

KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

Logistiikan koulutusohjelma / International logistics

Kähärä Petri

FINDING ARGUMENTS TO PROMOTE TRANSIT TRAFFIC THROUGH  
KYMENLAAKSO REGION AND ADDED VALUE SERVICES IN LOGISTICS

Bachelor's Thesis 2015

## ABSTRACT

KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

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KÄHÄRÄ, PETRI

Finding Arguments to Promote Transit Traffic  
Through Kymenlaakso Region and Added Value  
Services in Logistics

Bachelor's Thesis

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Keywords

transit traffic, added value service, logistics,  
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European Union, Russia, Brazil, trade

The subject of the study was to find arguments to promote transit traffic through Kymenlaakso area and added value services in logistics. The aim was to find a model how to benefit the most from the constantly changing world and from possibilities it offers. New, innovative and bold ideas were expected.

A survey based on theoretical part for the research reviewed was made in order to find out the position of the most important transit traffic operators and their added value services. The survey was sent to four greatest transit traffic operators in Finland and the Baltic States.

The results are based on the theoretical part and meetings and lectures because no answers to the survey were received. Conclusions are bold and critical despite the lack of proper research. More accurate conclusions could have been made with responses to the survey.

Actual arguments were not found to promote Kymenlaakso logistics. In fact, more concern for the state of the current situation is presented than anything promoted. The results are a three-point list to increase the regional attractiveness and to be more proactive in order to create growth in the constantly changing world.

## TIIVISTELMÄ

### KYMENLAAKSON AMMATTIKORKEAKOULU

#### Kansainvälinen Logistiikka

KÄHÄRÄ, PETRI

Argumenttien löytäminen Kymenlaakson transitoliikenteen ja logistiikan lisäarvopalveluiden markkinoimiseksi

Opinnäytetyö

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Opinnäytetyön aiheena oli löytää argumentteja Kymenlaakson transitoliikenteen ja logistiikan lisäarvopalveluiden lisäämiseksi. Tavoite oli löytää malli, jolla saataisiin paras hyöty alati muuttuvan maailman mahdollisuuksista. Tarkoituksena oli tuottaa uusia, innovatiivisia ja rohkeita ideoita.

Työssä esitellään laajasti aiheen teoriaa ja sen pohjalta tehtiin kysely suurimmille transitoliikenteen toimijoille. Kyselyn tarkoituksena oli selvittää toimijoiden asema markkinoilla ja heidän logistiikan lisäarvopalveluiden kattavuus. Kysely lähetettiin neljälle Suomen ja Baltian maiden suurimmalle toimijalle.

Tulokset pohjautuvat teoreettiseen osuuteen sekä tapaamisiin ja luentoihin aiheesta, sillä yhtäkään vastausta kyselyyn ei saatu. Päätelmät ovat niin kriittisiä ja rohkeita, kuin mahdollista, huolimatta kunnollisesta tutkimusmateriaalista. Tarkempiin johtopäätöksiin olisi päästy saamalla vastauksia kyselyyn.

Varsinaisia argumentteja Kymenlaakson logistiikan markkinoimiseen ei löydetty. Tosiasiassa opinnäytetyössä esitetään enemmän huolta nykytilanteesta, kuin markkinoidaan mitään. Tuloksena on esitetty kolmen kohdan lista, jolla lisätä alueen vetovoimaisuutta sekä proaktiivisuutta alati muuttuvassa maailmassa.

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## 1 INTRODUCTION

The aim of this study is to find arguments to sell transit traffic services and additional value services for clients from Brazil. Representatives from organization FIRJAN from Rio De Janeiro, Brazil, have visited Kymenlaakso with an intension to start transit traffic through Finland to Russia. FIRJAN (Federations of Industries of the State of Rio de Janeiro in Brazil) is an organization that represents “9170 associate industry and business members” (FIRJAN, 2014).

What makes co-operation with Brazilians topical are the sanctions the European Union has taken in practice against Russia because of actions that undermine the stable conditions of Ukraine. These sanctions prohibit exporting specific products to Russia, set travel bans and freeze funds of certain people. (Ministry of foreign affairs of Finland, 2014). Alongside the EU also USA, Canada, Australia and Norway have put sanctions against Russia.

The EU’s sanctions caused Russia to formulate countersanctions. These sanctions prohibit the EU countries, USA, Canada, Australia and Norway exporting agricultural and food products to Russia. (Kauppakamari, 2014). Obviously, this creates possibilities for many companies from the countries not on the ban-list to take advantage on the markets when many previous players have to leave.

With this background, it is no wonder that Brazilian companies are looking for co-operation on the Kymenlaakso area. Brazilian companies already have business with Russia and now they have a chance to make it bigger. Before the sanctions the export from Brazil to Russia was nearby \$280 million in a month. In June 2014, after the first sanctions were placed, export levels skyrocketed to more than \$400 million and in November 2014 it was around \$470 million. (Trading economics, 2014).

## 1.1 Theoretical framework

In order to better understand the present situation and to find strong arguments for conclusions the relative theory is presented. The theoretical framework covers *transit traffic* and *additional value services in logistics*. The theoretical framework itself does not offer any new argument but instead clarifies the backgrounds and the meaning of processes. The theoretical framework may also lead to approach the problem from new aspect and gather information that would not have been otherwise studied.

A survey for major transit traffic operators is made to find out their view of the situation in the market. The survey will aim to find out how operators see their position among others and what they see are their strengths and weaknesses. In the same survey value added services in logistics are examined. The coverage of value adding services in the market area are aimed to find out. By that way it may be possible to show if lacks or strengths in Kymenlaakso exists.

Transit traffic is transportation of goods between two countries through a third country. Transited goods are not bought to the third country, neither are they declared or statistically compiled to foreign trade. (Sundberg et al. 2010, 24).

Transit traffic and the operations connected to it are highly important for the economy of Kymenlaakso. Kymenlaakso shares part of Finnish-Russian border and that is why Kymenlaakso has had great opportunity to make business with companies and people who want to transit to Russia. Another reason besides vicinity with Russia for evolvement of transit traffic in Kymenlaakso is the location by seaside. South-East Finland is the only place with Russian border line and offshore possibility.

Nowadays Finland has two significant transit traffic harbours which are HaminaKotka and Kokkola. In 2012 from all the transited goods in Finland 93% was through these harbours. (Salanne et al. 2013, 8). It should not be forgotten that transit traffic moves to both directions; goods are going through Finland to Russia and from Russia through

Finland to a third country. When goods are transported to the east in context of transit traffic in Finland it is called import and when goods flow to the west it is called export. Speaking in context of Finnish transit traffic, import means the direction to the east, generally but not only to Russia, export encompasses the rest of the world (Kuukka, 2014).

Additional value services are supporting services to increase the value for customer's product or service. Added value offers such benefits that cannot be reached only by core functions. Well produced added value services may enhance core function and raise demand. Creating additional value is usually not critical for core functions of the product or service, but it may raise customer's interest and that way lead to improved position on markets. (Posti et al. 2009, 104).

Customer's positive experiences for additional value services are essential for long co-operation between companies. In logistics, added value is built on the logistic basic value. Basic value means the value basic supply chain management creates. Logistic basic value aims to fulfil the expectations of quality in customer service and at the same time minimizing the supply chain expenses and maximizing partner's profits. In most cases added value cannot be produced without existing logistic basic values. The form of added value, besides the basic value, influences exceeded expectations, nature of added value and competitive advantage. (Posti et al. 2009, 103).

## 1.2 Objectives of study

The main objective in the research is to find arguments firstly for transit traffic and secondly for additional value services to present for the potential clients from Brazil. Besides the theory of transit traffic and additional value services to find most innovative solutions, it is also useful to consider the present and the near future of countries related to the study.



The wish from Tommi Laaksonen (Laaksonen, 2014), the CEO of the company Centos Central Logistics Oy, was that “research should strive out of general level reports.” Concerning to above mentioned, he encouraged to present creative and bold visions and opinions without fear of being wrong. For him the best solution would present a model to react fast in logistics operations, making the most from the possibilities of the constantly changing world.

The starting point for the research is to clarify the importance of transit services in Kymenlaakso. Another point is to look into the diversity of present services and their utilisation rate and also the potential for the future. Are the Kymenlaakso’s logistic service providers willing to co-operate and how much? Could it even be possible? Brazil is one of the world’s greatest beef producers and Russia has banned food exporting from the EU. Referring to Laaksonen and Antti Nummi, the port of HaminaKotka does not have massive cold warehouses to storage meat (Laaksonen, 2014; Nummi, 2014). Cold warehouse could be a reasonable matter to invest.

It is plausible that Brazil could be interested in Finland as a safe country to operate. Finland has stable society and long history in co-operation with Russians as our neighbours. Finland might be seen also as a technological country, but as an argument in logistics it may be open to question. In order to fully utilize technology it might need same development from all participants. Speed in logistics is one of the key factors. It might be possible to haul goods faster through other countries than Finland. Speed in reactions to new issues should be discussed. To be able to be proactive is something to reach for.

The best solution from this research updates the present situation and provides ideas for the future. The offered solutions should be reliable, applicable and explicit for clients and their interest groups to use. Ideas are usable and encourage to rethink one’s operations. Innovation and freshness into ideas are tried to include as much as possible.

### 1.3 Organisations behind the study

There are two organisations behind the research. The primus motor was NELI (North European Logistics Institute) that introduced for Centos Central Logistics Oy the possibility to be part of this research. Both being the background forces they have brought the best part of their organisations to this study, the research and development of NELI with the empiric of Centos Central Logistics Oy.

#### 1.3.1 NELI – North European Logistics Institute

NELI is a part of Kymenlaakso University of Applied Sciences (KUAS) Research and Development department. NELI used to an independent project but since 2014 it has been part of KUAS. It actively develops and renewal logistics and maritime education. NELI is an important part of regional and international development, research and innovation network. Mission for NELI is to improve companies' logistical competitiveness and create base for growth and new business. NELI envisions to be well-known and recognised not only in Finland but also abroad by 2017. With NELI's activity Kymenlaakso reaches its strategic goals in logistics and will be the leader in logistics know-how and innovations. (KYAMK, 2015).

#### 1.3.2 Centos Central Logistics Oy

The company is privately owned a globally operating logistics company. It has been established 1998 and has operated in Finland since 2000. It originated from Hamburg, Germany, where the headquarter of the company still is. Other offices are located in Germany, Russia, Finland, Ukraine and Korea. The company have around 200 employees. Centos Finland operates a bonded warehouse in Hamina. The company is specialised in warehousing, forwarding and transportations on road, rail, air and sea, most strongly in Russia, CIS countries and Europe. (Centos Finland, 2015).

## 2 THEORY

In this chapter transit traffic is discussed theoretically. To build competitive and justified arguments, a theory of transit traffic and additional services are explained in general.

### 2.1 Concept of transit traffic

Transit traffic is transportation from one country to another through a third country. In transit traffic a third country is holding only go-through position in a two other countries' business. Hereby transited goods are not declared, compiled or bought to the third country. For example transportation, where goods arrive from Brazil and are destined to Russia, passing directly through Finland is considered to be Finland's transit traffic. (Posti et al., 2009, 34).

A country does not become important for transit traffic by accident. It has to have something it may claim its rightful place to be middleman in the business. In transit traffic a term gateway may be used, a natural position for other countries' international transportation operations. Mostly the position is based on good connections and logistical infrastructure. Finland may be thought to have a gateway positioning in Russian's foreign trade. (Sundberg et al., 2010, 24).

Gateways hold strategic position in international trade by being a link between geographical areas or regions. Gateway position holder should effectively connect land, sea, air and other modes of transport, provide adequate infrastructure, be "free of trading barriers and administrative obstacles" to enable smooth flow of goods, people and information. Also it should hold strategic location, good connections and when addressing this role for ports it should execute operations effectively and offer vast scale of services. (Tongzon & Oum, 2007, 1-2).

### 2.1.1 Eastbound and westbound transit traffic

Finland's eastbound transit traffic route is one of the most important routes for transporting valuable goods from the EU to Russia. In east transit, which may also be called import transit, goods arrive into harbours from where they are further delivered by trucks and trains to Russia. Goods can be unloaded and reloaded by customers' needs in a bonded warehouse located in Finland. While Russian infrastructure develops, more and more goods are freighted straight to Russia especially container transported valuables. This cuts off Finland's part in unloading, intermediate storing and offering value adding services. (Posti et al., 2009, 34).

Railroad transportations' share from transportations is slender which is basically caused by problems in Russian customs clearance. It has been practically impossible to perform clearance anywhere else than in destination country's customs. The tendency among customers has been to carry out customs clearance in own facilities instead of railway stations. Another reason for low railroading has been the difficultness to catch single carriages. Alternatively container carriages to Russia with full trains are believed to increase. VR (Finnish Railways) and Russian railroad companies have started a co-operation by establishing shared companies to improve competitiveness in transit traffic on rails. In the year 2007 VR and Russia's railroad company RZD (Russian Railways) collaboration business called Container Trans Scandinavia began regular container railroad traffic. VR and freight traffic company PGK (Freight One Company) owned by RZD, started their collaboration in 2009 establishing a joint enterprise Freight One Scandinavia Oy to better meet their customers' needs. Functional railroad connections to Russia is one prerequisite in maintaining and increasing Finland's competitiveness. (Sundberg et al., 2010, 40).

In east transit slender amounts of goods are freighted by air to Finland and then by land to Russia. 3,000 tonnes of transit cargo was handled through Helsinki-Vantaa airport in year 2009. Also some of transit traffic flows through Finland's northern borders. (Sundberg et al., 2010, 40).

Westbound transit or export transit is mainly railroad freighting from factories located in different parts of Russia to Finnish ports to be delivered to several third country destinations. Goods are mostly low in value and unrefined which is why railroads are very suitable for west transit. Land transportations are not much exploited. Besides southern Finland, some amounts of transit traffic flows through northern border lines. (Sundberg et al., 2010, 44).

