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Jaakko Kilpeläinen, Katrina Lintukangas

**FINLAND'S POSITION IN RUSSIAN TRANSIT TRAFFIC –
IS CROSS-BORDER ZONE A VIABLE ALTERNATIVE?**

Lappeenranta University of Technology
Northern Dimension Research Centre
P.O.Box 20, FIN-53851 Lappeenranta, Finland
Telephone: +358-5-621 11
Telefax: +358-5-621 2644
URL: www.lut.fi/nordi

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Foreword

The Northern Dimension Research Centre (NORDI) is a research institute run by Lappeenranta University of Technology (LUT). NORDI was established in the spring of 2003 to coordinate the research related to Russia.

NORDI's mission is to conduct research in Russia and issues related to Russia's relations with the EU with the aim of providing up-to-date information on different fields of technology and economics. NORDI's core research areas are business and economy, energy and environment, the forest cluster, the ICT sector and the logistics sector. All the aforementioned topics are researched within the geographical area of the EU's Northern Dimension. This study is a part of research co-operation between NORDI and VALORE (Value Added Logistic Research) research group.

This report is the second publication of the two separate studies dealing with logistics of the border region between Finland and transitional Russia. It clarifies the development of the Finnish competitive environment in transit traffic. It attempts also to find solutions to the tightening competition by approaching the idea of a cross border zone in South East Finland as a possible next competitive edge in transit traffic.

I wish to express my gratitude to the EU's Interreg IIIA program and to the cities of Imatra, Joutseno and Lappeenranta, the Finnish Freight Forwarders' Association and Finnish Railways Ltd for the financial support they have given to NORDI enabling this logistic research work. I also give my warm thanks to professor Tauno Tiusanen and to professor Anita Lukka for the encouragement and help they have given to me in my work. My gratitude goes also to research assistant Katrina Lintukangas, who has co-authored this study.

Hamina, March 2005

Jaakko Kilpeläinen
Researcher
Northern Dimension Research Centre
Lappeenranta University of Technology

1. Introduction

Essential, political and socioeconomic changes have taken place in the Baltic Sea region since the late 1980s. The anti-communist revolution of Eastern Europe in 1989 started in Poland. After the dismantling of the Soviet Union in 1991, four new independent states came into being on the shores of the Baltic Sea: Russia, Estonia, Latvia and Lithuania. In the mid 1990s, Finland and Sweden – together with Austria – joined the European Union. In May 1st 2004, eight transitional economies joined the EU, four of which are on the Baltic Sea: Poland, Estonia, Latvia and Lithuania. Germany and Denmark are “old” EU-countries with harbours on the Baltic Sea.

National economies in the region under review have hardly any common denominators. The Russian Federation is the richest country in the world as far as natural resources are concerned. The population of Russia is close to 150 million. On the other side of the scale is Estonia with a population of less than 1,5 million. The overall population of the Baltic states is less than 8 million. Finland is one of the affluent West European countries with competitive industries, none of which can be called labour intensive. The rather small national economy of Finland with about 5 million inhabitants is a typical post-industrial service society with high nominal wages.

In the Baltic Sea region there is one special feature linked with the post-soviet geography: when all 15 former Soviet republics became independent states in 1991, the Kaliningrad region remained a part of Russia. This province is a former part of Germany, Eastern Prussia, which was annexed by the Soviet Union after World War II. Kaliningrad oblast is an exclave separated from Russia proper via Lithuania and Belarus. Presently, this exclave is geographically within the EU, but administratively a part of Russia.

This short research report is not attempting to cover all economic details in the Baltic Sea region. The focal point is the development of the Russian external economy and transportation routes connected with it: this development affects many neighbours of Russia, including Finland.

In the early period of Russian transition, economic activity decreased dramatically. Severe mistakes were made in the economic policy. This negative trend reached a culmination point in 1998, when a deep currency crisis took place in Russia (for details, see Tiusanen: Development of the Russian Rouble – The Crisis of 1998 and Its Aftermath).

The radical depreciation of the Russian rouble in the late 1990s affected negatively Russian transit traffic via Finland (for details, see Kilpeläinen: The Development of Transit Traffic via Finland in

1997-2003). At the same time, some interesting structural changes in this sphere of business took place.

As the above mentioned NORDI-publications describe, a very strong recovery took place in the Russian economy at the turn of the century. The most important background factor in this turnaround is the world market development of raw material prices. In the first year of the 21st century, exporting of oil and other minerals was very profitable. This trend has been extremely beneficial for the resource-rich Russia.

The post-crisis boom in the Russian economy has very concrete repercussions on exports and imports of the country. Export volume of commodities, especially oil, chemicals and metals, has expanded strongly. Strongly increasing purchasing power amid the export boom has positively affected the demand of high quality importables (electronics and consumer durables).

It is not surprising that these factors have put the Russian transportation system under heavy pressure. The country has rapidly created new port capacities at the bottom of the Gulf of Finland.

It is obvious that Russia's limited access to the Baltic Sea shores does not offer an optimal solution to the transportation problems from a geographical point of view. However, Russia seems to be determined to maximize self-sufficiency in traffic linked with its own foreign trade in the long run.

From a Finnish point of view the situation is interesting. At the turn of the century, Finland had lost market shares in the transit traffic. This is not surprising, because the competing routes (ports in Russia and in the Baltic states) have cost advantages in comparison to Finland. Nominal gross wages calculated at official exchange rates are several times higher in Finland than in Russia and the Baltic states. Bulk product traffic is price-sensitive.

The need of value added logistical (VAL) services has grown in Finland after the Rouble crisis of 1998. The need to adjust the export regime to specific Russian import rules grew. These services have a big influence on employment in South East Finland. The risk connected to this part of transit traffic is linked to the large amount of investment made into VAL warehouses and port infrastructures. The services connected to Transsiberian railway traffic are under the risk of change. The continuation of this traffic totally depends on the decisions of the new shareholding company, Russian Railways Ltd. The turnover of cargo coming in via the TSR is mainly connected to the VAL services.

The high price of oil helps the Russian economy and the increasing flow of import goods keeps Russian ports busy. It is clear that the logistical structures of Russia are interesting investment objects for capital rich Russian companies and multi-national logistics enterprises.

In this context, Finland's position in price competition is not good. However, Finland has a good quality profile as a safe storage and commercial transition point. The future of transit traffic via Finland highly depends on these matters. The global operators are willing to pay a good and reliable service for high price products entering the Russian market.

