	❏	❏	❏	❏
Scandinavia (Denmark, Sweden, Finland, Norway)	❏	❏	❏	❏

Why do you have so many / no contacts?

II.2.) Are there any logistic projects planned with new suppliers / customers in the BSR in the next year(s)? *[for industry and research]*

Number of logistics projects	0-2	3-5	6-10	>10
	❏	❏	❏	❏

What kind of projects?

II.2.) Are there any (state-run) cross-national projects planned with local authorities / institutions / companies in the BSR in the next year(s)? *[for local authorities and support agencies]*

Number of cross-national projects	0-2	3-5	6-10	>10
	❏	❏	❏	❏

What kind of projects?

II.3.) When cooperating with partners from Eastern Europe, new EU member countries, Russia, Scandinavia[1] respectively what kind of challenges did emerge?

Please describe inhibitors or possible constraints when dealing with these foreign business partners:

a) concerning the business relations (e.g. intercultural differences, business performance factors, skills of workforce, management skills)
b) concerning institutional setup (e.g. transport and ICT infrastructure, general political conditions, …)

III: Regional Development

III.1.) Do you know of any regional development activities in your region?

III.2.) What are the key regional development issues (e.g. concerning infrastructure, location, training, local support …) for:

a) logistics in your region?
b) ICT in your region?

III.3.) What kind of former regional development projects in your region have been successful?

Number of successful regional development projects	<25%	25-50%	51-75%	>75%
	❏	❏	❏	❏

How did you come to this judgement?

III.4.) In your opinion, what are the strengths and weaknesses in the area of logistics and ICT in your region? What determined your decision to

---

[1] Eastern European countries, Russia, Scandinavia will add Federal Republic of Germany respectively and cancel their home country.

locate in this region (please refer to special regional logistics competences, locational factors, infrastructural conditions, support programs, skilled workforce …)?

	of Logistics	of ICT
Strengths		
Weaknesses		

III.5.) How do you think is the logistics competence level…

	very low	question-able	accept-able	high	very high
of your company/institution in comparison to leading companies in your branch?	❑	❑	❑	❑	❑
of your region in comparison to other regions in the Baltic Sea Region	❑	❑	❑	❑	❑
of the local authorities in the region?	❑	❑	❑	❑	❑
of the support agencies in the region?	❑	❑	❑	❑	❑

Please comment.

III.6.) Is your company participating in logistics support agencies, networks or initiatives (e.g. for Hamburg Region: Logistics Initiative Hamburg, Süderelbe etc.[2])? Why?

III.7.) How satisfied are you with the local authorities´ support and policy (e.g. for Hamburg[3]: Wirtschaftsbehörde) concerning logistics and ICT issues?

Logistics:

very unsatisfied	rather unsatisfied	neither unsatisfied nor satisfied	satisfied	fully satisfied
❑	❑	❑	❑	❑

Please comment.

---

[2] please add locally the most important local agencies
[3] please adapt locally

ICT:

very unsatisfied	rather unsatisfied	neither unsatisfied nor satisfied	satisfied	fully satisfied
❏	❏	❏	❏	❏

Please comment.

III.8.) Where do you see room for logistical and ICT improvements?

Improvement	of Logistics	of ICT
a) in your company / organisation		
b) in local authorities		
c) in support agencies		

III.9.) How do you see the different roles and responsibilities for regional development (e.g. who should start development activities: state, pubic-private-partnerships, companies by themselves, associations, etc.)?

IV: Education/Skills

IV.1.) How would you value the employees´ qualification level in logistics / ICT

a) in your company?

Qualification level in logistics					
	very low	rather low	acceptable	high	very high
blue-collar worker	❏	❏	❏	❏	❏
white-collar worker	❏	❏	❏	❏	❏
management	❏	❏	❏	❏	❏
Qualification level in ICT					
	very low	rather low	acceptable	high	very high
blue-collar worker	❏	❏	❏	❏	❏
white-collar worker	❏	❏	❏	❏	❏
management	❏	❏	❏	❏	❏

b) in the region?

Qualification level in logistics					
	very low	rather low	acceptable	high	very high
blue-collar worker	❏	❏	❏	❏	❏
white-collar worker	❏	❏	❏	❏	❏
management	❏	❏	❏	❏	❏
Qualification level in ICT					
	very low	rather low	acceptable	high	very high
blue-collar worker	❏	❏	❏	❏	❏
white-collar worker	❏	❏	❏	❏	❏
management	❏	❏	❏	❏	❏

Please provide some background information on the professional qualification of your employees.

IV.2.) What educational training do you expect to be relevant in the future and how do you support further education and training in the area of logistics and ICT?

V: Outlook

V.1.) What are your expectations and wishes for further logistics and ICT development (from local authorities, support agencies...)?

V.2.) Do you have any concrete policy recommendations in the area of logistics / ICT?