## 2.2 Concept of added value

When creating an added value, customer's experience about the offered service or product is essential. Added value here means special value over the products or services basic value. Creating special value is usually not critical for the normal function of the product or service, but it increases the attractiveness for customers. The added value may cause extra costs but it also adds competitive advantage and increases customers' interest towards company. From the logistics point of view an added value is formed by main elements shown in the figure 1. On the basis for creating an added value in logistics is the logistical value; the value basic logistical actions create for supply chain. Logistical actions aim to fulfil customer service demands at the same time reducing supply chain costs and maximizing partners' profits. As was said earlier an added value in logistics is built on the basic logistical value; it is generally not possible to create added value in logistics without logistical value. Besides logistical value, the formula of added value in logistics includes oversetting expectations, the added services and competitive advantage that can be used to produce special added value. (Posti et al., 2009, 103).

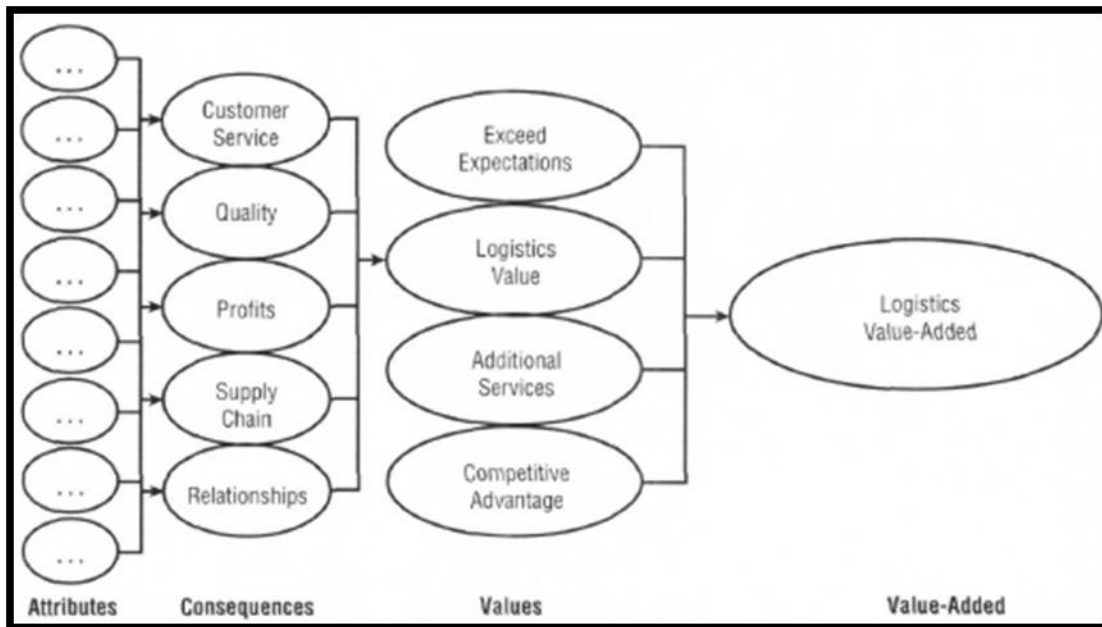


Figure 1. Formation of added value in logistics (Rutner & Langley, 2000, 79)

An added value service is a product supporting service or actual service providing an additional value for the customer. A value adding service brings benefits to core product or service that is not already input. When implemented well so that the final customer feels additional value worthy, added value may increase the demand of the core service or product. Additional value services and products usually do not work only by themselves; core product or service is needed to gain value for added service. (Heikkilä et al., 2006, 3).

Added value in logistics is surplus that exceeds basic logistics operations such as warehousing, transshipment and transportation. In logistics an added value creates extra value for the whole supply chain or to the transported goods, separately or at the same time. Ports are natural places to offer value adding services as they are node points in transportations. In ports value added services increase competitiveness and attract more business. Added value can be provided for goods, transport units, vehicles and companies involved in the supply chain. (Koch, 2006, 33-35).

Rutner & Langley (2006) define the logistics added value as a service either providing additional service or exceeding customer's demands so that in long run supply chain costs are reduced or partner's profits are ascended or competitive advantage on the market is improved.

Services are usually compared with physical products, but services cannot be experienced concretely like products, even though both can be sold and bought. More likely than a concrete matter, the service is a process or a function and very intangible by nature. Services generally include some kind of interaction with the service provider but the customer is not always personally in interaction with the service provider. Differences between services and physical products are displayed in the table 1. (Grönroos, 2000, 79-81).

*Table 1. Differences between physical goods and services (Grönroos, 2000, 81)*

<b>Physical goods</b>	<b>Services</b>
Tangible	Intangible
Homogenous	Heterogeneous
Production and distribution apart from consumption	Production, distribution and consumption are simultaneous process
Matter	Function or process
Core value is produced in factory	Core value is produced in the buyer and seller interaction
Customer (normally) do not participate to production	Customer participates to production
Can be stored	Cannot be stored
Possession shifts	Possession does not shift

The limit of logistics core functions and added services are shady in many cases. Some function can clearly be a core function for one company whereas for another company it may be an added value service. This can be seen in product and service level. One company may consume special services or services generally so much that it is thought as

a standard procedure, whereas not so experienced customer may see even the simplest services as an additional. Also the terms for logistics value and added value in logistics are understood differently depending of the position and field of business. All this hampers the overall definition of added services. (Posti et al., 2009, 105).

### 2.2.1 Development of added value services in logistics

Nowadays the companies aim to allocate their resources to core activities, development and customer relation management, ergo not-main-operations are *outsourced* or subcontracted from third parties. Globalisation, customer orientation, lead time reductions and outsourcing have big influences in the demand for advanced logistics services. While adjusting to changing markets, logistics companies aim to offer wider service packets for global needs. Logistics is one of the most outsourced operations and many companies nowadays have third parties to take care of non-core activities. (Hertz & Alfredsson, 2002, 139; Kivinen & Lukka, 2002, 7; Solakivi et al. 2010, 36).

The companies have outsourced their logistics operations in rising numbers to be able to focus on their core activities. Logistics is, in many companies, thought to be only a compulsory function not belonging to core operations. Even though for example in the Baltic Sea countries logistics costs from revenue fluctuates in industry between 8-20% and in commerce 10-23%. Globalisation has made supply chain management complicated and at the same time it has become a part of global value chain. Companies may compete with supply chains to create an advantage on the market. (Heikkilä et al., 2006, 3-4; Posti et al., 2009, 105; Solakivi et al., 2010, 36, 42).

Different goods have different requirements which has led for tailored services. Long delivery distances, complicated custom and trade statutes and sometimes a poor infrastructure should take into account when planning a supply chain as well as security issues. This all has increased inspections and documentation in the international logistics. Logistics services have developed as the service providers sizes has grown; they concentrate on executing their core function logistics being able to provide customised



services bringing profitability for themselves and for customers. Besides transportation and warehousing services, information technology and consulting have taken their place on the market. (Kivinen & Lukka, 2002, 23; Solakivi et al., 2010, 36).

The general tendency is providing services in a supply chain. Nowadays the companies offer very similar basic functions so the competition happens in services fulfilling core functions. Added value services have become to replenish the traditional handling of goods. (Posti et al., 2009).

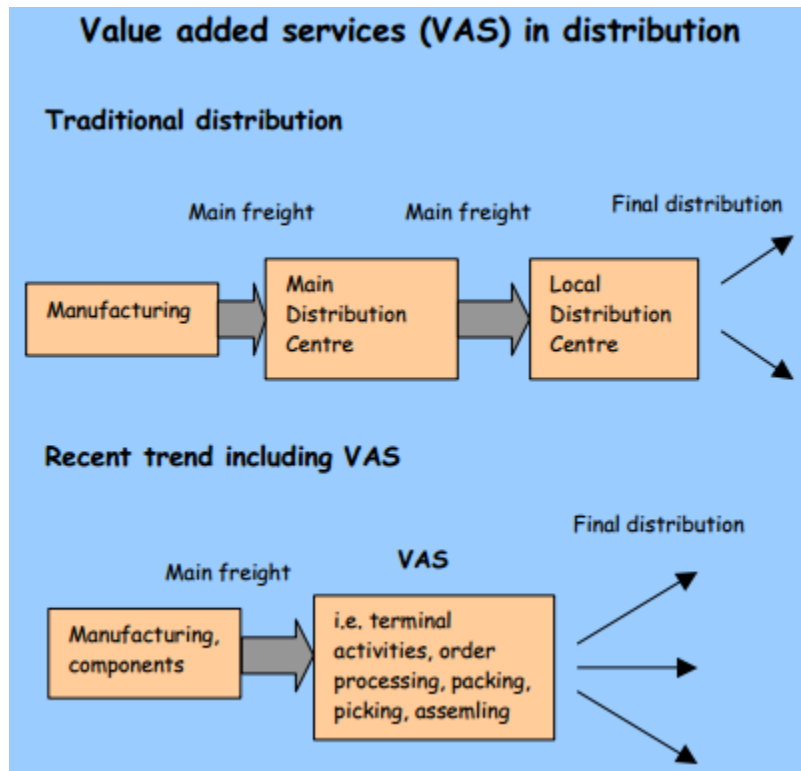


Figure 2. Value added services (VAS) in traditional and recent trend distribution (Heikkilä et al., 2006, 5)

1. In traditional distribution system main freight lines connects manufacturing, main distribution centre and local distribution centre from where final distribution is finally made.

2. In distribution system including value added services main freight line connects manufacturing to value adding services provider from where the final distribution is made.

In the traditional distribution model the products are manufactured as finished as possible so there is actually no place for value added services later on. In the trend system manufacturing is left unfinished and transported for the added value service provider. Logistics service providers offer all the logistics services and also may change physical features, customise and manufacture the products before delivering for the end user. This kind of action is called postponement; it has two economic benefits for a manufacturer, minimized risk and reduced total inventory whose combination can lead to reduced costs (Bowersox et al., 2013, 231). A modern way for distribution obscures the traditional factory - distribution centre - local distribution centre – end user pattern. (Heikkilä et al., 2006, 4).

### 2.2.2 Outsourcing logistics

Outsourcing is the transfer of some operation to external company for implementation. By outsourcing the companies usually reaches for cost savings and elasticity of the production. When planning outsourcing there should be considered carefully does the operation belongs to core functions or no. It is also important to clarify the costs of the operation and compare them with the costs for outsourcing to find out the maximum benefits. After outsourcing company's operation related fixed costs transforms to variable costs. (Ritvanen et al., 2011, 143).

There are many reasons to outsource logistics like greater flexibility, lower fixed costs, improved service levels at lower costs, more efficient utilisation of new technology, reduced direct labour costs or logistics is not important for the company. Benefits are also reduced inventory and out of stock situations resulting from collaborative forecasting, improved capacity during peak seasons or promotions, access to and knowledge about the global marketplace by the co-operational party's experience and relationships and

managing governmental regulations without own effort. Even though there are numerous advantages in outsourcing the most important benefit must be that outsourcing company can concentrate fully on its core functions, executing and investing only to it. (Kivinen & Lukka, 2002, 38; Langley et al., 2007, 20).

As there are many advantages in outsourcing logistics there are also disadvantages and counterarguments. Solakivi et al. (2010, 114-115) presents in their report reasons and hindrances why companies are not outsourcing their logistics functions:

1. Doubt for own improved service level
2. Losing control of activities
3. The amount of savings is not founded to be enough
4. Third party providers know-how was estimated too low
5. Difficulty to estimate service levels offered on the markets
6. Difficulty to follow-up costs
7. Losing independency
8. Not willing to outsource core functions
9. Lack of knowledge exploiting outsourcing

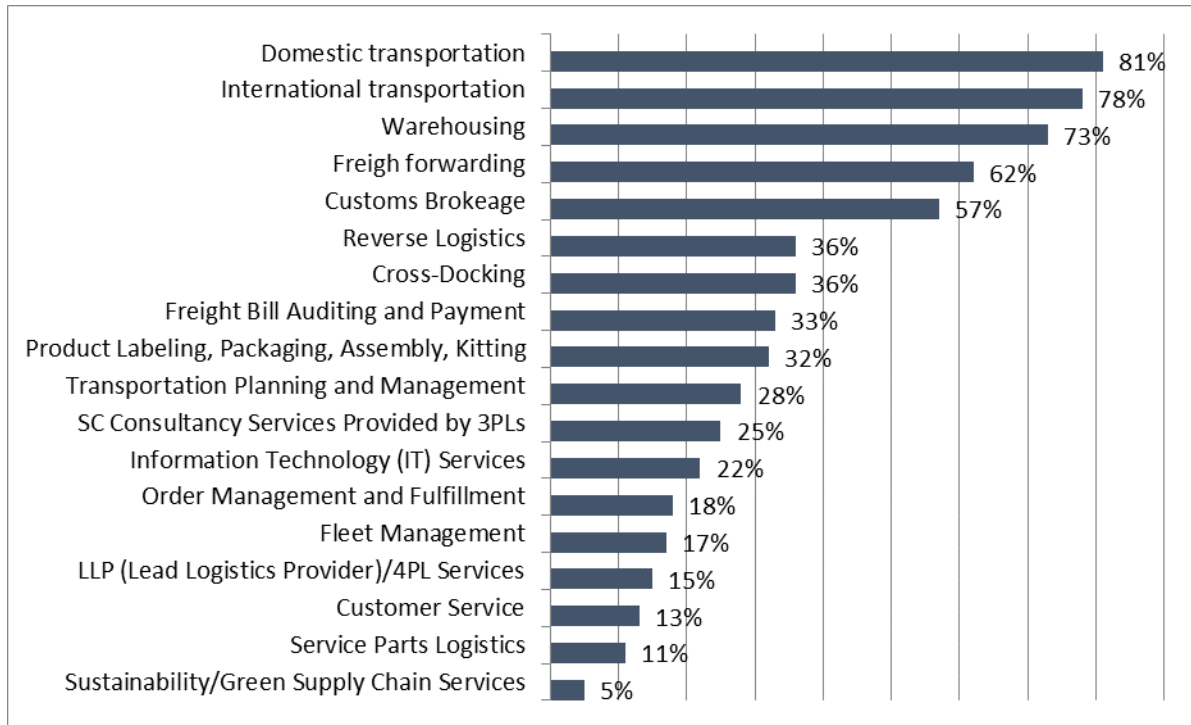
Kivinen & Lukka (2002, 39) present similar results in their study. The reasons they add to the previous list are that activities are already substantially outsourced, bad reliability towards third parties and resistance of own organisation.