This is the second publication of the two separate studies of logistics on the border region between Finland and transitional Russia. The first part "Development of Transit Traffic via Finland in 1997 – 2003 by Jaakko Kilpeläinen clarified the changes in the volume and content of the transit traffic to Russia. This second study analyses the competing routes via Baltic states. It tries to find solutions to the tightening competition by approaching the idea of a cross border zone of South East Finland as a possible next competitive edge.

2. Geopolitical changes in the 1990s and early 21st century

In the post-war reconstruction after World War II, the Soviet Union needed endless amount of investment goods, and started a bilateral trading system with Finland. The system was based on clearing payments and five-year protocols. Delivery schemes were signed yearly between the trading partners. The Soviet Union, which applied a strict state monopoly of foreign trade, demanded mainly machines and vessels from Finland, which received mainly primary goods from her eastern trading partner.

Unlike Finland, Baltic countries could not keep their independence in the turmoil of World War II and were annexed by the Soviet Union in 1940. Their economic structure changed dramatically after the Soviet invasion. Agriculture was collectivised, industry nationalised and economic activity brought under the control of the Soviet state. The expansion of heavy industry contributed to substantial immigration of Russians and other Soviet citizens to Baltic countries. E.g. in the year 1989, 62 % of the population of Estonia were ethnic Estonians and the rest were mostly Russian-speaking. (Tiusanen, 2004)

In the early 1990s the communist Soviet Union collapsed. At the same time Finland suffered an economic crisis, which was partially caused by the structural changes in the foreign trade. It was hard to find new western demand for all those products, for example for ships, which were delivered previously to the Soviet market. Export to the west had already declined as a result of the loss of price competitiveness. Finland was forced to devalue its currency. The Finnish domestic market suffered a deep banking crisis and the unemployment rate reached 15 %. Considerable restructuring of the Finnish export became necessary.

During the Soviet-era the whole society was run by the state. In addition, concrete economic aid such as cheap energy and low transport tariffs were necessary to unite the enormous land area of the Soviet Union (Helanterä and Tynkkynen, 2002). The transition from planned to market economy caused price increases and changed relative values. It was cheaper and faster to import foodstuffs e.g. from Finland to St. Petersburg than transport them the long way from the coast of the Black Sea. Different regions of Russia and enterprises started to create new logistically cost-effective transport networks instead of having Moscow as a central point.

The collapse of Soviet Union and the restructuring of the import to Russia in the beginning of the 1990s was a significant event for the Finnish logistics industry. The sudden increase in the traffic from Finland to Russia created new business opportunities for the Finnish transport companies.

Especially the trucking companies quickly entered into border crossing traffic. The Russian companies did neither have sufficient know-how nor the internationally accepted equipment to do that.

In 1998, the monetary authorities in Moscow assumed that price inflation was decelerating allowing a new system of semi-fixed ER. A managed floating system was established for the Rouble ER. This system with +/- 15 % borderlines around the central rate of RUB 6,2 = \$ 1, collapsed in August 1998. As a result of the currency crisis, RUB depreciated strongly causing a strong inflationary wave (Tiusanen, 2003).

Import of consumer goods into Russia decreased in the immediate aftermath of the crisis. The main transit routes as well as the Russian ports faced strongly decreasing cargo-flows after more than seven years of continuous growth. The logistics service companies in Finland, especially the ones depending on the transit traffic of consumer goods, experienced a crisis. The outcome of the situation in Finland was, that many trucking and forwarding companies stopped their activities through voluntary actions or went bankrupt. This led to a new competition situation in logistics routing to Russia.

However, the devaluation crisis became a blessing for the Russian economy. Many industrial sectors took advantage of the import-substitution opportunities. At the turn of the century, oil prices experienced a strong boost, which generated increasing money flow to Russia. In 1999, investment in real terms increased - the devaluation caused a strong investment boom. The demand of consumer goods (cars, consumer electronics, house hold appliances, etc.) was revived again. Transit traffic and export to Russia begun to develop from the new basis and grew back to the level of year 1997 on year 2001. The most important background factor in this context was the world market price hike of oil.

After the Rouble collapse, Russian trucking companies, in Russian ownership or in western ownership took over the control of the main part of the border crossing truck traffic. Finnish trucking companies could not compete against cheaper Russian transport prices. However, Finnish ports and port operators benefited from the change in the transport market. As a new feature in the container traffic was the growth of value added logistics (VAL) services that affected positively to the employment in Finland.

After the collapse of the Soviet Union, the Baltic countries, Estonia, Latvia and Lithuania, gained independence, and thus, were separated from Russia. After regaining independence the Baltic states adopted a comprehensive reform package involving price and trade liberalisation,

privatisation, a broad range of stabilisation of economics and creation of new currencies. The opening attracted western companies to invest in the Baltic countries, e.g. in manufacturing because of cheaper labour.

Foreign direct investment (FDI) contributed to the transition in the Baltic states. Inward FDI was strong already in the early transition period (1992-1996) in Estonia and Latvia, where almost one quarter of gross fixed capital formation was FDI but in Lithuania the equivalent figure was only 4 %. Since then the economic development in these countries has been rapid. The highest economic growth between 1995 and 2002 was in Latvia where the GDP grew over 42 %. The growth of GDP was in Estonia 40,5 % and in Lithuania 31,9 % from 1995 to 2002. (Tiusanen, 2004)

The export earnings from oil, gas and other raw materials are essential for financing the growth of the Russian economy. The European Union is the most important trade partner of Russia. In year 2003 over 50 % (85 billion euros) of its total trade was with the EU. The main import from Russia to the EU is energy with a 57 % share of the total import (Trade statistics of EU, 2004).

This makes Russia dependent on its trade relations with EU countries and on the availability of transit transport services from the corridor countries. Over 40 % of total export in Russia has been transported through Baltic countries. The Russian government is in the process of constructing a new port capacity and pipelines to its own territory in the fear that too large a part of Russian exports have to be transported through neighbouring countries. (Laurila, 2004) Thus, it is possible that the Baltic states will earn decreasing income from the transit traffic under review in this report.