LogOn Baltic Publications (as of 25.1.2008)

LogOn Baltic Master reports

1:2007   Developing Regions through Spatial Planning and Logistics & ICT competence -Final report
Wolfgang Kersten, Mareike Böger, Meike Schröder and Carolin Singer

2:2007   Analytical framework for the LogOn Baltic Project
Eric Kron, Gunnar Prause and Anatoli Beifert

3:2007   STATE OF LOGISTICS IN THE BALTIC SEA REGION – Survey results from eight countries
Lauri Ojala, Tomi Solakivi, Hanne-Mari Hälinen Harri Lorentz and Torsten Hoffmann

4:2007   Aggregated ICT survey report
Eric Kron and Gunnar Prause

5:2007   EXPERT INTERVIEWS CONSOLIDATED REPORT - Summary of LogOn Baltic expert
interviews conducted in seven regions of the Baltic Sea Region
Matti Takalokastari

LogOn Baltic Regional reports

Development Measure Impact Analysis (DEMIA)

10:2007   REGIONAL DEVELOPMENT IN THE SOUTHERN METROPOLITAN REGION OF
HAMBURG, GERMANY - Development Measure Impact Analysis (DEMIA) on regional
development related to logistics and ICT
Janina Benecke, Jürgen Glaser and Rupert Seuthe

11:2007   REGIONAL DEVELOPMENT IN MECKLENBURG-VORPOMMERN, GERMANY -
Development Measure Impact Analysis (DEMIA) on regional development related to logistics
and ICT
Gertraud Klinkenberg

12:2007   REGIONAL DEVELOPMENT IN ESTONIA - Development Measure Impact Analysis (DEMIA)
on regional development related to logistics and ICT
Jaak Kliimask

13:2007   REGIONAL DEVELOPMENT IN SOUTHWEST FINLAND - Development Measure Impact
Analysis (DEMIA) on regional development related to logistics and ICT
Kaisa Alapartanen and Heidi Leppimäki

14:2007   REGIONAL DEVELOPMENT IN LATVIA - Development Measure Impact Analysis (DEMIA)
on regional development related to logistics and ICT
Riga City Council - Rode & Weiland Ltd.

15:2007   N/A

16:2007   REGIONAL DEVELOPMENT IN POMERANIA, POLAND (THE POMORSKIE
VOIVODESHIP) - Development Measure Impact Analysis (DEMIA) on regional development
related to logistics and ICT
Anna Trzuskawska

17:2007   REGIONAL DEVELOPMENT IN SAINT PETERSBURG, RUSSIA - Development Measure
Impact Analysis (DEMIA) on regional development related to logistics and ICT
Mikhail Pimonenko

18:2007   REGIONAL DEVELOPMENT IN ÖSTERGÖTLAND, SWEDEN - Development Measure
Impact Analysis (DEMIA) on regional development related to logistics and ICT
Håkan Aronsson and Staffan Eklind

ICT surveys

20:2007   ICT SURVEY IN THE SOUTHERN METROPOLITAN REGION OF HAMBURG, GERMANY
Wolfgang Kersten, Meike Schröder, Mareike Böger, Carolin Singer and Tomi
Solakivi

21:2007   ICT SURVEY IN MECKLENBURG-VORPOMMERN, GERMANY
Eric Kron, Gunnar Prause and Tomi Solakivi

22:2007   ICT SURVEY IN ESTONIA
Seren Eilmann and Tomi Solakivi

23:2007   ICT SURVEY IN LATVIA
Riga City Council, Telematics and Logistics Institute Ltd. and Tomi Solakivi

24:2007 ICT SURVEY IN LITHUANIA
Darius Bazaras, Ramūnas Palšaitis and Tomi Solakivi

25:2007 ICT SURVEY IN SOUTHWEST FINLAND
Juha Läikkö and Tomi Solakivi

26:2007 ICT SURVEY IN POMERANIA, POLAND
Anna Trzuskawska and Tomi Solakivi

27:2007 ICT SURVEY IN SAINT PETERSBURG METROPOLITAN AREA, RUSSIA
Yuri Ardatov and Tomi Solakivi

28:2007 ICT SURVEY IN ÖSTERGOTLAND, SWEDEN
Naveen Kumar, Håkan Aronsson and Tomi Solakivi

Logistics surveys

30:2007 LOGISTICS SURVEY IN THE SOUTHERN METROPOLITAN REGION OF HAMBURG, GERMANY
Wolfgang Kersten, Mareike Böger, Meike Schröder, Carolin Singer and Tomi Solakivi

31:2007 LOGISTICS SURVEY IN MECKLENBURG-VORPOMMERN, GERMANY
Eric Kron, Gunnar Prause and Tomi Solakivi

32:2007 LOGISTICS SURVEY IN ESTONIA
Ain Kiisler and Tomi Solakivi

33:2007 LOGISTICS SURVEY IN LATVIA
Riga City Council, Telematics and Logistics Institute Ltd. and Tomi Solakivi

34:2007 LOGISTICS SURVEY IN LITHUANIA
Darius Bazaras, Ramūnas Palšaitis and Tomi Solakivi