Outsourcing is always a risk so third parties should be evaluated carefully before making deals. When functions are bought from outside the own know-how will deteriorate, which may lead into a situation where company loses its ability to estimate costs of operations and skills of third party personnel. Also the risk for information leaks is real. Companies starting to collaborate should share similar values and goals and agree for reachable benefits and how to measure them. If outsourcing is proved to be a bad decision the deal must be cancelled and the operations taken back to the own production. Taking back operations from third party is called insourcing. (Ritvanen et al., 2011, 143-144).

Lehikoinen and Töyrylä (2013, 44-45) also point out as possible risks losing control and know-how and leak of confidential information. Other existing risks are negative image for the personnel and company brand, decreased service levels, ability to integrate functions between companies and disintegrated processes among one or more service provider which may cause slowness and bureaucracy. There is also a risk for failed outsourcing although supreme caution is practised. Cancelling co-operation deals creates costs and in the worst case it may be hardly possible. Public organisations have also political risks.

To create more profitable relationships and to reduce risks in outsourcing process both parties making deal need to understand each other's objectives. Thus it will be easier to discuss how they can create more value for each other. Besides the shared objective the more companies have in common the better. Vision, goals, culture as an abstract matter, professional personnel, alignment of processes, responsible executives as a concrete matter. Trust and commitment on both sides is necessary when looking for long time co-operations. Communication between parties is essential, not only regular but trustworthy and meaningful. Developing strategic plan for a long-term collaboration can be significant value; planning both parties overall benefits, shared decision making to foster consensus in important matters. One of the most important things to decide is the measurement, many kinds are needed to proof and share gains, losses, investments and duties in operations i.e. key performance indicators (KPI). (Langley et al., 2007, 23-25).

Table 2. The logistics operations companies outsource most (Terry, 2014, 12)



The table two shows the percentages of outsourced specific logistics activities in companies. Statistics are from annual 3PL study and data reveals information of North America and Europe. Most outsourced activities are typically repetitive and operational, like transportation and warehouse related activities, which can be seen on the table above. Strategic activities like management, IT- and other services are less outsourced.

### 2.2.3 Logistics service providers

Logistics service providers are companies that provide logistics services for other companies. Their core function is logistics and thereby their services reach the maximum efficiency in service they provide, the economies of scale can be utilised. They have optimised methods, professional personnel and equipment. (Okkonen & Lukka, 2004, 12; Jalanka et al., 2003, 8).

Generally the outsourcing can be divided into four categories. First level is buying single services, having normal buyer-seller relationship for services without co-operation. On the second level more than one service is outsourced. Third level of co-operation is where company outsources its logistics totally or major parts. The widest, fourth co-operation level typically means that company makes a deal with one service provider and outsources the whole supply chain. (Jalanka et al., 2003, 8).

In one party logistics (1PL) a company takes care of its own business, planning, execution and managing logistics operations. In two party logistics (2PL) a company buys logistics services from second party for specific separate needs. Third party logistics (3PL) means that a company outsources supply chain related functions and third party takes full responsibility for practising them. Outsourced functions are not core functions but routine ones like transportations or warehousing, so outsourcing company stays steering its logistics. Four party logistics (4PL) is total control of logistics services by third party. A company can outsource many of its functions at the same time, sometimes from different fields of operations. In these cases third party handles whole supply chain coordinating and connecting different services, service providers, knowledge and technology. Logistics is combined into a network which is responsible for steering and developing its customer's supply chain. (Okkonen & Lukka, 2004, 8-9; Ritvanen et al., 2011, 128).

Nowadays 3PL providers offer more developed technical services and subcontractors are expanding their operations to logistics serving manufacturing, warehousing and transportations at once. That has led boundaries between subcontractors, 3PL and 4PL providers to blur during last decade, mostly because of mounted demands and increased amounts of outsourcing projects where logistics service providers want to be involved. On the other hand companies deal with many subcontractors and logistics service providers at the same time aiming to save money and to keep low commitment. (Okkonen & Lukka, 2004, 15).

Above is discussed about 3PL and 4PL becoming harder to recognise. Same issue is brought up by Hertz and Alfredsson (2003, 140-141) in their research. They have categorised third party logistics (TPL) providers into four groups which are presented below.

**Standard TPL provider**, commonly offers standardised TPL services like warehousing, packing and delivering alongside its normal business.

**Service developer**, dispensing advanced value adding services. Service package could involve several sets of more standardised activities into modules that could be combined depending customer's needs. Differentiated services can be for example cross-docking, security systems or track & trace. Service provider does not aim to create specific service for each customer but creating economies of scale and scope.

**Customer adapter** is a service provider which has usually only few close customers. It takes over some of customer's existing activities like warehousing and may improve them but not so much the services.

**Customer developer**, the most advanced form which integrates itself with customer taking over the whole logistics operations. It does not only control but also improves operations and its services are highly developed and need professional knowing. That is why the customer developer has limited customers and it forms deep relation with only a few of them. This kind of collaboration puts service provider into a position where it shares risks but also rewards with the customer.

Okkonen and Lukka (2004, 14) point out also the terms of Lead Logistics Provider or Lead Logistics Partner (LLP) which can be confused with 4PL. LLP is more like 3PL provider paying attention to strategic view, planning and management of change in its operations. LLP co-operates with other 3PL providers for the customer's advantage but does not own facilities or equipment, still offering wide range of services which is mainly the reason for confusing to 4PL providers.

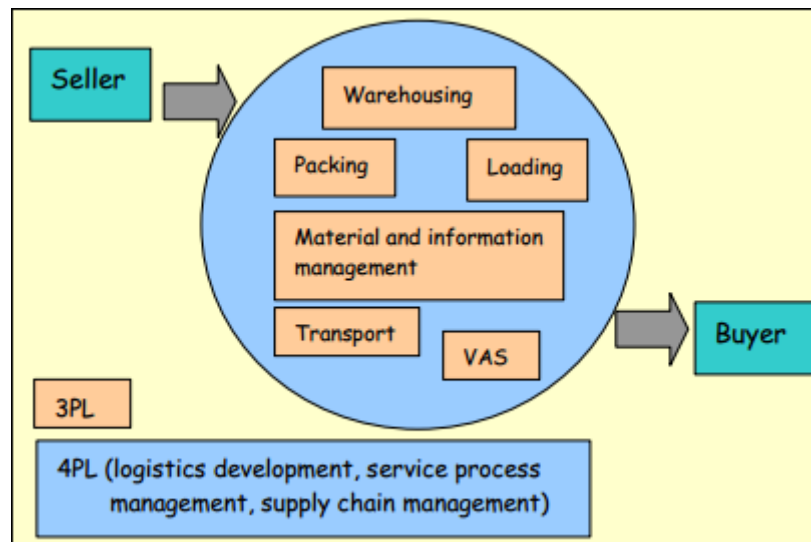


Figure 3. The principle of 3PL and 4PL in logistics (Heikkilä et al., 2006, 4)

The figure 3 demonstrates 3PL and 4PL in supply chain. While 3PL provider is offering singular services between seller and buyer is 4PL provider taking care of all services.



#### 2.2.4 Added services in logistics

As stated already in chapter 2.2 the line between core service and value added service may be blurry or certainty is not clear. This chapter lists common value adding services that exceed the basic functions in logistics and bring value to supply chain. Value added services can be divided into three categories where one is dependent on the core service and provide additional value to some actions in supply chain. The second group is where value added services are not dependent on specific core service and bring value to whole supply chain instead of specific parts of it. The third group are those additional services which can belong to any group (Heikkilä et al., 2006, 8).

Services that are conditional on the core service and provide added value to some service included in supply chain.	Value added services that are not conditional on the certain core service and bring in added value to the whole supply chain instead of some specific service.
Consolidation and deconsolidation Manufacturing Packaging and identification Repair and installation	Car parks Customer services Repair services for transport equipment Research and consultancy Washing and filling station Welfare services
<b>Both ... and</b>	
Customs services Information systems and technology Procurement Quality control Reverse and return logistics Veterinary services	

Figure 4. Common value added services in logistics (Heikkilä et al., 2006, 8)

**Consolidation and deconsolidation** is loading and unloading deliveries coming from many suppliers and distributed for many customers. Manufacturers usually use several suppliers from which consignments do not arrive at the same time. Because different times for goods arrival exist is value adding service to provide consolidating; service provider gathers the customer's consignments together and forwards them in one delivery. Deconsolidating instead flows to another direction; manufacturer may send

goods to different addresses at once for service provider, who then separates and consolidates new deliveries to leave in right time to right place. (Heikkilä et al., 2006, 6).

**Manufacturing** services are usually concentrated for hi-tech, electronic, car and retail industry. Some manufacturers produce basic products that can be easily modified for any markets. Services may be like finishing, assembling or preparation, the purpose is to prepare products for the end-user. After postponed manufacturing by service provider products are ready for delivery meeting the demands of the end user. (Okkonen & Lukka, 2004, 22; Posti et al., 2009, 114).

**Packaging and identification** services include for example packaging, re-packing, co-packing and labelling. It is essential to use proper materials for durability, re-use and sustainability. This may need developing service and materials specifically for customer's needs. Part of this service may be putting country or product related accessories, spare parts, guide books, advertisements or price information into to the package. Co-packing is needed when name of the brand from manufacturer's to customer's have to be changed during delivery. Identification and tracking of goods are important for minimising losses. (Heikkilä et al., 2006, 6; Posti et al., 2009, 113).

**Repair and installation** services are like an extension for manufacturing. Service provider may offer small repair and installation services for new and old products. Repairs or changes in product can be made before delivering to the end user which is clearly better option than do it afterwards. (Heikkilä et al., 2006, 6).

**Procurement** services are important for the companies trying to reduce amount of suppliers. Procurement services can be divided into three categories. In category of purchasing contract services, the service provider does all the things related to procurement. It is responsible for negotiations, ordering and delivering and quality procedures behalf of the customer. Call-off service is a type of procurement where customer is responsible for procuring and service provider takes care of material calls according to customers demand. The control of material flow and reporting is on service

provider. The third type of procurement is project procurement where procurement service is outsourced temporarily. (Heikkilä et al., 2006, 6; Posti et al., 2009, 114).

**Quality control** can be done at any point of a supply chain. It is reasonable to do it before and after transportation to avoid transport of damaged goods. Thereby it is also possible to point out liable parties for the possibly occurred damages immediately.

Quality control can be a strategic or operational service. A strategic view is developing of systems, operational instead is concrete observing of goods. (Latva-Pukkila et al., 2008, 32; Posti et al., 2009, 114).

**Reverse and return logistics** refers to activities of returns management, remanufacturing and repair, remarketing, recycling and disposal. Returns management is making easier the reverse flow of products which were not sold or to place recalls. Remanufacturing and repairing are for putting the reversed material back to its initial purpose. Updated or refurbished products can be sold as appropriate or reused. The purpose of remarketing is to resell those products the customers do not need anymore. In the recycling material from products are returned back to use as a components or raw material for new products. Metals, plastics, glass and other worthy commodities are in the focus of recycling. If material cannot be used effectively it still may call for reverse logistics to be disposed properly. (Bowersox et al., 2013, 229).

**Customer services** can also be offered as a value adding service. It may contain call-centre services, spare part deliveries or after sales marketing for example. Services are strongly customer related. Logistics service provider may combine many other companies offering customer service and by that way provide a 24/7 service for its own customers. (Heikkilä et al., 2006, 7; Okkonen & Lukka, 2004, 21).

**IT-services** are more demanded all the time as it makes managing supply chain easier. Information can be guided for interface service provider who takes care of delivering information for further parties like transportation company, customs or other authorities. This has become more important when new kind of security issues have raised. Many

countries and the EU have started to demand electronic prior notices to reduce risks in international transportations. (Ritvanen et al., 2011, 126).

Services of information technology can be exploited almost in all operations of logistics. Benefits can be gained for example in warehousing with proper data systems and in transportations when deliveries can be monitored in real time with advanced data transmission. Globalisation and concrete benefits from information technology will increase demand for its services. It is easier to organise and lead an electronic communicating system than a traditional systems and it also reduces mistakes radically. It is essential for all the parties of supply chain to have IT-services that fit together to maximise benefits. (Heikkilä et al., 2006, 7; Posti et al., 2009, 114-115).

**Customs service** providers offer help with all kind of documents and guiding through border authorities duties. Service includes inter alia customs clearance and document handling. Customs habitats may differ from country to country which is the reason why the customers may need help in customs clearance and further details about process. (Posti et al., 2009, 115).

Inland trade is a trade done between partners without customs or other authority formalities. Inside the EU borders all trade is considered to be inland trade. Not only physical goods and information flows are aimed to be eased as much possible but also monetary transactions; banks in the EU have agreed for Single Euro Payment Area (SEPA) to foster trade. Goods coming outside the EU are foreign trade and under customs clearance. Monitoring and testing for foreign trade are done for example for security or health issues. Goods under surveillance may need special documents like import licence or certification for country of origin. Sometimes customs tariff have to be paid in accordance to customs tariff. The EU controls foreign trade also because of politico-commercial or other political reasons. (Ritvanen et al., 2011, 130).