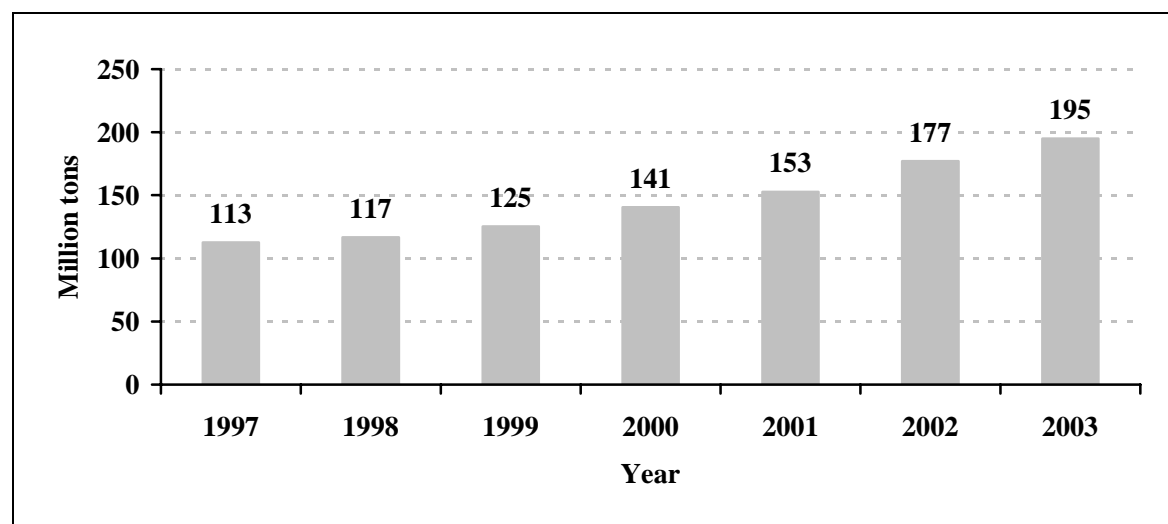
3. Development of the transit route via Finland

After the collapse of the Soviet Union, Finland became a growingly important transit route to and from Russia, as described in NORDI publication nro.8, “Development of Transit Traffic Via Finland”. The logistics infrastructure of the former Soviet Union was fragmented via the dissolution of the union. Port facilities in the Baltic states and in the Ukraine are since 1991 abroad from the perspective of Moscow. Thus, in the post-Soviet period Russia has been forced to rethink its traffic links.

Obviously, it was impossible for Russia to create new port facilities in the 1990s covering all its needs in the external economy. This situation gave the Finnish route a competitive edge and the traffic grew fast for seven contiguous years starting in 1991. The collapse of the Russian Rouble on the 17th of August 1998 put a stop to the growth and a new era of development started from it.

Since 1997 the cargo flow via the competing routes of Finland (St. Petersburg. Ports, Vyborg, Vysotsk, Primorsk, Kronstadt, Murmansk, Archangelsk, Estonian Ports, Latvian Ports and Lithuanian Ports and Kaliningrad) has nearly doubled. The main reason for this is naturally the fast growing export of oil and oil related products.

Figure 1. Development of traffic in the competing routes in 1997-2003



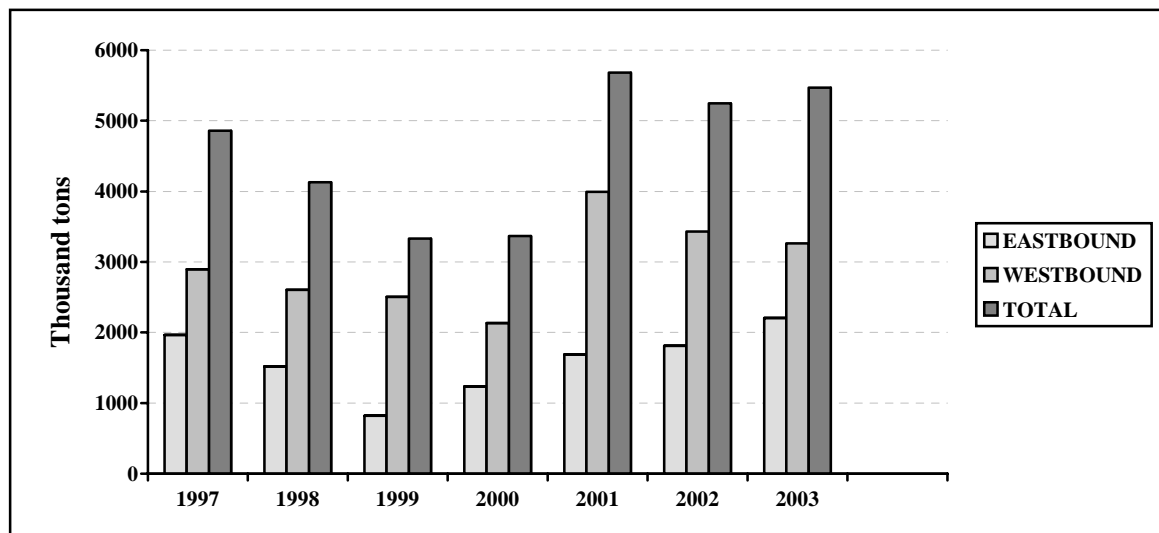
(Source: St. Petersburg Transport Institute)

The development of traffic via Finland has a somewhat different content than the development in the competing routes. The amount of bulk cargoes, oil and oil related products and fertilizers, has decreased in the Finnish route during the period of 1997 – 2003. However, the share of consumer

goods going to Russia, as well as the value added logistics (VAL) have grown significantly in Finland. The biggest winners in the traffic via Finland are ports of Hamina, Helsinki and Kotka and because of the Transsiberian traffic (TSR) the towns of Kouvola and Lappeenranta. Helsinki traffic is purely seagoing transit traffic in containers, which comes to and goes from Helsinki by feeder vessels. This new form of transit traffic, which is mainly connected to operations of Containerships has grown fast. Kotka is the winner when speaking of sea-connected container traffic and value added services connected to those. The new Mussalo container port (Kotka) is very busy and the container traffic growth from 2001-2003 was over 35 % on an annual basis. Kouvola and Hamina have the biggest share of the Transsiberian connected traffic and Lappeenranta has a share of that as well.

In general the total traffic via Finland measured in tons has not developed much. However, the content of the traffic has changed: the new form of traffic, which is mainly consumer goods containing value added services for the cargo in Finland, has developed dynamically. This form of service has a positive impact on the labour market and general well being in South-East Finland.

Figure 2. Transit traffic via Finland in 1997-2003



(Source: Statistics Finland)

As shown in Figure 2, the amount of traffic via the Finnish ports (in thousand tons) has grown slightly. This is mainly because of the increasing consumer goods flow to Russia (eastbound). The Russian export (westbound) traffic has decreased since year 2001. In 2001 the Port of Kotka benefited from the new discount system of the Finnish National Board of Navigation, which made a visit to the Finnish ports for large bulk vessels considerably cheaper. This discount gave a short-term boost to the Russian fertilizer flow via the Port of Kotka, but the traffic soon disappeared

again from Finland. Also it is to be noted that Finland has not really gotten a share of the rapidly growing oil export of Russia. Only smaller side flows are moving via Finland.