35:2007 LOGISTICS SURVEY IN SOUTHWEST FINLAND
Tomi Solakivi

36:2007 LOGISTICS SURVEY IN POMERANIA, POLAND
Anna Trzuskawska and Tomi Solakivi

37:2007 LOGISTICS SURVEY IN SAINT PETERSBURG, RUSSIA
Valeri Lukinsky, Natalia Pletneva and Tomi Solakivi

38:2007 LOGISTICS SURVEY IN ÖSTERGÖTLAND, SWEDEN
Håkan Aronsson, Naveen Kumar and Tomi Solakivi

Expert interviews

40:2007 EXPERT INTERVIEWS IN THE SOUTHERN METROPOLITAN REGION OF HAMBURG, GERMANY - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Wolfgang Kersten, Meike Schröder, Carolin Singer and Mareike Böger

41:2007 EXPERT INTERVIEWS IN MECKLENBURG-VORPOMMERN, GERMANY - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Gunnar Prause, Margitta Rudat, Gertraud Klinkenberg and Eric Kron

42:2007 EXPERT INTERVIEWS IN ESTONIA - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Ain Kiisler and Seren Eilmann

43:2007 EXPERT INTERVIEWS IN SOUTHWEST FINLAND - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Matti Takalokastari, Matias Suhonen, Petri Murto and Hilja-Maria Happonen

44:2007 EXPERT INTERVIEWS IN LATVIA - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Riga City Council and Rode & Weiland Ltd.

45:2007 EXPERT INTERVIEWS IN LITHUANIA - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Ramūnas Palšaitis and Darius Bazaras

46:2007 EXPERT INTERVIEWS IN POMERANIA, POLAND - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Anna Trzuskawska

47:2007 EXPERT INTERVIEWS IN SAINT PETERSBURG, RUSSIA - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT Russia
Natalia Ivanova

48:2007 EXPERT INTERVIEWS IN ÖSTERGÖTLAND, SWEDEN - Results and analysis of the intersectoral expert interviews in the field of logistics and ICT
Håkan Aronsson, Staffan Eklind and Naveen Kumar

Regional Profiles

50:2007 REGIONAL LOGISTICS & ICT PROFILE: THE SOUTHERN METROPOLITAN REGION OF HAMBURG, GERMANY
Wolfgang Kersten, Meike Schröder, Mareike Böger and Carolin Singer

51:2007 REGIONAL LOGISTICS & ICT PROFILE: MECKLENBURG-VORPOMMERN, GERMANY
Eric Kron, Gunnar Prause and Gertraud Klinkenberg

52:2007 REGIONAL LOGISTICS & ICT PROFILE: ESTONIA
Ain Kiisler

53:2007 REGIONAL LOGISTICS & ICT PROFILE: SOUTHWEST FINLAND
Jarmo Malmsten

54:2007 REGIONAL LOGISTICS & ICT PROFILE: LATVIA
Telematics and Logistics Institute Ltd.

55:2007 N/A

56:2007 REGIONAL LOGISTICS & ICT PROFILE: POMERANIA, POLAND (THE POMORSKIE VOIVODESHIP)
Anna Trzuskawska

57:2007 REGIONAL LOGISTICS & ICT PROFILE: SAINT PETERSBURG, RUSSIA
Elena Timofeeva

58:2007 REGIONAL LOGISTICS & ICT PROFILE: ÖSTERGÖTLAND, SWEDEN
Håkan Aronsson, Naveen Kumar and Staffan Eklind

LogOn Baltic Master reports

60:2007 STRUCTURAL CHANGES AND TRANSPORT CHALLENGES - A report about the Danish structural reform
Kent Bentzen and Michael Stie Laugesen

61:2007 NEW TASKS – NEW APPROACHES - A study about the Danish structural reform
Kent Bentzen, Lars Bentzen, Helen Carter and Michael Stie Laugesen

62:2007 STRUCTURAL REFORMS IN DENMARK AND THE BALTIC SEA REGION: A Study of Transferable Experiences from the Danish Structural Reform
Kent Bentzen, Lars Bentzen, Helen Carter and Michael Stie Laugesen

LogOn Baltic Regional reports

70(FI):2007 VARSINAIS-SUOMEN LOGISTINEN KILPAILUKYKY
Matti Takalokastari (toim.)

71:2007 N/A (see other reports)

72:2007 N/A (see other reports)

73(FI):2007 N/A (see other reports)

Other reports in the LogOn Baltic publications series (not published by the Turku School of Economics)

DEVELOPING PASSENGER AIR TRAFFIC IN TURKU
Pekka Jaakkola

ENTERPRISE ICT CUSTOMER ENQUIRY - YRITYS-ICT ASIAKASKYSELY
Sari Vaihinen and Kalle Luhtinen

TURKU-LOIMAA-TAMPERE KEHITYSKÄYTÄVÄ
Loimaan seutukunnan kehittämiskeskus ja FCG Suunnittelukeskus Oy

*) LogOn Baltic reports published in any other language than English language are marked with a 2-digit country ID code. E.g. publication no. 70(FI):2007 is written in Finnish language.