**Research- and consultancy services** deliver information and knowledge of issues for supply chain partners they do not initially have. By these services it is possible for the

customer to benchmark its own executing of processes to its competitors in order to develop. Also customers who are operating geographically far away may receive vital information about places they do not exist, for example if planning a side office or taking over a new market area. In the best cases consultancy services may help to develop tailored comprehensive solution for any customer's needs. Educating the customer to improved logistics belongs to consultancy too. (Posti et al., 2009, 115).

Other value adding services are not as straight connected to handling of goods. Car parks, transport equipment rental or vehicles and equipment repairing services are sometimes considered to be value adding services in logistics. Also washing and filling station services, weights and measurements department goes with others. Welfare services for example for truck drivers do not directly relate to handling of goods but may be greatly valued by some customers. Veterinary and financial services are considered as an additional value services as well. (Heikkilä et al., 2006, 7).

### 3 TRANSPORTATIONS BRAZIL – EU – RUSSIA

This chapter covers transportations between Brazil, European Union and Russia. Some background is explained and the most important routes and modes of transportation are defined. Only western part of Russia is handled as it is obviously the part concerned to this research. Competing trade routes are compared, putting the most value to the ports.

#### 3.1 Backgrounds

After the collapse of Soviet Union the ports of Kaliningrad and others at the bottom of the Gulf of Finland remained for Russia. The use of Kaliningrad port is troublesome because of its special position, so that the transportations on land have to be delivered through Lithuania and Belarus. In the Gulf of Finland the eastern parts are complicated due to the ice in the winter. Capacity of ports on this area has increased notably not until

the past decade. Baltic region and Finland have a significant role in Russia's foreign trade. A high level of transit traffic has been caused by lack in Russia's port capacity with increasing growth in economy and foreign trade. Besides this Russia has oil pipes reaching Baltic ports which are utilized for export. (Lautso et al., 2005a, 51).

Although present situation is tense in terms of trade between the EU and Russia, they have had strong relationship. In 2013, Russia was the EU's third largest trade partner and the EU the biggest for Russia, goods trade volumes between them reaching €325 billion. The EU was also supporting Russia when they started the process of applying to the World Trade Organisation (WTO) until they were accepted 2012. Parties have co-operations in many fields from example from transportations to science, from energy to human rights. (European Commission, 2014).

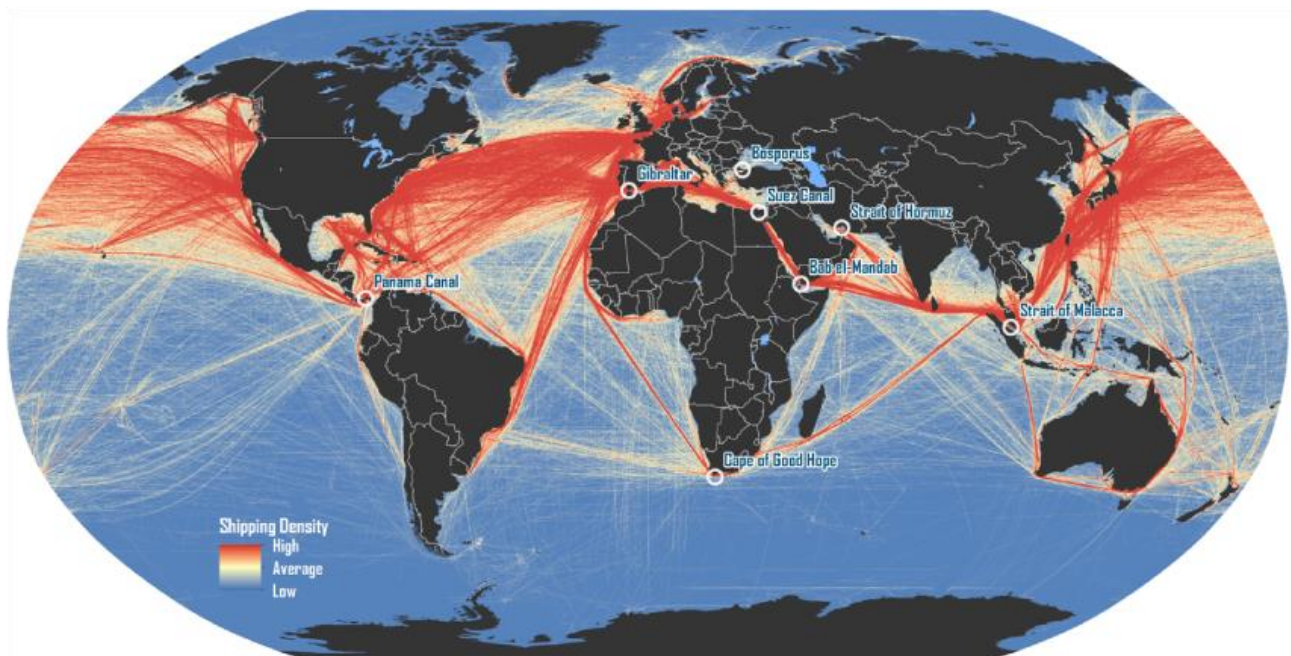
### 3.2 Traffic routes between the EU and Russia

Research concentrates to find arguments to market transit traffic through Finland to Brazilian partners. The only ways for goods to arrive from Brazil to Europe are by sea or air. The main routes to Russia in west run through Baltic Sea, Russia or as transit traffic through Finland and Baltic countries harbours. Alternative choices are land routes from the EU's biggest harbours. The Black Sea route is presented slightly as it also serves an existing route to the big markets Russia have in western parts of the country.

Referring Kompalla & Nestmann (2009, 1) from 83 regions Russia has, nine of them holds 45% of Russia's gross domestic product (GDP) and is home for seven from eleven cities with over one million habitants in Russia. These nine regions lay in an area which is bordered with the EU in west and the Ural Mountains in east, holding Siberia and most of the geographical Russia beyond. Without proposing any hypothesis how this area has evolved such powerful in economy, it is only accepted and taken in account comparing transportation routes. As St. Petersburg and Moscow are the best known market places and important in economy and in politics, transportations reaching either one of the cities are examined.

### 3.2.1 Ocean shipping

Ocean traffic is very industrial country oriented. Because big industrial countries are either consignors or consignees the major part of ocean traffic is situated in North Atlantic, North Pacific, and through Panama and Suez Canal. Foreign trade is not in balance; more loads are shipped from raw material sources to the consumption centres than vice versa. (Tapaninen, 2015, 14)



*Figure 5. World's commercial sea routes and the most important passages (Cimsec, 2014)*

In the figure 5 above are illustrated the most active commercial sea routes. Like mentioned above most of the traffic flows are in the north of the big seas – Atlantic and Pacific – through two important canals – Suez and Panama. Shipping density is high between Europe and South America on a route, which runs from Brazil's coast to West Europe's coast. Cargo arriving in Europe on this route basically ends up at the large harbours like Rotterdam, Antwerp and Hamburg. From there the cargo is shipped onwards by other modes of transportation. By train, trucks or inner water system to the

central Europe markets. By ships to the further destinations, other continents, smaller harbours, islands or re-shipping if saved in costs compared to other modes.



*Figure 6. One of the Maersk Lines choices for transportations between Europe and South America (Maersk Line, 2015)*

For example Maersk Line as one of the leading maritime logistics operators is executing a tactic where they deliver huge amount of containers at the same time to only few ports. Thereby large vessels are more productive because they stay more in long-distance shipping and wins in time and costs only visiting main ports, the hubs. From the hubs goods continue by feeders, smaller ships, to the destination or to the origin port of container. This kind of system is called hub-and-spoke (HS) service network. Savings arise from the scales large vessels can carry, therefore additional handling and feeder services must be performed efficiently or the whole HS-system is not competitive or lucrative. (Maras et al., 2012).



### 3.2.1 The Baltic Sea routes

The most important transportation channel between the EU and Russia is the Baltic Sea route. Nearly 40% of Russia's foreign trade flows through the Baltic Sea harbours. The route begins from West-European harbours through "The Baltic Sea highway" to the Baltic countries', Finnish or Russian harbours aiming to the final destination, which usually is Russia. (Sundberg et al., 2010, 28).

Because the Baltic Sea route has a significant role in Russia related transportations, a more wide review will be presented later in chapter four. Also the importance of Baltic Sea ports is essential to present for the research as it is Finland's only realistic choice to be part of Russia headed transit traffic.

### 3.2.2 Air transport

Air freight is the fastest in long hauls and especially between continents. It is suitable for urgent transportations and for those proportionally small in size or weight. For example placing warehouses specialising to handle expensive spare parts, close to air traffic nodes has brought significant customer groups. Air cargo is considered as an expensive mode of transport because of its limited capacity in tonnes or cubes. Besides especially for cargo hauling used airplanes, some capacity of airplanes in passenger transportations is used for hauling cargo. (Karrus, 2001, 118).

The EU is the second important partner in trade with Latin America<sup>1</sup>, United States being number one. Trade between Latin-America and Europe represents roughly 3.2% of the world's air cargo in tonne-kilometres. In tonnes the trade was 777,000 in 2013 between the EU and Latin-America. Brazil's share as the largest economy in South America, was 51.6% from total 543,000 tonnes of air trade to the Europe, making 280,188 tonnes.

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<sup>1</sup> Here Latin America stands for South America, Central-America, including Mexico and the Caribbean basin.

Annual growth is forecast to be 4.7% from South America to Europe and 5.0% from Europe to South-America. (Crabtree et al., 2014, 21).

### 3.2.3 German-Poland route

German-Poland route is multimodal route on land that connects Trans European transport networks (TEN-T) to Russian European side transportation networks. The route passes through Berlin-Warsaw-Minsk-Moscow (German-Poland-Belarus-Russia), thereby connecting four capitals. Besides its important role in logistics, the route has important role in each country's politics and economy. In its east stop in Nizhniy Novgorod, the route forms natural connection to Russian wide Trans-Siberian railroad and Russia's most important inland water route Volga. This multimodal transportation node holds further connections to Ural, Siberia, Middle-Asia, and Caucasus all the way to the Far-East. (Lautso et al., 2005a, 53).

Geographically this is the shortest route between Europe's core and Russia, but not the fastest in all cases. Many upgrades to road system are made in all countries along the way, but development in industry and increasing private transportations are creating congestion especially in Poland's highway. Slow and complicated custom formalities take time. On the border city of Brest between Poland and Belarus waiting times can be 12-48 hours. Congestion on roads and waiting times on border are causing difficulties to execute exact delivery times. (Sundberg et al., 2010, 75).

Railroad infrastructure on the route is enhanced highly by national and international projects. Tracks have heavy rails and are electrified. Still the route has significant problem in rail gauge being different between Europe and Commonwealth of Independent States (CIS)-countries that means transshipment or changing the bogies. Situation has eased a little after automatic rail gauge transfer was built, but it did not solve all the problems. To be able to benefit from automation, special cargo wagons need to be used, otherwise a transshipment or bogie change remains necessary. Because of rail

gauge difference container traffic volumes on rail has been low. (Lautso et al., 2005a, 55; Posti et al., 2009, 89).

### 3.2.1 The Black Sea

The ports Russia has on the Black Sea play considerable part in their foreign trade. In 2007 ports on Black and Azov Sea handled 149 million tonnes of traffic, which made around 33% from all the cargo traffic in Russia's ports. Transportations formed so that 106 million tonnes (71%) was liquid bulk, around 39 million tonnes was dry bulk (26%) and around 4 million tonnes was container traffic. (Posti et al., 2009, 37).

Prominent growth on the areas ports is hindered by the location which is not favourable to foreign trade partners and problems caused by narrow water way in the Bosphorus. Also Russia's natural resources are not located so that ports could be used efficiently. (Lautso et al., 2005a, 50).

The Black Sea route is a natural way to access Moscow area and southern Russia markets but does not serve St. Petersburg region, where transportations are brought through the Baltic Sea route. Harbours congestion and poor relations with Ukraine are also affecting negatively to the Black Sea ports' operations. (Venäläinen, 2008, 26).

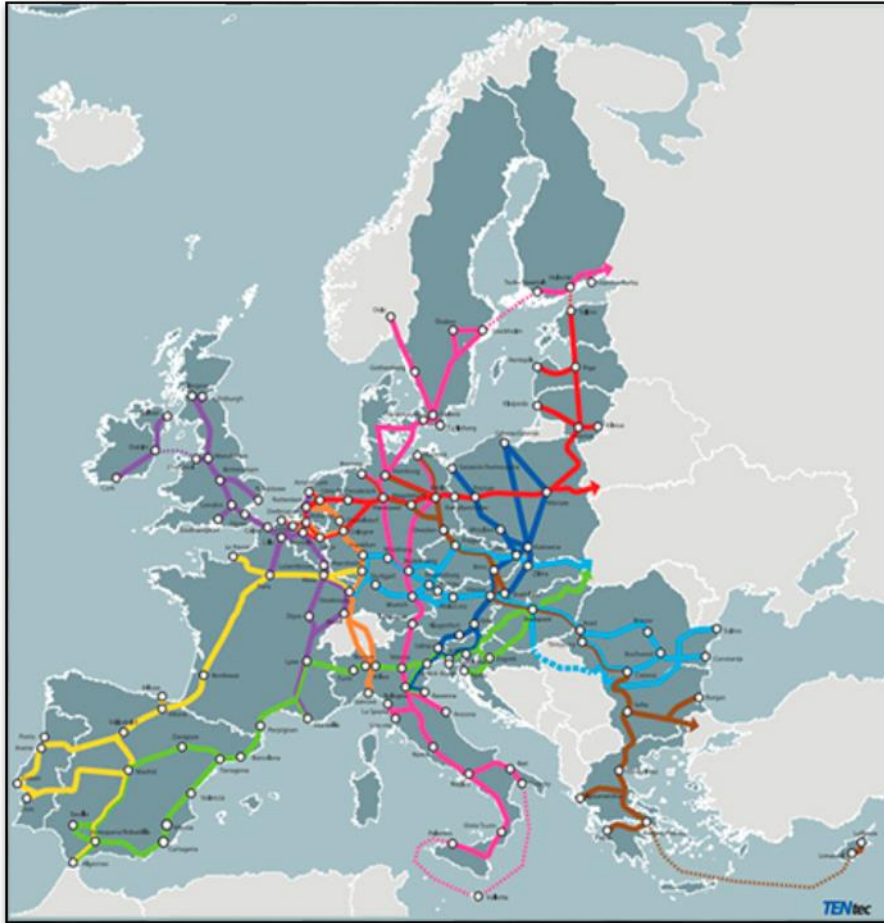
## 4 BALTIC ROUTE COUNTRIES

Baltic route is essential for countries between the sea and Russia. For example Finland needs the sea to carry out international trade, for as much as 80% of Finnish foreign trade are shipped (The Finnish Maritime Society, 2015). The importance of Baltic Sea in greater scale: from the EU's inner trade measured in tonnes/kilometres 40% takes place on water (Tapaninen, 2013, 20).