The competition environment of Finland can be divided in to two main parts:

- The transport of oil and oil related products
- Container traffic

The following analysis of the competition environment is divided accordingly.

3.1. The transport of oil and oil related products

Russia is the world's second largest oil producer after Saudi Arabia, with an 11,4 % share of the total production or 421 million tons in 2003. Although Russia produces a lot, it is only in seventh position measured by the oil reserves in the world. Russia's 9,4 billion tons of oil represents 6.0 % of the total reserves in the world. The largest reserves are held by Saudi Arabia (22,9 % of world reserves) and Iran (11,4 %). At the current production rate, it would take about 22 years to empty existing oil wells in Russia. Among the five largest oil producers in the world, Russia has the fourth highest reserve/production ratio after the large OPEC producers, but Russia is pumping oil much faster than the other countries with larger reserves. In comparison to the ten countries with the largest oil reserves, Russia is the second fastest in emptying its existing oil wells after the USA. (Ollus, 2004)

The total cargo throughput from 2003 has grown considerably especially in the ports of Butinge, Primorsk and Kaliningrad (table 1). Whereas the cargo growth in Kaliningrad can be explained by increasing container traffic, in Butinge and Primorsk, the growth is due to the export of oil and oil products.

Table 1. The total cargo throughput in Baltic ports in 1000 tons

	1997	1998	1999	2000	2001	2002	2003	Change 2002-2003
Klaipeda	16,10	15,00	15,70	19,30	17,20	19,74	21,19	7,35 %
Butinge	0,00	0,00	0,00	0,00	0,00	6,09	10,72	76,03 %
Ventspils	36,20	36,00	34,10	34,70	37,90	28,70	27,35	-4,70 %
Riga	11,50	13,30	12,00	13,30	14,80	18,11	21,73	19,99 %
Liepaja	2,30	2,30	2,30	2,90	3,20	4,32	4,86	12,50 %
Tallinn	17,10	21,40	26,50	29,30	32,30	37,80	37,65	-0,40 %
St. Petersburg	20,60	21,60	28,20	32,40	36,90	42,68	42,04	-1,50 %
Kaliningrad	5,90	4,40	4,10	4,30	5,80	9,51	12,71	33,65 %
Primorsk	0,00	0,00	0,00	0,00	0,00	12,37	17,69	43,01 %
total	109,7	114,0	122,9	136,2	148,1	179,3	195,9	9,27 %

(Source: The Services of Port Klaipeda, http://www.spk.lt/baltic_ports.htm 10.12.2004)

The Russian crude oil pipeline system is connected to three ports in the Baltic Sea and the Gulf of Finland: Ventspils in Latvia, Butinge in Lithuania and Primorsk in Russia. Some quantities of crude oil and large quantities of petroleum products are also exported through other Baltic ports via rail. The Baltic Pipeline System (BPS) gives Russia a direct outlet to northern European markets, allowing Russia to reduce its dependence on transit routes through Estonia, Latvia, and Lithuania. This means that oil export from Russia via the Baltic Sea has been re-routed through the BPS.

Before the construction of Primorsk, Ventspils was the largest port in the Baltic Sea and the second largest oil export terminal for Russian crude oil after the Black Sea port of Novorossiysk. In late 2002, the Russian pipeline monopoly, Transneft, stopped deliveries of crude oil to Ventspils because of the completion of its own port, Primorsk. Ventspils lost a significant market share and crude oil shipments have dropped off by almost 30 % since the year 2000 (<http://www.eia.doe.gov/emeu/cabs/baltics.html>). In year 2003, only 31 % of export from Ventspils was crude oil. Petroleum products and rail-borne crude oil were more expensive to transport than crude oil delivered via pipeline, and they had slimmer profit margins. Therefore, Ventspils is turning its business towards container traffic and free port operations.

The port of Butinge in Lithuania had better relations with its Russian suppliers. Major Russian oil supplier, Yukos, became the port's largest shareholder in year 2002. In addition, the port of Butinge is quite new and was completed in 1999 comparing to Ventspils, which was established 1961. Butinge is designed with both import and export capabilities. In 2003, Butinge reached its full capacity and exported 42 % more oil than in 2002 (Table 2).

Table 2. Volume of oil and oil products in Baltic ports 2002-2003 (1000 tons)

	2002	2003	Change 2002-2003
Klaipeda	6700	6640	-1 %
Butinge	6200	10647	42 %
Ventspils	20050	17508	-15 %
Riga	4947	4668	-6 %
Tallinn	25766	23828	-8 %
St. Petersburg	10600	11000	4 %
Primorsk	12454	17685	30 %

(Source: Central Statistical Bureau of Latvia, Port of Klaipeda, Statistical Office of Estonia)

The port of Primorsk came online to BPS in year 2001. The port of Primorsk is wholly owned and managed by Transneft. It is estimated that the oil export via Primorsk should reach 40 million tons before year 2010. The negative point about Primorsk is its situation at the end of the Gulf of

Finland. The Gulf is covered in ice approx. 120 days of the year. Shallow waters and the abundance of small islands along the approach to the Primorsk terminal, make the route to Primorsk difficult to sail with big oil tankers. The growth of oil export via Primorsk was 30 % in 2003 (see Table 2).

3.2. Container traffic

The competition environment of Finland in container traffic is changing rapidly. Finland was in a very strong position in container traffic after the collapse of the Soviet Union in 1991. In the 1990s, the ports of Finland had experience in serving global container traffic and at the same time the Finnish export industry needed more containers for the export. The growth of Russian container traffic gave Finland empty units for export since Russia had very little manufactured exports at that time. The rouble collapse in 1998 altered the competition environment radically. The Baltic ports and Russian domestic ports have expanded capacity and improved the level of service.

The amount of Russian connected container traffic was in 2002 about 1,5 million TEU (TEU = twenty feet equivalent unit). Finland's share of this total amount was about 23 %. This shows that the significance of Finland in container traffic is considerably bigger than in total transit traffic in which Finland's share was about 3 % of the total in 2002.

In the container traffic under review Finland had an amount of over 300.000 TEUs in 2002. The Russian ports in the Baltic Sea (St. Petersburg ports, Vyborg and Vysotsk) had about 600.000 TEU at the same time. The ports in the Baltic states in total had about 200.000 TEU. The ports in the Black Sea and Caspian Sea had about 100.000 TEU. The Transiberian railway connecting Far Eastern ports handled an amount of 300.000 TEU. The total amount of 1,5 million TEU in 2002 was about three times bigger than the amount in 1998.

The National Container Company (NCC), who is a major player in Russian container transport and handling, estimates that the amount of container traffic will reach 7 million TEU in 2012. Of this amount about 6,2 million TEU is expected to move via Russian ports. Figure 3 shows in detail the amount of Russia's container traffic in year 2002 and the forecast for year 2012 by the geographical location of the ports in question. In Finnish ports the growth is estimated to be 0,2 million TEU by 2012 and in Baltic ports the growth is estimated to be 0,1 million TEU.

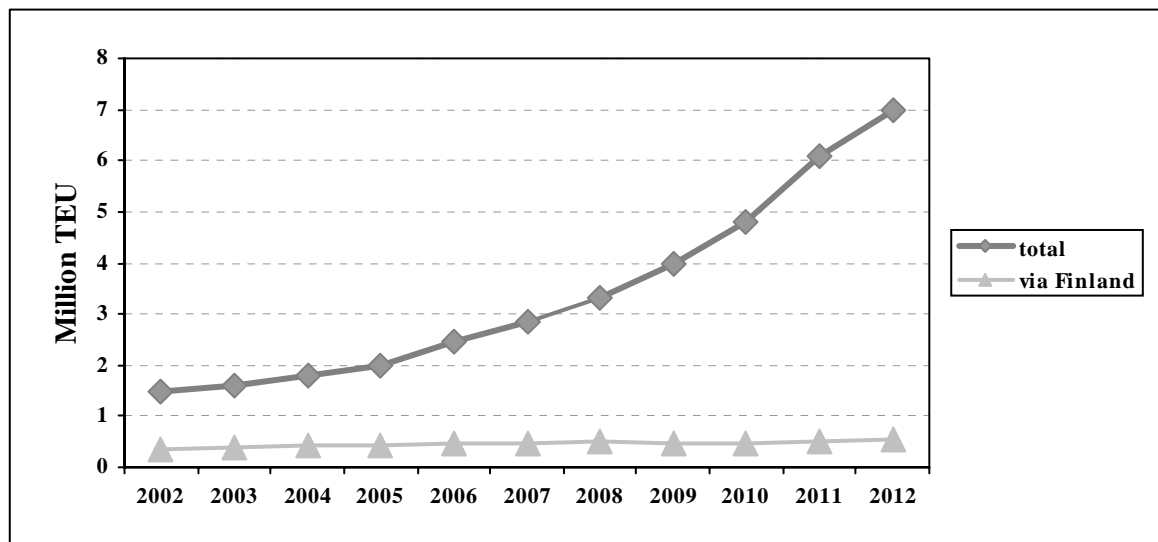
Figure 3. Development of Russia connected container traffics in TEU (2002 / 2012)



(Source: National Container Company (NCC))

Several private observers of the Russian scene believe that container traffic will grow strongly in the next ten years. Transcare, a private consulting firm, predicts that the Russian container traffic will reach about 7 million TEU in 2012. This forecast is illustrated by Figure 4 below.

Figure 4. Development estimate for container traffic related to Russia



(Source: TransCare and NCC)

The growth forecast of container traffic is very positive. The total amount of TEU is expected to grow more than four times in ten years. Despite the fact that Finland's market share is expected to decrease from about 23 % in 2002 to about 8 % in 2012, the actual sea going container flow is expected to double on the Finnish route during this period. It can be assumed that the competing routes cannot digest the overall expected growth.

3.2.1. *St. Petersburg*

St. Petersburg is known as Russia's window to the west. It is by far the most important port for import in the Russian logistics system. The port is located close to the end-users of the imported goods and it is considered as a home port. The container traffic in St. Petersburg has doubled during the period of 2001 –2003. The traffic amounted to about 660.000 TEU in 2003. The amount of 1 million TEU is expected to be reached by year 2007. Some estimates show a number of 2 million TEU in St. Petersburg by 2010.

The Commercial Sea Port of St. Petersburg is located practically in the heart of the City. This location is not favourable from the point of view of expanding the capacity. The fairway leading to the port is long and difficult especially for ice-breaking during the winter months. Therefore, the development projects heading for larger container handling and delivery capacity in St. Petersburg are diversified outside the Commercial Sea Port.

Currently there are four operational container terminals in the St. Petersburg region. In the Commercial Sea Port there is the First Container Terminal operated by the NCC (National Container Company), which belongs to the rich Severstal Group. Severstal is a steel and iron group that has invested funds in logistic structures in several locations in Russia. The current traffic from this terminal is about 450.000 TEU per year and it is by far the biggest terminal in the area. In the Commercial Sea Port there is also the so called "North Wharf" terminal that handles currently about 50.000 TEU per year.

Furthermore, inside the region of the Commercial Sea port there is a private port called "Timber Port" including the Petrosport terminal. This terminal was started by Finnish Containerships and is now operated by Russia. The current traffic is about 90.000 TEU per year.

The Finnish Containerships Group transferred its terminal to Kronstadt island a few years ago. This "Moby Dick" or "Littke" terminal has sea transport benefits, compared to the other terminals, inside the city. This terminal has traffic about 50.000 TEU per year. The terminal is located outside St. Petersburg on the previous military island of Kronstadt. Its location saves sea-voyage time. Especially during the ice period the movement of the ships is faster because they do not have to wait for the slow convoys to the City terminals of St. Petersburg.

The port of St. Petersburg is important window to Russia. Many serious players in international container terminal operations are trying to enter or have already entered the growing port business of St. Petersburg. There are huge development projects under construction, and thus, the future

port capacity of St. Petersburg will grow. The St. Petersburg port operations are expensive giving operators good return and incentive to invest even more.

The development plans in St. Petersburg obviously pose a risk to Finnish ports. Existing facilities in the port of St. Petersburg have expansion plans and new capacities are under construction. The First Container Terminal has announced that they will expand the capacity of their terminal by 150.000 TEU by 2007. The total capacity will be then about 600.000 TEU. Petrolesport is increasing its existing capacity by about 120.000 TEU (of which today about 90.000 TEU is used) to 220.000 TEU by 2005. The partner in this effort is the Hamburg based HHLA (Hamburg Haven und Lager Gesellschaft) that operates major container terminals in Hamburg and Luebeck. The North Wharf terminal has a capacity of about 100.000 TEU of which 50.000 is being utilized today. In Kronstadt, terminal Littke shall increase the capacity of 75.000 TEU per year (of which utilized today about 50.000 TEU) by another 75.000 TEU in 2005. Containerships Group restructured its port operations in 2004 by forming a new company called Multi-Link Terminals Ltd. A British publicly listed company Forth Port PLC purchased 50 % of this company.