The Baltic Sea is the second largest brackish water basin after the Black Sea. It has low salinity, low tide and it is on tectonic plate which results the Baltic Sea being shallow. The average depth is 54 meters and the deepest point is 459 meters. For comparison Mediterranean average is 1,500 and the Oceans even 4,000 meters. Because of the Straits of Denmark the Baltic Sea is conveyable only for ships with draft maximum 15 metres when loaded. Practically it is possible for bigger ships also to entrance the Baltic Sea when empty or not fully loaded. (Tapaninen, 2013, 17).

Besides shallow water also ice in winter creates challenges for traffic. Finland is one of the rare countries where harbours freeze during normal winter, some of them for half a year (Kuljetusopas, 2015). Because of the ice caused problems Baltic Sea countries Finland, Russia, Estonia, Latvia, Lithuania, Sweden, Denmark, Norway, Poland and Germany established Baltic Icebreaking Management (BIM) organisation. It aims to create and develop safe, reliable and more efficient winter navigation among them. That means educating seafarers, offering prevailing ice situation and icebreakers locations and tasks and many other strategic and operational forms of acts to ensure well-functioning year-round maritime transport system. (Baltic Icebreaking Management, 2015).

Countries utilising the Baltic Sea route in their transit traffic belongs to the EU. This has brought different countries closer together when harmonising statutes. Lines in the biggest issues as environmental protection, finance, logistics and politics are same for everyone and changes the way competitiveness can be reached. The restriction of vessels' sulphur emissions on the Baltic Sea, or TEN-T where Europe is aimed to be connected with comprehensive logistics network, can be taken for logistical example.



*Figure 7. TEN-T, a logistical network connecting the whole Europe (Finnish Transport Agency, 2015)*

In December 2013 a regulation was given by the European parliament and council about guide lines to develop European wide transportation network. The guide lines are based on projects that bring common benefits and specify demand, priorities for improvements and tools to be used. The network is consisted from two phases. From a core network that will be finished by 2030 and from a comprehensive network that will be finished by 2050. (Finnish Transport Agency, 2015).

There are many ports in the Baltic Sea as there are numerous ships freighting many kind of cargo. Next is presented a review about countries and their ports comparing with Finland in transit traffic.

## 4.1 Finland

There are several reasons why Finland practises transit traffic. One is the geographical location with 1,200 kilometres border line with Russia. Another reason is the rail gauge which is practically the same as in Russia, 1,520 mm in Russia and 1,524 mm in Finland when major part of Europe it is 1,435 mm (Mäkelä et al., 2005, 66). Finland has a long history in rail road operations with Russia. Finnish import releases railway wagons in use and Finland has advanced port technology. Last decade has also released more and more containers from transit traffic for export industry. (Sundberg et al., 2010, 36).

In 2014 total transit traffic to Russia was 1.3 million tonnes decreasing 21% from previous year. Industry machines (17%), textiles, clothes, shoes (12%) and food products (12%) were the biggest groups measured in tonnes. The decrease in industry machines was 15% in textiles, clothes and shoes 19% and in food products more than one third compared to previous year. Only major group growing measured in tonnes was chemistry products by one percent. Measured in euros transit traffic was more than 14 billion, decreasing 22% from previous year. (Finnish Customs, 2015).

Due to Finland's location it is easy to see that transit traffic flows almost totally through harbours and airports. There are no statistics available from air transit, but it is safe to estimate it to be low in amount.

*Table 3. Transit transport in tonnes via Finnish ports 2011-2014 (Finnish Transport Agency, 2011-2014)*

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>HaminaKotka</b>	3,925,945	4,404,505	4,250,512	4,031,316
<b>Kokkola</b>	2,896,886	2,227,860	2,856,975	3,569,890
<b>Hanko</b>	279,823	312,230	261,167	274,214
<b>Helsinki</b>	288,519	111,541	142,760	108,054
<b>Turku</b>	73,137	36,008	19,723	17,909
<b>Loviisa</b>	1,004	4,194	8,182	8,420
<b>Pori</b>	-	-	-	1,441
<b>Uusikaupunki</b>	-	-	-	1,080
<b>Rahja</b>	-	-	-	162
<b>Rauma</b>	-	-	-	63
<b>Maarianhamina</b>	-	-	-	30
<b>Total, tonnes</b>	<b>7,465,314</b>	<b>7,096,338</b>	<b>7,539,319</b>	<b>8,012,579</b>

In the table 3 above is listed all the ports that practiced transit traffic during the last four years. From the eleven ports it is clearly visible that HaminaKotka and Kokkola are the leading ports in transit traffic handling greatest amounts of cargo. What is not visible in table is that Kokkola port practises mainly export transit, for example last year all transit transportations there were export.

On the map most active harbours are located on the southern coast, except Kokkola which is in western Finland. From the transit point of view locations are logical because Russia is closest from south and especially from HaminaKotka port. Below are presented transported goods via Finnish ports by commodity group.

*Table 4. Transit transport in tonnes via Finnish ports by commodity group (Finnish Transport Agency, 2011-2014)*

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Timber</b>	2,103	653	1,248	522
<b>Sawn wood</b>	92,641	111,938	184,405	173,717
<b>Wood pulp</b>	75,621	21,857	71,008	119,890
<b>Paper</b>	260,646	214,207	246,531	251,575
<b>Plywood and veneers</b>	18,983	12,682	19,385	24,786
<b>Ores and concentrates</b>	2,724,176	2,135,037	2,846,704	3,575,870
<b>Metals and metal manufacturers</b>	482,537	489,441	385,425	277,630
<b>Oil products</b>	52,441	13,546	13,305	46,405
<b>Coal and coke</b>	386	42	-	209
<b>Fertilizers</b>	37	1,091,793	1,074,302	999,561
<b>Chemicals</b>	1,681,138	1,397,963	1,245,900	1,206,251
<b>Crude minerals and cement</b>	300,729	160,046	125,425	177,757
<b>Cereals</b>	40	139	64	354
<b>General cargo</b>	1,709,350	1,392,590	1,262,549	1,109,567
<b>Other merchandise</b>	64,486	57,764	63,068	48,484
<b>Total, tonnes</b>	<b>7,465,314</b>	<b>7,099,698</b>	<b>7,539,319</b>	<b>8,012,578</b>

The total amount of annually transported goods transported annually during last four years has been 7-8 million tonnes. The most transited goods are ores and concentrates following by chemicals, general cargo and fertilizers. Historically important for Finland's economy is wood and wood processed products which are transited nearby in the amount of half a million kilos annually. Some oil products are transported but not crude oil which is not even listed.



*Table 5. Carriage of containers by sea between Finland and foreign countries (Finnish Transport Agency, 2011-2014)*

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>HaminaKotka</b>	612,174	615,871	621,261	588,032
<b>Kokkola</b>	18,034	13,957	12,198	12,910
<b>Hanko</b>	64,285	67,611	62,079	59,113
<b>Helsinki</b>	393,773	405,055	406,246	401,294
<b>Turku</b>	12,094	10,082	3,074	1,870
<b>Pori</b>	20,985	25,414	28,134	29,779
<b>Uusikaupunki</b>	-	-	-	318
<b>Rauma</b>	218,280	230,885	255,583	257,679
<b>Maarianhamina</b>	-	-	-	1
<b>Total, TEU</b>	1,339,625	1,368,875	1,388,575	1,350,996

Table 5 describes container traffic in the Finnish ports that have had transit traffic during last four years. The table does not include Loviisa or Rauma because they have not had container traffic at all. All transiting ports that have container traffic are located in south-west or southern Finland. From the three most active ports in container transportations only Rauma does not have significant role in transit traffic.

Next harbours holding the most essential parts in Finnish transit traffic are presented. Their volumes from the year 2014 are represented to clarify the relation in volumes between total and transit traffic. The port specialisation, capacity, important connections and other information like great numbers in passenger traffic are announced if existing.

#### 4.1.1 Port of HaminaKotka Ltd

The Port of HaminaKotka is located near the Russian border in south-east Finland in the vicinity of E18 highway and railway connections. Because of its transportation networks and location it is vital for transit traffic and the middle point of all transport modes. HaminaKotka is the greatest universal, export, container, and transit harbour in Finland

and has regular connections to all significant European ports and consequently to all over the world. (Port of HaminaKotka, 2015a).

HaminaKotka is a full-service logistics and industry central. The port area is 1,100 hectares and there are nearly 200 operating companies, the most efficient container terminal in the Baltic Sea and specialised harbour for liquid goods warehousing and handling. (Port of HaminaKotka, 2015a).

In 2014 port's total traffic was almost 13.5 million tonnes, decreasing 4.2% from 2013 when traffic was almost 14 million tonnes. Total export was slightly over 9 million tonnes and import 4.4 million tonnes. According to port's own statistics from all traffic almost 3.5 million tonnes were transit traffic including import and export. HaminaKotka handled close to 600,000 containers and vessel traffic was 2,634 visits. (Port of HaminaKotka, 2015b).

HaminaKotka's operating system is based on the certified environment and quality systems (ISO 14001 and ISO 9001). The system aims to improve all operations, quality and environmental activities to ensure better service for customers, and improve regional competitiveness. The environment system includes for example identifying and measuring environmental impacts, planning and implementation of improvements, preparing for accidents, monitoring environmental impacts and ensuring information flow. By managing all of this the port is able to reduce negative environmental effects, raise awareness for environmental issues and increase interaction between the parties operating in the harbour. (Port of HaminaKotka, 2015c).

#### 4.1.1 Port of Kokkola

Port of Kokkola is the third largest general harbour on the west coast of Finland. Cargo specialisation in Kokkola is in mining industry where they have been co-operating for more than 50 years, learning to understand and meet industry's needs. Port of Kokkola invests in long-term and thorough planning. Thereby investments in modern technology

have become one of the success factors alongside competitive prices and customer-oriented service. (Port of Kokkola, 2015a).

The year 2014 was a record breaking year for Kokkola harbour when the total cargo traffic exceeded first time ever 8 million tonnes reaching record level of 8.6 million tonnes. Port of Kokkola is clearly the third biggest harbour in total cargo in Finland and the second biggest in transit traffic competing in volumes only with HaminaKotka. The transit traffic share from total volume was around 40%. (Port of Kokkola, 2015b).

#### 4.1.2 Port of Helsinki

Port of Helsinki is the main port in Finland. It is specialized in unitized cargo services for Finnish companies practising foreign trade. Strengths of the harbour are dense liner traffic, specialisation to unitised cargo traffic and balanced import and export. The port boosts Finland's capital area economy and wealth as an active developer on region. Port of Helsinki represents about one third of the whole Finland's foreign trade value. Mainly traffic in the port is normal import and export for Finnish foreign trade. (Port of Helsinki, 2015a).

Imported products are mostly foodstuff, consumer durables, raw material and semi-finished products for the industry. The exported goods mostly consists of products of forest and metal industry, foodstuff, textiles and glass industry products. Container traffic is vivid. Port of Helsinki has the widest range of connections in Finland and frequent traffic flows to the Baltic Sea, the North Sea and the Atlantic harbours. Connections to the closest harbours like Stockholm and Tallinn departures many times in a day and to Rotterdam and German's harbours daily. (Port of Helsinki, 2015a).

Helsinki port's total cargo traffic in 2014 was 10.8 million tonnes. From that unitised import cargo was 4.8 million and export 5.2 million tonnes and bulk cargo, foreign and domestic altogether 0.8 million tonnes. Containers harbour handled 400,000. Passenger traffic in Helsinki is vivid. Nearby 11.5 million passengers in the year 2014 visited the

port. Vessel traffic was a little less than 8,000 from which cruise vessels 261. (Port of Helsinki, 2015b).

## 4.2 Estonia

Estonia has 3,800 kilometres of coast line which is approximately six times longer than the borderline on land. Estonia has borderline with Latvia and Russia. The port of Tallinn is the major port in Estonia and operates both cargo and passenger flow. Total cargo traffic was 28.3 million tonnes in 2014, the amount of inbound transit cargo was more than 7.2 million tonnes and outbound transit 13.6 million tonnes. 260,293 containers were handled and almost 10 million passengers. The port was visited by 6,865 vessels including 1,982 cargo vessels and 4,883 passenger vessels. (Port of Tallinn, 2015a).