The competition will intensify further, when the new Ust-Luga terminal locating on the south bank of the Gulf of Finland outside the City of St. Petersburg, will start operating in 2008. Ust-Luga terminal is a joint venture between National Container Company (NCC) and Eurogate. Eurogate is the main competitor of HHLA and it has operations in Bremerhaven and Hamburg in Germany and in several places globally. The terminal will be a modern container terminal built to a new environment having very few pre-set restrictions. The capacity of the first stage of this terminal is estimated to be 800.000 TEU. After completion of the project in 2015, the capacity of the terminal will be 3 million TEU. This is about ten times the amount of container traffic going via Finland today. The new terminal is supposed to take most of the growth of the container traffic and a part of the city terminal traffic of the First Container Terminal.

3.2.2. *Tallinn, Estonia*

Despite the lower shipping route fees and container handling costs compared to Finland, Estonia does not have strong hold on the Russian import flows. The transit container traffic of Estonia is practically concentrated at the Muga container terminal, a short distance east from Tallinn City.

There are some minor container flows in the Tallinn City port and in Paldiski Port, which is a slightly west from Tallinn City. There are also several new port projects on the way, e.g. the projects of Aseri and Sillamäe. Both of these projects are seeking finance. It is obvious that the

traffic related projects cannot be financed without public funding. New terminals can only be profitable, if they can attract a share of the transit traffic.

The container traffic in Muga Port reached about 100.000 TEU in 2003. Russian transit traffic is about 66 % of this total. Most of the products moving via Estonia in containers to Russia are so called “low-value” commodities whereas Finland has the “high-value” goods. The developing domestic market is increasing the Estonian container flows and the opinion of the Muga is that the existing capacity is not enabling faster growth than what they have now. The traffic has grown at a steady 10 %, annually, since 1999. In 1999 the amount of container traffic was about 65.000 TEU and in 2003 it was close to a 100.000 TEU.

Muga intends to increase the capacity to 250.000 TEUs in 2005. From the existing capacity of approx. 150.000 TEU is about 70 % is utilized. Muga got a new container berth and crane in 2004 and there is a planned logistics area of 56 ha in the process for 2005. The connections to a road network are supposed to be improved via a new bridge that should be ready in 2006. The Muga container terminal is operated by a private Muga Container Terminal A/S that is a part of the Tallinn based Transitkeskus (Transit Center) group.

The significance of Estonia in Russia related container flows is not big, but it is possible that as a member of the EU, Estonia will increase its share of the more high value goods that are currently handled in Finland on the north rim of the Gulf of Finland. The 56 hectares for a logistics center in Muga may enable Estonia to strengthen its position in Russian transit traffic.

3.2.3. *Riga, Latvia*

The port of Riga has one of the best service profiles in container traffic. The container terminal is operated by the Baltic Container Terminal (BCT) Ltd that is owned by the Maltese Hili Company Ltd. The Hili Company has been a minority shareholder in BCT since 1996 and acquired the whole share stock of the company in 1999. BCT terminal is located inside the Riga Free Port and is famous for not having any labor or labor union disturbances. The development of cargo handling technique has been good. The terminal has one of the best efficiency rates on the Baltic market.

The amount of container traffic via Riga has developed steadily since 1999. The amount of container traffic was about 86.000 TEU in 1999 and reached 132.000 TEU in 2003. About 70 % of the cargo is CIS and Russian transit traffic. Due to of the economic structure of Latvia and the

hinterland, Riga suffers of from a lack of export cargoes and about 30 % of the container traffic is empty units that are shipped out to other ports that have export cargoes.

Riga has well functioning rail connection to Moscow and the port is generally considered as the western end of the Trans Siberian Railway. The terminal does not have any concrete expansion plans since only about 50 % of the capacity is currently being used. The terminal intends to further develop the handling methods and equipment.

BCT is a negative example in the sense that even if the terminal itself is operationally good with a positive market profile, the capacity is underutilised. The imbalanced traffic structure and modest VAL services are limiting the development.

3.2.4. *Klaipeda, Lithuania*

The port of Klaipeda is challenging Riga in the competition over container volumes. Klaipeda has been successful in developing the container flows since 1999. In 1999 the container traffic from the port was about 29.000 TEU and it amounted to 118.000 TEU in 2003. In other words the traffic has grown four times since 1999 and has doubled after 2002.

The current capacity of the container terminal is 150.000 TEU per year and the terminal is modern and efficient. The port is looking actively to the hinterland market of the Ukraine and Belarus. There are several international port operators who are interested in Klaipeda's container terminal that is currently operated by local KLASKO. The capacity of the terminal is currently utilized to 80 %. There are no major development plans in Klaipeda.

3.2.5. *Ventspils, Latvia*

The Free Port of Ventspils is well located. It is ice-free all year round and the fairway to the port is suitable for big vessels. The port has a great interest to become the hub in the Baltic region container transports since oil transports are starting to decrease in Ventspils. The terminal has a capacity of about 120.000 TEU and it can be increased to 250.000 TEU rather easily. The amount of container traffic is at the moment small. The operator in the terminal is Noord Natie Ventspils Terminals LLC that is the daughter company of the Belgium based Noord Natie n.v., established in 1882, and thus, has long experience in international port operations. Noord Natie received from the European Bank for Reconstruction and Development (EBRD) a credit of 20 million Euros in 1999 for the development of the terminal.

3.2.6. *Kaliningrad*

Kaliningrad is an enclave of Russia. The city is a separate part of Russia and because of its location, it has received special benefits from the central government. Container traffic in the port of Kaliningrad has not been very significant and the container handling facilities in the port are modest. The traffic has been below 20.000 TEU per year, but in 2002 the traffic reached the amount of about 28.000 TEU and in 2003 the traffic was already on the level of 45.000 TEU. Only Klaipeda had a bigger growth rate of container traffic than Kaliningrad in 2003.

3.3. **Summary**

Considering the bulk products, oil, and oil related products, it is clear that Finland has lost its role as a transport corridor to Europe and its situation will not improve in the future. The BPS re-routes the crude oil transport to Primorsk. There are no plans to build an oil pipeline to Finland, to the refinery of Fortum in Porvoo, although it imports 10 million tons of oil from Russia annually. Opening oil export outlets not dependent on transit through other countries is a priority for Russia. Also the high shipping route fees and the inflexible policy of trade unions decrease effectively transit of other bulk products via Finland.

The actual figures of container traffic for analysed Baltic ports from years 2002 and 2003 are shown in Table 3. Klaipeda and Kaliningrad show remarkable growth. The growth percentage of container traffic in Ventspils doesn't show the right trend. In year 2004, the statistics presented for 10 months indicated that the throughput in 10 months was only 292 TEU. The change was -89 % compared to 2003. (http://www.transport.gov.lv/doc_upl/10_mnth_Ventspils_eng.pdf).

Table 3. Container throughput in main Baltic ports 2002 and 2003, TEU

	2002	2003	Growth %
Klaipeda	71589	118366	65 %
Ventspils*	1044	2573	146 %
Riga	127459	132074	4 %
Liepaja	2407	2549	6 %
Tallinn (Muga)	87912	99440	13 %
St. Petersburg	580639	656183	13 %
Kaliningrad	27871	44687	60 %
Total	898921	1055872	17 %

(Source: Transit Latvia, Port of Klaipeda, Port of Liepaja

*Statistics presented in 10 months)

As a comparison, the figures for the Finnish ports are in Table 4. These Finnish ports Hamina, Helsinki and Kotka handle most of the container traffic related to Russian trade. E.g. the port of Rauma is not mentioned in Table 4 although its container throughput in 2003 was 110100 TEU. Its container traffic was mostly direct import/export to/from Finland and not related to Russian trade and transit traffic. The strongest growth was in Hamina, 19 %. Totally, the Baltic ports showed 10 % bigger growth than Finnish ports.

Table 4. Container throughput in Finnish ports* 2002 and 2003, TEU

	2002	2003	Growth %
Hamina	89958	106995	19 %
Helsinki	456598	471778	3 %
Kotka	243803	268592	10 %
Total	790359	847365	7 %

(Source: Finnish Port Association)

*These ports handle most of the traffic related to Russian trade)

The expectations of container traffic growth are positive. There are many good reasons for this. So far, the growth has been remarkable that naturally supports investment plans. It is to be noted that there is already unused capacity e.g. in Muga and Riga. Most of the terminals elsewhere could handle more containers, but the slow customs functions are making the operations less optimal limiting actual business.

The Finnish economy is tightly regulated which may be harmful for competitiveness. The competing routes have the great benefit of being able to work seven days per week and 24 hours per day in port operations. This makes the service of ships much more flexible and cost efficient than in Finland. In Finland the actual stevedoring work (ship's side) is done only in two shifts and 5,5 days per week. This difference is a huge competitive edge benefiting competitors of Finland. It makes the utilisation of capacity more efficient than in Finland.

The general cost of stevedoring and container terminal work seems to be very global. In other words the charge in Finland is more or less on the same level as on the competing routes. St. Petersburg is an exception and the charge there is about 30 % more expensive than in Finland.

The productivity of the stevedoring work seems to be about the same in Finland and on the competing routes. The handling technique is about the same on all the routes. Containerships seem to be the productivity leader both in Finland and in St. Petersburg. The best terminals have the

shipside productivity of the stevedoring work about 25-30 containers per hour and the worst 15 – 18 containers per hour.

In the opinion of the clients of the terminals, container handling on the ship's side is a very much harmonised operation world-wide and the cost of it is about the same everywhere. When Russia and the Baltic states have the benefit of cheap labour, the stevedoring work and container terminal operations are a very lucrative business in comparison to Finland. Thus, there is a clear investment incentive in the competing routes, that is, in non-Finnish ports.

The difference in service comes from the landside operations. This includes the customs operations and on carriage of the containers. The customs operations in Finland are much simpler than e.g. in St. Petersburg. The Baltic States are following the "Finnish" practice after joining the EU, so the Finnish competitive edge in this respect is becoming smaller. The new Russian Customs Law is slowly simplifying the operation in Russia as well.

A substantial alteration in the port competition will take place in 2008 when the new Ust-Luga container port is supposed to open. This port has the capacity and quality needed to satisfy the needs of the clients. Most obviously this will not be the cheap choice, but it will become the major route into and from the Russian market.

Finland's benefit is the large amount of export cargo flow. The competed container traffic requires two way loaded traffic and most of the competing routes do not have any or have very little containerised export available. The Finnish export industry has a lot of containerised volume and this feature will help to maintain Finland's position in the future.

In the Northern part of Europe it is a well-known fact that not only economic but also political aspects play a role in the neighbourly relations. Undoubtedly, Russia is the most dominant country in the Baltic Sea. In the early 21st century it became obvious that Russia had the aim to enhance its self-sufficiency in traffic linked with external economic relations. The country has created a new Traffic Strategy for itself. This long-term strategy is the topic of the next chapter.

4. Key points of the Russian traffic strategy

The position of Finland as a transit route to / from Russia depends on the development of the cargo flows and demand. It also highly depends on the political situation and the governmental decisions in Russia. Therefore it is very important to have a look into the content of the newly published "Russian Transport Strategy".

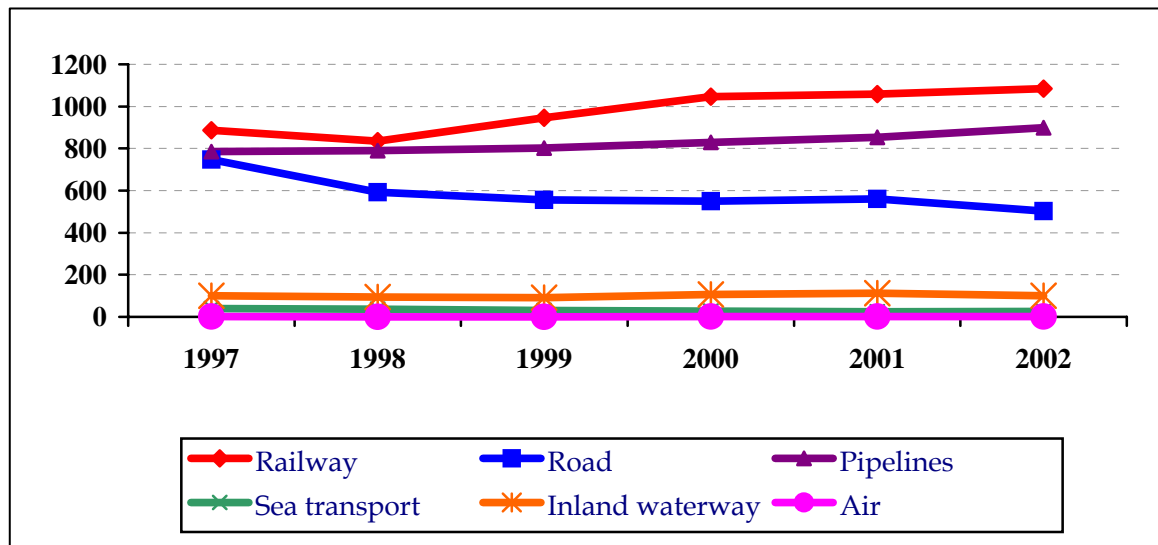
The basic concept of the Traffic Policy of the Russian Federation that was approved by the Cabinet of the Russian Federation in 1997, was formed under economic crisis conditions. The priority tasks of this concept were partly achieved and partly not and the concept as such had lost its relevancy with the fast change in the political and economical situation in Russia. The new situation demanded the Government to review the priority targets and content of the development of transport infrastructure of the Federation.