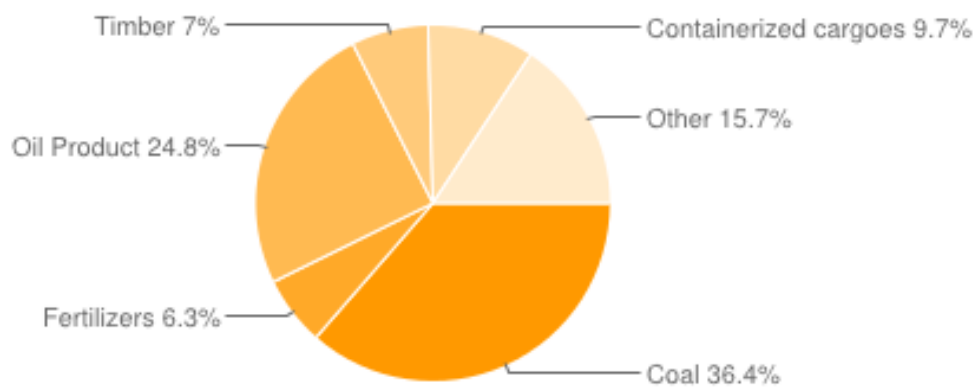
*Table 6. Cargo traffic in Port of Tallinn 2013-2014 (Port of Tallinn, 2015b)*

	<b>2014</b>	<b>2013</b>		<b>2014</b>	<b>2013</b>
<b>By type</b>					
<b>Containerised</b>	1,972.4	1,775.2	<b>Inbound</b>	10,845.4	7,966
<b>General cargo</b>	606.6	567.6	<b>Import</b>	3,623.1	3,540.1
<b>Dry bulk</b>	2787.8	3,239.6	<b>Transit</b>	7,222.3	4,425.8
<b>Liquid bulk</b>	18,938.2	18,968.6			
<b>Ro-Ro cargoes</b>	3,999.9	3,684	<b>Outbound</b>	17,401.2	20,266.6
<b>Non-marine</b>	16.6	12	<b>Export</b>	3,770.2	3,514.5
			<b>Transit</b>	13,630.9	16,752.1
<b>Total, th. tonnes</b>	28,321.5	28,247	<b>Domestic</b>	58.3	2.3
<b>Containers TEU</b>	260,293	253,627			

Another important port for Estonia is Sillamäe. It is the most eastern port in the EU, only 25 kilometres from the EU-Russian border. The port of Sillamäe handled 6.75 million tonnes of cargo in 2013. It can handle all kind of cargo from containerised to oil products and dry bulk. Port is quite new, it has been operating since 2005. (SILPORT, 2015).

### 4.3 Latvia

Freeport of Riga was the largest port in the Baltic States according to 2013 cargo turnover. For 2014 port improved and reached 15.8% growth ending up to 41 million tonnes of cargo handled. Dry bulk had the biggest share with 23.7 million tonnes, then liquid bulk with 10.2 million tonnes and general cargo with 7.1 million tonnes handled. Almost 390,000 containers were transhipped. Up to 77% of the turnover is transit traffic to or from the CIS countries. The port is connected to TEN-T and to the Baltic Sea highway. Latvia has borderline with Russia, Belarus, Lithuania and Estonia. Thereby Riga is an important hub for cargo traffic serving both the EU and the CIS countries. Figure below illustrates port's cargo shares. (Freeport of Riga Authority, 2015a).



*Figure 8. Structure of cargo handled in Freeport of Riga 2014 (Freeport of Riga, 2015b)*

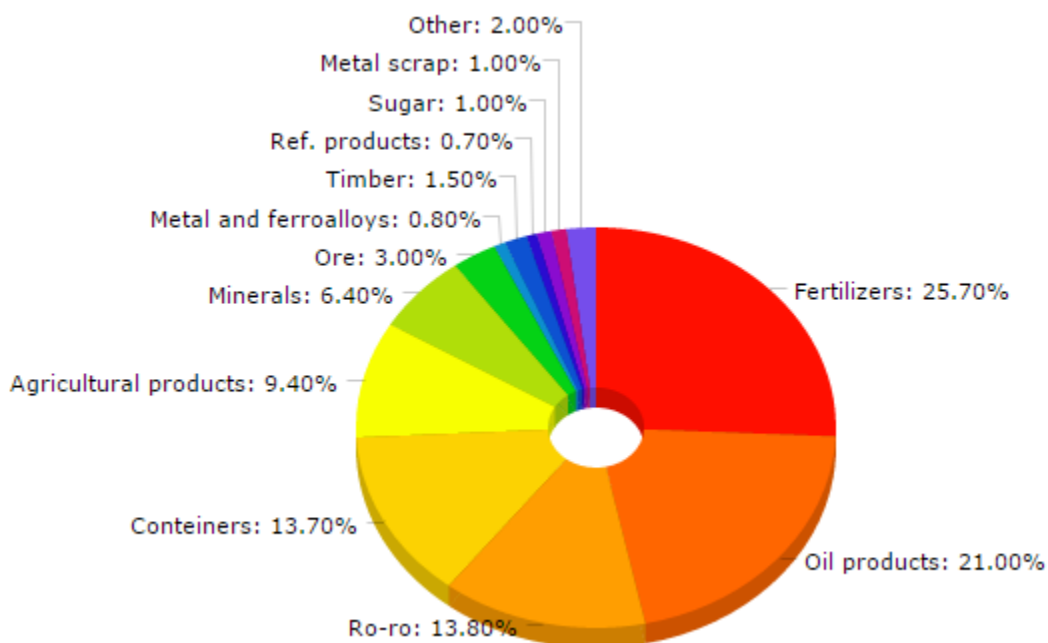
The Freeport of Ventspils is another significant port on the east coast of the Baltic Sea. It is multi-modal and can receive any freight. In year 2014 total cargo traffic there was 26.2 million tonnes. Of the total volume the share of liquid cargo was 15.9, bulk cargo 7.9 and general cargo 2.4 million tonnes. Like port of Riga, also Ventspils serves Russia and the CIS transit transportations. Sanctions between the EU and Russia plunged coal transit 21% last year, worth half a million euros in a month. The volumes at ironstone and oil

products also decreased but not as dramatically. (The Freeport of Ventspils, 2015a, 2015b).

Port of Liepaja is the third biggest harbour in Latvia, also transiting most of its cargo. In 2014 it handled 5.3 million tonnes of cargo. The share of bulk was 3.6 million tonnes, general cargo 1.3 million tonnes and liquid bulk 0.4 million tonnes. (Liepaja-sez, 2015).

#### 4.4 Lithuania

There are two important ports in Lithuania, Klaipeda and Butinge. Butinge oil terminal was erected in 1999 and is connected to ORLEN Lietuva refinery on shore. It is owned by refining company ORLEN Lietuva and oil is only the product it handles. Ships do cargo handling out in the sea on a buoy which is connected to the shore with pipes. Ships must sometimes withstand hard weathers and still be able to operate safely for the crew and ship itself and especially for the nature. The import capacity of the terminal is up to 12 million tonnes of crude oil in year. The capacity of tankers visiting the port can be 150,000 tonnes. (ORLEN Lietuva, 2011).



*Figure 7. Structure of handled cargo in port of Klaipeda 2013 (Port of Klaipeda, 2014)*

The Port of Klaipeda is the biggest and most important hub in Lithuania connecting eastern and western traders. The port's cargo handling capacity is 60 million tonnes annually. Klaipeda is multipurpose port and its total cargo traffic was 36.4 million tonnes in 2014. Total cargo volume has been more than 30 million tonnes per year since 2010. There are no statistics for 2014 container flow but 2011-2013 it has been nearby 400,000 annually. Lithuania has an active oil terminal Butinge, but still Klaipeda handled oil products 21% from its total cargo, another big group being fertilizers with 25.7% share in 2013. Detailed structure analysis is above in the figure 7. (Port of Klaipeda, 2015).

#### 4.1 Russia

The goods which are shipped straight through Russia's own harbours are not transit traffic, but it affect to the transit traffic of other routes. This is why Russia's own ports are treated as a competing choice for other ports on the Baltic route. Russia's harbours are located on the Barents Sea, Japan Sea, Black Sea and Baltic Sea. For this study, only the harbours situated on the Baltic Sea are worthwhile as they take advantage of Baltic Highway like the ports in Finland and the Baltic States. Russia's ports on the Baltic Sea are in the Gulf of Finland and in the isolated area of Kaliningrad. There are six harbours: St. Petersburg, Primorsk, Ust-Luga, Vyborg, Vysotsk and Kaliningrad. (Sundberg et al., 2010, 66).

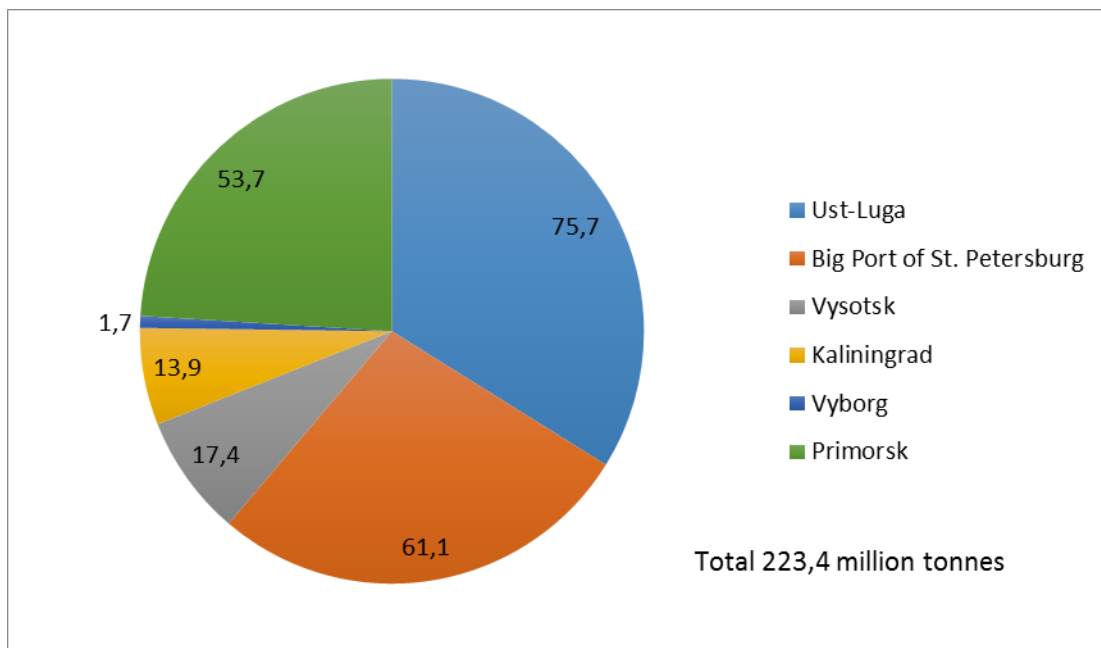


Figure 8. Russia's Baltic Sea ports cargo volumes (Portnews, 2015)

In 2014, Russia had traffic in all its ports worth 623.4 million tonnes from which the share of the Baltic Sea was nearby 35% (Portnews, 2015). Ust-Luga was the leading harbour of Russia in the Baltic Sea last year by cargo volume, the second was the Big port of Saint Petersburg and third Primorsk. The total cargo volume in the Baltic Sea ports of Russia was 223.5 million tonnes, the three most active handled 85% of this all.



#### 4.1.1 Sea Port of Saint Petersburg

Located deep in the Gulf of Finland, Saint Petersburg's port serves vessels with a maximum draft of 11 meters. The port is located straight next to the Saint Petersburg city which hinders developing wider infrastructure which again is part of the congestion problem the port has. It has all the logistics infrastructure and equipment needed to handle all kind of cargo anyway. During winters it has problems with ice which may surround it 2-3 months, in harder winters even more. (Sea Port of Saint Petersburg, 2015a; Lautso et al., 2005b, 94).

#### 4.1.2 Ust-Luga

The port of Ust-Luga is an ambitious project that is still under construction. By 2018 the port should be capable of handling 180 million tonnes of cargo annually. At the moment there are eleven active terminals. The port is designed to be able to take in all kind of cargo and use the most modern technology. The port of Ust-Luga will ease the congestion in the Saint-Petersburg port while the port is been built to its full capacity. (Port of Ust-Luga, 2015a; 2015b).

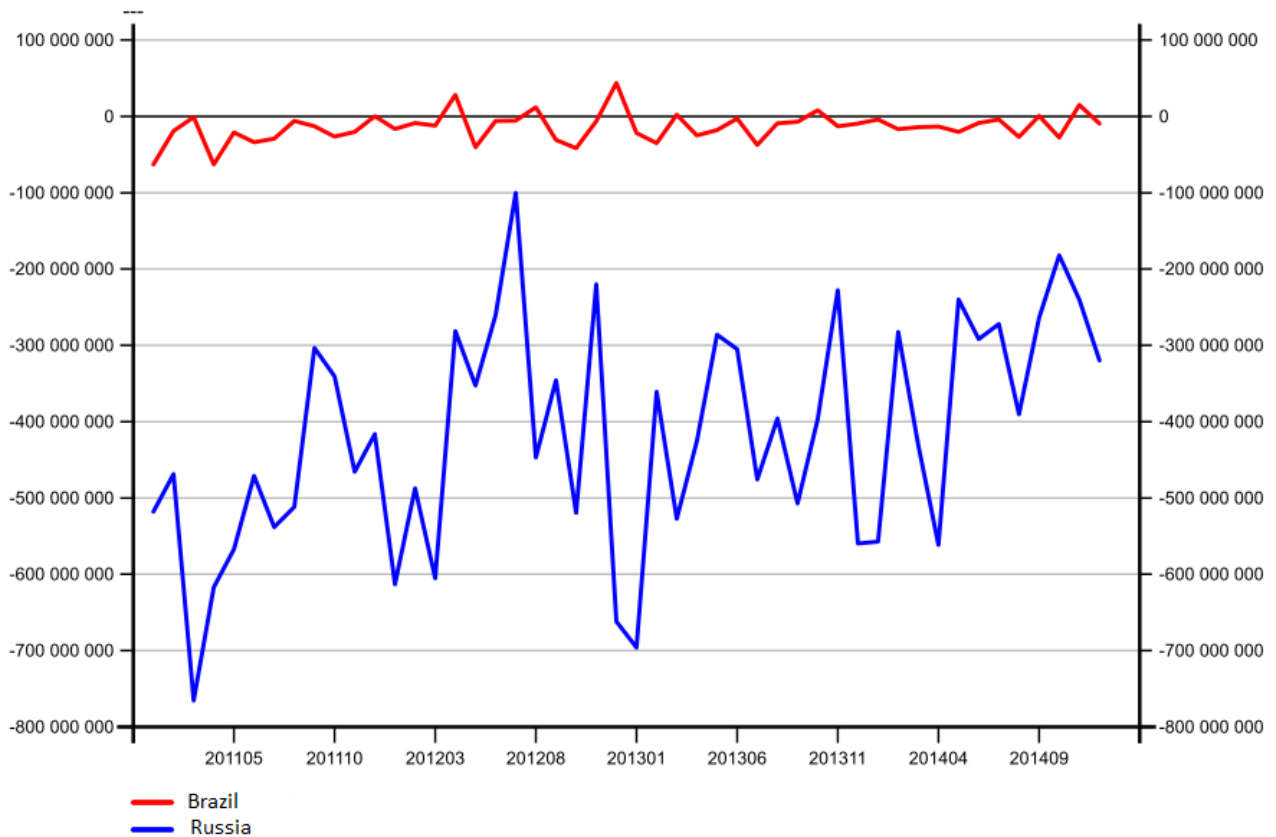
## 5 BRAZIL'S TRADE

To understand Brazil's importance in international trade and to find the size of goods flow and its content an overview for Brazil's trade is made. Earlier were transit ports discussed, their working capacities and type of goods handled. Here the aim is to review how Brazilian trade demands meet the current capacities and capability of the above mentioned ports.

Merchandise trade of the European Union in year 2013 was \$6,076,450 million of export and \$6,004,045 million of import. From this South and Central America accounted for 2%, worth of \$118,525 million in export and 1.8%, \$107,685 million in import. Brazil

alone had trade worth \$53,199 million in the EU's export and \$43,918 millions in import. In percentages numbers are 0.9 and 0.7. (World Trade Organisation, 2015, 32).

To compare, the EU's export trade with Russia in 2013 was \$159,096 million equaling 2.6%. The EU imported worth \$260,419 million which gave Russia 4.6% share. (World Trade Organisation, 2015, 32).



*Figure 9. Finland's monthly trade balance with Brazil and Russia 2011-2014 (ULJAS, Finnish Customs, 2015)*

There is a difference in the values between Brazil and Russia in Finland's trade balance. Trade with Brazil is minimal but slightly negative when with Russia it is much more vibrant and predominantly import.

Since the beginning of 2011 Russia was initial partner in Finland's import until the end of 2014 when it dropped to the second place. In export Russia's position has changed monthly from first to fifth. Brasilia's position in Finland's import and export rankings is close to twenty in both. (ULJAS, Finnish Customs, 2015).

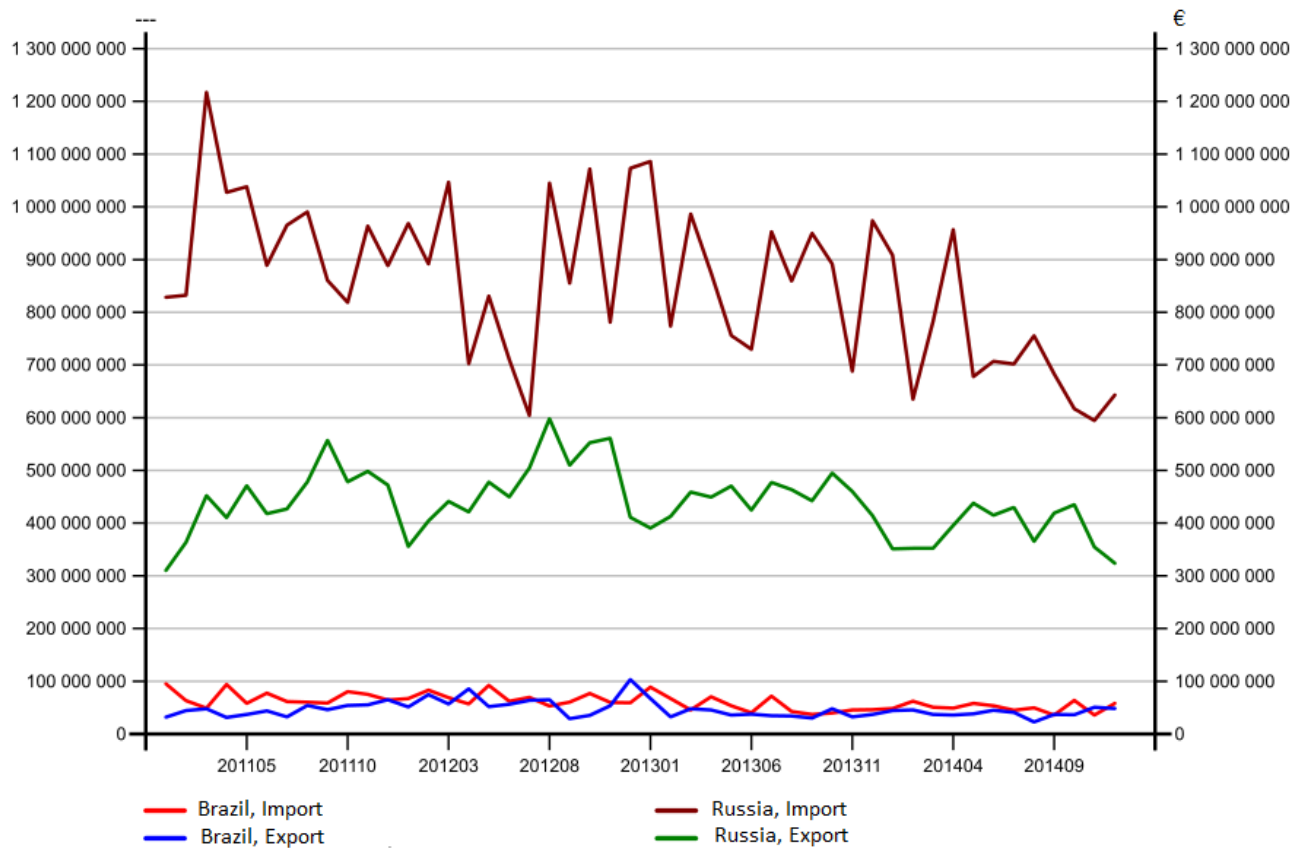


Figure 10. Value of Finland's import and export with Brazil and Russia 2011-2014 (ULJAS, Finnish Customs, 2015)

There is no doubt which one of these two countries is more important in trade volumes. Brazil-oriented monthly import and export levels have been less than €100 million since 2011, more precisely they are close to €50 million monthly.

Export to Russia has been intervening between €300 and €600 million. The last year ended close to €300 million. Import to Russia has been more fluctuating ascending to €1.2 billion, plunging to €0.6 billion, rocketing back to €1.1 billion and coming down to

€0.6 billion. After the last year spring's drop around the time when sanctions came on, the amount of import has not risen but stayed low the whole year and finished at €650 million.

In percentages the amounts are reflecting the commercial value. Brazil, with its €50 million import and export values, has nearby 1% share on both. Russia's export share has been from 12 to 7% being the lowest at the end of the last year. The import rate of Russia again has fluctuated like the monetary value. The peak was at the end of 2012 with 22% share and the lowest point was at the last year's autumn record of 12%. The year was ended with close to 14% share. (ULJAS, Finnish Customs, 2015).

*Table 10. Trade between Finland and Brazil by categories from Finnish view, 2011-2014 (ULJAS, Finnish Customs, 2015)*

	<b>Food stuff and living animals</b>				<b>Drinks and cigarettes</b>			
	Import		Export		Import		Export	
	million €	million kg	million €	million kg	million €	million kg	million €	million kg
2011	253.0	198.4	0.2	0.2	0.1	0.0	0.4	0.2
2012	231.9	155.8	0.2	0.1	0.1	0.0	0.1	0.0
2013	141.5	92.7	0.1	0.1	0.0	0.0	0.1	0.1
2014	141.7	84.1	0.0	0.0	0.1	0.0	0.2	0.1
	<b>Raw material(not including fuels)</b>				<b>Fuels and lubricants, electricity</b>			
	Import		Export		Import		Export	
	million €	million kg	million €	million kg	million €	million kg	million €	million kg
2011	503.4	780.0	11.8	21.4	0.0	0.0	0.0	0.1
2012	459.7	811.2	11.5	24.9	0.0	0.0	60.3	73.7
2013	386.7	680.7	14.2	34.7	0.0	0.0	0.0	0.0
2014	299.3	680.0	14.8	29.8	0.0	0.0	0.0	0.0
	<b>Animal- and vegetable oil, -fat</b>				<b>Chemicals</b>			
	Import		Export		Import		Export	
	million €	million kg	million €	million kg	million €	million kg	million €	million kg
2011	0.0	0.0	0.0	0.0	23.5	10.0	38.9	76.1

2012	0.0	0.0	0.0	0.0	16.6	3.3	53.7	78.3
2013	0.0	0.0	0.0	0.0	14.6	8.2	60.9	110.0
2014	0.0	0.0	0.0	0.0	16.1	2.2	38.0	86.6
	<b>Manufactured goods by substance</b>				<b>Machinery and transportation equipment</b>			
	Import		Export		Import		Export	
	million €	million kg	million €	million kg	million €	million kg	million €	million kg
2011	26.0	10.0	147.0	179.0	27.6	4.0	326.0	26.3
2012	94.2	23.0	137.6	166.1	24.7	2.2	437.1	30.5
2013	83.2	23.0	127.3	164.8	23.4	2.7	254.5	17.5
2014	117.9	30.5	106.0	136.7	35.3	3.0	296.0	22.1
	<b>Miscellaneous manufactured articles</b>				<b>Other</b>			
	Import		Export		Import		Export	
	million €	million kg	million €	million kg	million €	million kg	million €	million kg
2011	4.9	0.2	19.4	0.1	0.6	0.0	0.0	0.0
2012	3.8	0.3	26.4	0.2	0.9	0.0	0.0	0.0
2013	2.8	0.2	26.6	0.2	0.5	0.0	0.0	0.0
2014	2.5	0.1	31.0	0.2	0.9	0.0	0.0	0.0

Above is listed Finland-Brazil trade in ten categories during 2011-2014. Most material flow in import comes clearly from raw materials (not including fuels), then food stuff and third manufactured goods by substance. All these together made almost 800 million kilos traffic load last year which was 99.3% of all imported goods from Brazil to Finland last year. The monetary value of the most three imported categories was almost €560 million, 91% from total amount.

Finland's export to Brazil was nearby 275 million kilos of goods worth of €486 million last year. Most exported goods in volumes were manufactured goods by substance, chemicals, raw material (not including fuels) and machinery and transportation equipment which transformed almost the whole export in material flow. The monetary value of the most significant exported goods was little more than €450 million being 93% from total.

From import point of view the volumes of all category groups have lowered or stayed on the same levels during the last four years except manufactured goods by substance which tripled its volumes to 30 million kilos last year. The trend is the same in monetary value, manufactured goods by substance was last year more than four times valuable than in 2011.

There is more fluctuation within four years in export volumes but the trend is the same. Only chemicals and raw material (not including fuels) sectors finished at higher levels last year than in 2011. The levels of other groups came down four years or maintained on same levels. As for export value the trend is not as obvious. The two most valuable of sectors manufactured goods by substance and machinery and transportation equipment came down in four years. From two ascending sectors in volumes, chemicals and raw material (not including fuels), only raw materials (not including fuels) inserted its value when chemicals despite of its grown volumes made a little fall in value. Miscellaneous manufactured articles stayed the same in terms of volumes but rose in value to more than €30 million.

*Table 11. Top ten most imported goods from Brazil to Finland in December 2014  
(ULJAS, Finnish Customs, 2015)*

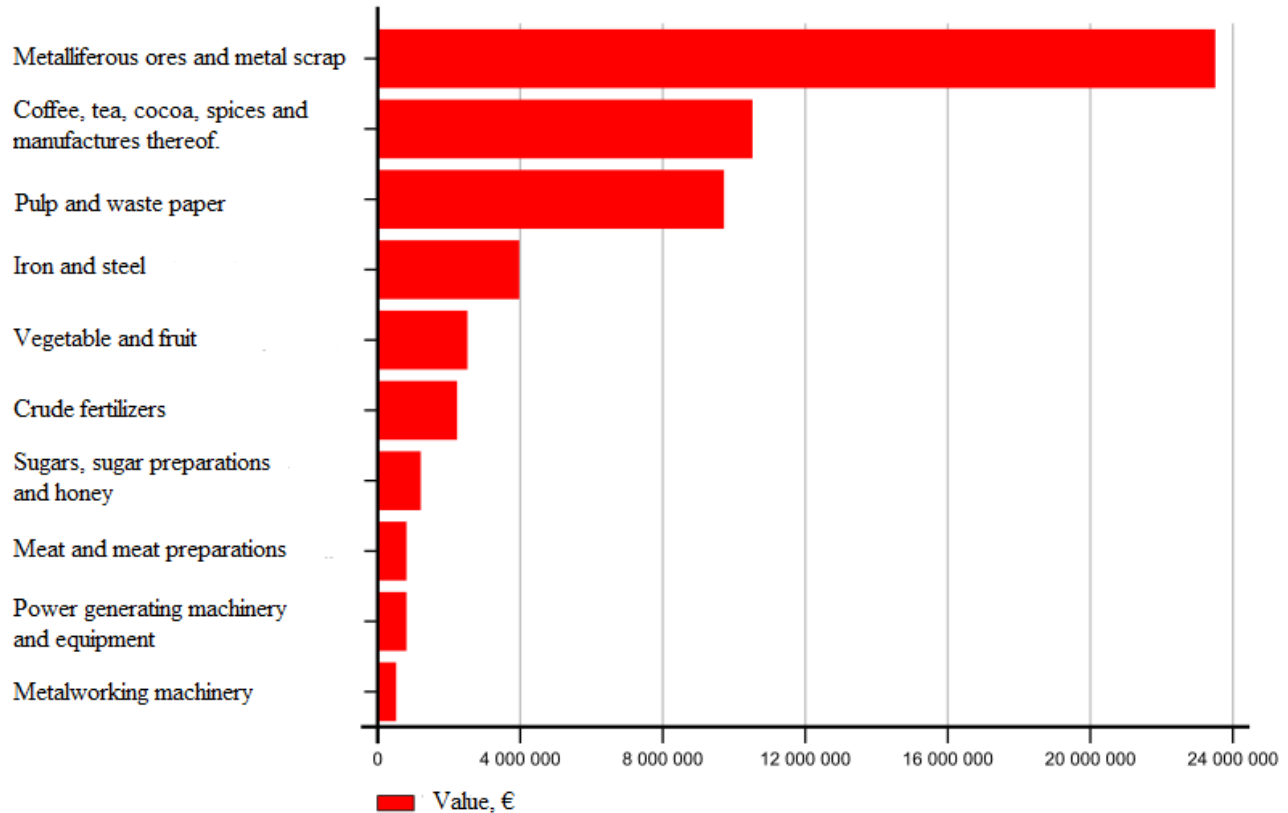


Table above reveals more specifically what Finland imports from Brazil. As much as it is possible to say from this table most of the goods are bulk that does not require ultimate specification. There are two subjects compared to ordinary bulk that can be thought to need specification and improved monitoring in transportations. These two are food stuff like vegetables and fruit and meat and meat preparations, and machinery and manufactured goods like power generating machinery and equipment and metalworking machinery. It is very much plausible that temperature control for food stuff is needed as well as containers for safe loading for machinery.

Even though the above reviewed table presents only one month it is still showing the trend that was revealed earlier. Most imported sectors from the past years have been raw materials (not including fuels), food stuff, manufactured goods by substance and machinery.

## 6 RESULTS AND CONCLUSIONS

Firstly it must be pointed out that the study could not be realised as planned. A survey for the biggest transit traffic ports in Finland, Estonia, Latvia and Lithuania was made in order to find out their views about their position in transit traffic competition. The survey contained questions about transit traffic and value adding services in logistics in open text free answers form and in multi-choice patterns. Not even a single answer was received, so the conclusions presented are based on a few meetings and lectures that were organised during the project. The reasons why answers were never received are not known. Therefore there is no valid research information and theory cannot be used as efficiently as it was supposed to.

Major part of the research was to examine the capacity of ports, what kind of goods flow through them and note the importance of transit traffic in the amount of total traffic. What was found out was that HaminaKotka is a small player against in the Baltic States main transit harbours. It cannot compete in volumes with the important Baltic States ports when they seem to have more than double the annual volumes in general. HaminaKotka's transit traffic volumes are also much lower.

A considerable part of the Baltic States volumes comes from liquid bulk, oil or oil products. This may be explained by the history. Before the Soviet Union collapsed it had oil lines to the Baltic Sea through these countries. The lines are still in use even though Russia aims to move its oil transportations under its own management. This will decrease the total cargo volumes in Baltic State ports in the future. Russia's own political and financial situation is the key factor. When Russia is able and willing to start



transformation it will likely to be fast. For example the construction of Ust-Luga has been started already and it began furiously but the pace of process has been slowing lately.

Value adding services in logistics could not be examined as planned but at least one service mentioned in the introduction was encountered. Mervi Nurminen(2015) stated that there is no cold warehouse to storage food stuff at the port of HaminaKotka, neither there is a veterinary service. She described a case where frozen fish from Chile was about to be transported to Russia through Finland. HaminaKotka was the first choice for transit but because of the lack of two previously said services, Port of Helsinki managed to have the deal. Everything was ready to start supplying frozen fish from Chile to Russia through Finland but at the last moments Russian officers denied everything invoking to the transportations insufficient documents and weak product control. The fish never left Chile.

In the light of this case there would be a demand for cold warehouse in HaminaKotka, not only for Brazilian products but also for the products of other countries. More than 80 million kilos of food stuff was imported 2014. That is only 40% what was imported in 2011. There is no information to show why this amount has decreased so radically. One reason could be the same as with the oil in the Baltic States that Russia wants to move material flows straight to its ports and decrease the dependence of transit traffic through third countries. Another reason could be simply that Finnish people have stopped the consumption of Brazilian food stuff which is likely not true at this scale.

What is remarkably different between Finland and Baltic States is that Finland has much more ports than the Baltic States. The reason for this becomes only by watching the geography of the countries, Finland has a longer coastal line. What it makes for the competition in Finland is that it spreads services, volumes, capacity and possibly in many cases also overlaps same services. Finland is not only competing with other countries for new orders but also with itself. The Baltic States can centralise their import and export logistics in a smaller area where all the services are available. A simplified pattern could

be that the more services are accessible from one place the more new business it lures, or as a Finnish proverb freely translated says: “Money follows money.”

The survey made for the project supports the claim that Finland’s geography is not a competitive factor as is usually alleged. From the Baltic States ports it is possible to reach more people in the same or less time, especially if new business is targeting Moscow area which is twice the size of Saint Petersburg, let alone CIS countries. The distance differences are not eminent to Saint Petersburg or to Moscow from HaminaKotka or the Baltic States so the factor of time that could make the difference is highly doubted. The most time saving new business can be gained in port activities like loading and unloading, not in transportations. It can be presumed that even the difference of a day or two in reaching the destination market has no influence to decision to open or not to open a new business. That is why time can be delimited from the list of competitive factors.

There is one interesting matter that emerged occasionally during the study process. This matter was corruption. It is a susceptible thing and a few comments about its existence in the Baltic States and Russian ports appeared. It is easy to claim that it exists but hard to prove. These claims were made by a few persons in different organisations. According to them corruption occurs in a shape of unexpected costs sometimes coming from the workers of docklands and sometimes even from the customs. As was said before, these claims are hard to prove right and no matter how much experienced in corruption these persons are, in these conclusions these claims are passed over as a speak of old times. As long as there is no public evidence of this kind of activity it is useless to think it happens. This brings us to a point where can be assumed that correcting wrong and old believes could improve the port. It is harmful to imagine that other harbours far greater could have had their volumes through corruption. Fallacy in any matter does not help to improve anything.

Membership in the European Union brings all the competing ports closer together. Within the EU different countries become more homogeneous in terms of statutes and radically different national approaches disappear by the time. This does not decrease the

competition but changes where it happens when for example major guide lines in environment protection and politics (sanctions) are imposed by a common legislator. The EU can also support growth as it is now doing for example in Latvia where new businesses can have tax reliefs in some ports and their hinterlands.

A project that improves HaminaKotka's appeal for new business is the improvement of TEN-T, the logistical network in Europe. In the vicinity of HaminaKotka is the city of Kouvola which is part of HaminaKotka's logistics network offering train services and connections to Russia. Kouvola is the only train station terminal from Finland belonging to the project and has been granted €50 million to develop the area. This brings surplus for the HaminaKotka as it is also part of TEN-T project.

Being proactive was one of the criteria at the beginning of this study. The acquisition of a position where it could be possible to be ahead of competitors would really be a worth investing. Sanctions and counter sanctions between the EU, Russia and a few other countries have opened the world's eyes to look for more than one direction in making business. This study is one example of that, but this is only reacting not being proactive. Now, when sanctions are on, and businesses have already been interrupted, it is easy to say that Russia has had too much influence to Finland's trade. In this light it is safe to be member of the European Union. If not, there could be almost thirty more countries Finland has trade in the Europe and could have the same situation as with the Russia at the moment. Assemblage offers safety and stability but business competitiveness has to be made alone.

A matter that irritated during the study process was to investigate poor webpages. The quality of many pages were poor in terms of language, content and visual layout. However, it has to be stated that Finnish ports are ahead of most of its competitors. It is exhausting to find information about Russian ports and if information is found it is usually only in Russian. That can highly hinder possible customers planning straight operations to Russia. The Baltic States have their web pages mainly in three languages

like Finnish ports. Languages offered are usually the native language, English, Russian and in Finland also Swedish.

For two obvious reasons, it is definitely good that Finnish service providers offer services in Russian. The first is for export use because for Russians it is easier to make trade in Russian than in Finnish or even in English. The second reason is for import use. Showing knowledge of Russian is important if a new customer wants their goods to be delivered to Russia. Mainly the business language in the world is English. Knowledge of Russian in this case does not bring clear advantage, but equalise situation as the Baltic State generally have Russian as a common language, a relic from the old times.

Proposal for being more proactive is to study the possible market areas, with or without actual plans to invade new areas or even a possibility to do so. While conducting this study it was quickly determined that there are a vast number of studies about Russia and Asia. Market analysis, logistics analysis, and situations now and then, practically everything is researched. What were harder to find out were studies about South America, Africa or North America, not to mention Australia. Subjects for further studies about these mentioned themes can be found.

Africa holds enormous possibility in all sectors of business, it is only a matter of time when substantial African enterprises start to challenge the western companies. Nowadays it is a playground for enormous global companies and for example the Chinese have invested greatly into it. Recently it has been possible also to read about Finnish companies starting business in Africa and being satisfied.

South America could have a more important role in economy and some day it may be possible. Important first steps have been taken when an honorary consul for Brazil and South-East Finland relations was appointed in February 2015. The consul is the CEO of Centos Central Logistics Oy, Tommi Laaksonen. His task is to foster regional and Brazil relationship in his field of expertise. (Kierikka, 2015).

The European Union is negotiating with the United States (US) about “The Transatlantic Trade Investment Partnership” (TTIP). The deal and the negotiations have been widely criticised for being too secretive and threatening the European companies and governments. However, if the deal is agreed in the future, Finland should be ready. All the studies about everything needed to start business should have been done and the first deliveries should be sent and received since the first day of an agreement. It would be unwise to wait and see how others launch their business and lose the place of a pioneer in the new markets.

In sum, this study failed to find arguments to boost transit traffic in Kymenlaakso region and value added services in logistics. As unfortunate it is, the conclusion is that there are no remarkable reasons that would make HaminaKotka significantly more appealing than the competing ports in the Baltic States. However, what is positive is that HaminaKotka and Kouvola are part of TENT-T, and the area is granted with the EU development money worth €50 million. Cold facilities could have brought HaminaKotka new business, but as they do not yet exist at least a possibility to quickly offer that kind of a service should be kept open. Multiple language skills should be taken for granted to have any kind of business in this area because Finnish is a minor language in the world.

If arguments were not found, at least ideas to create growth and attractiveness were found. These ideas are based on the factors above discussed. There are three main points:

1. Finland has multiple ports that compete with other countries’ ports and also with each other. To stop this and make business smarter, it could be possible to establish a parent organisation among all Finnish ports that could take care of customers looking for services. It could aggressively compete with power of all Finnish ports against other countries, so that if one Finnish port wins a deal whole Finland would benefit. It could also centralise marketing, procurement, research and development.
2. Market analysis in every corner of Earth should have been done, continuously. It would keep potential markets more open and would enable faster reaction and possibly

attract existing businesses to make an opening towards new market areas. The fastest growth can be achieved where the market is not already existing and crowded. If universities and companies would put effort into research less known markets as much as they examine Russian and Asian markets, Finland would be able to terminate its dependency on singular markets faster.

3. Manners that existed in the old times do not mean that they exist nowadays. Here the reference is to the corruption talks that rose up in the meetings during the study. Surprisingly much corruption was mentioned but not proved. The fear here is that there are more this kind of beliefs, which hinders seeing one's situation. The own situation should be tried to see honestly, instead of trying to claim others' business improve due to illegal manners, if the current situation is that one's own approach is old fashioned or not competitive.

## 7 CRITICAL ASSESSMENT

As noted in conclusions empirical study did not succeed as planned, when the survey was not answered by any port. With the lack of answers to the survey also the application of theory became confined. There might be various reasons for the ports not to answer. Proper reasons could be numeral amount of all kind of surveys that the companies nowadays receive and lack of time or interest. In order to improve responsiveness more connection and communication towards the ports should have had. Time during the research was used otherwise properly, but the survey should have been done earlier. That still did not prevent to analyse the Kymenlaakso region's situation. The conclusions presented are not quite as accurate as was desired.

The main finding in the study was that Kymenlaakso does not possess any real competitive factor that its competitors would not have. The only matter that was considered somewhat important in this respect was the TEN-T project and that the port of

HaminaKotka and Kouvola train terminal are part of it. Relating to this, Kouvola has been granted with €50 million to develop the area's logistics. These main findings are discussed in more details in Chapter 6.

In the introduction the question of cold warehouse in the area was brought up. Brazil is a remarkable beef producer in the world and the statistics clarified that Finland imported food stuff from Brazil with more than €140 million last year. This thesis study was not able to sufficiently indicate the routes that are used to transport products and where they end up. Because of this, the question about the importance of the cold warehouse remains partly unanswered. The fact it does not exist in the HaminaKotka port was nevertheless clarified.

The study did not produce a model that could be used to react to logistics operations. Nevertheless the study only partially answered the question how to achieve a more proactive role in the world's business. These results are presented in three steps. Firstly the collaboration among Finnish port should be increased so that ports would not compete against each other. That could concentrate volumes, capacity and know-how and also could lead to eliminating overlapping services.

Secondly, it was quickly noticed that examinations from other areas than Russia and Asia were hard to discover. In order to be more proactive Finland should more bravely examine possible and impossible markets. When the market comes topical no time would be wasted to hesitate, investigate and eventually lose the possibility to be the first on the market.

The third result was the awakening to own reality. Too many times it was stated that competitors are corrupted and therefore working legally could serve as a competitive factor for Finland's benefit. If this cannot be proven, it should be forgotten and one should start to develop own activities. The reality is that the port of HaminaKotka is a small player against the Baltic States and Russia in many sectors of logistics. As long as this reality cannot be seen, no development can happen.

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