The Transport Strategy of the Russian Federation was published in early 2004. By the end of 2004 it was detailed and approved by the Cabinet of the country based on the decree of the President of Russia.

The Transport Strategy is based on the Constitution of Russia, to the letters of the President to the Meetings of the Federation, to the Development Strategy of the Federation until 2010 and other program documents of the Federation. The quantity values used in the Transport Strategy are based on the current status and on the medium- and long-range development estimates of the social-economical growth and related research materials of researchers. The Strategy stipulates the priorities and basic guidelines of the development of the transport policy and basic transport infrastructure till 2020.

The Strategy is based on the factors of the Russian economy and transport sector. The Russian transport Industries had a total performance of more than 2,6 billion tons in 2002. Russian railways had over one billion-ton share of this vast total amount (figure 5). The pipeline network of Russia was the second biggest carrier of cargo with an amount of about 900 million tons. Both railways and pipeline networks had a growing trend. The amount on road transport has a decreasing trend from the amount of about 800 million tons in 1997 down to about 500 million tons in 2002. The inland waterways, sea transport and air transport all have a steady amount over the period of 1997 – 2002. The total share of these three was together about 200 million tons annually.

Figure 5. Goods carried by the Russian Transport Industries in million tons



(Source: Russian Ministry of Transport, 2004)

The share of transport calculated in tons is vast and therefore the need for a solid transport strategy is more than understandable. From the production costs the share of transport is relatively big in Russia, nearly 15-20 %, when in developed market economies the equivalent figure is only 7-8 %. Naturally, geographical conditions, long distances and difficult natural conditions raise transport costs but also the defective level of the development of the freight transport system affects costs.

The openly declared patriotism in the foreign trade related transports is an interesting factor, when trying to analyse the possible future role of Finland as a gateway for the products coming from / heading to the Russian market. The strategy declares that the share of cargo to move via Russian ports must grow from 75 % in 2003 to 90 % by the end of 2010.

According to the official forecast of Russia economy, GDP and private consumption are expected to grow by a factor of three between 2000 and 2025. The energy intensity of Russian economy is presently on a very high level. Therefore, it is understandable that energy savings are demanded: the share of energy consumption is supposed to decrease by no less than 37 % in the GDP calculation in the forecast period. The GDP share of transportation is expected to drop by 26 % simultaneously.

These two ambitious aims call for extensive rationalisation investment. Obviously, economic growth will cause higher energy use in the present quarter of the century, but relative figure (energy consumption per product unit) is assumed to go down substantially. Transportation in absolute terms will also grow essentially, but transportation per rouble of GDP is supposed to decline by a quarter. If these two aims are met, there will be considerable positive welfare effects.

Possible energy savings will also influence foreign trade: decreasing energy intensity will obviously enhance export income (saved energy can be exported). The massive-scale import of energy-saving technologies would be rational.

The transport and telecommunication sector gross performance measured in millions of roubles (in year 2000 prices) is expected to grow about threefold by 2025. The transport sector excluding telecommunication is expected to grow about 2,5 times by 2025. Inside the transport sector the amount of passenger traffic will grow more than four times and the cargo transport amount will grow about 2 times by 2025. The figures are illustrated in Table 5.

Table 5. Gross performance of transport in Russia (mln. rbls in year 2000 prices)

	2000	2010	2025
Transport and telecommunications	1165	1960	3231
Transport totally	1006	1610	2566
- passenger	204	406	847
- cargo	802	1204	1718
-telecommunications	159	350	665

(Source: Russian Ministry of Transport, 2004)

The amount of transport performance is huge today and the growth expectations are considerable. At the same time the national economy estimate stipulates that the share of transport in GDP is decreasing significantly. This means that the transport sector has to become greatly more efficient and that a bigger share of production contains high value added products. At the same time it is assumed that the share of commodities and low value added products will decrease the overall production. Less tons will be transported in Russia in relation to the value of the cargo in the future. Also the share of transport services sold as export service in connection to transit traffic via Russia is expected to grow.

The transport strategy clearly and openly declares patriotism in connection to the foreign transport in Russia. The share of cargo moving via domestic ports is supposed to grow to 90 % by year 2010 when today it is 75 %. The share of cargo transported by Russian flag vessels is expected to grow to 50 % of the total cargo transported by ships by 2010 when today the share is 35 %. Also the amount of Russian companies serving the international cargo flows is supposed to increase.

The export of transport services is expected to grow substantially, about 2,5 – 3 fold, and generate more than 2 billion USD in income annually by 2025. The main transport corridors nominated in the strategy are:

- The Transsiberian (TSR) Corridor which connects Central Europe and Russian Far East ports and goes via Moscow
- The North – South Corridor which connects the Caspian and Black Sea regions via Moscow to St. Petersburg and Baltic Sea
- The Pan-European Corridor No.9 which connects the Central European regions via Moscow to St. Petersburg and Finland

Finland has no specific role in the Russian Transport Strategy. Finland is seen as a potential client for one of the corridors serving export of Russian transport services, but as such Finland and the Finnish route are not considered as a priority or somehow special.

The Russian Transport Strategy underlines problems and challenges linked with the development of the transport infrastructure. Firstly, there is a clear imbalance in transport modes in Russian import and export. The imports are largely containerised cargoes or shipped by RoRo vessels in trucks and trailers. The exports consist of liquid and bulk cargoes where the port facilities and cargo handling methods are different as in imports. Secondly, the lack of sufficient and regular shipping connections for serving Russian imports and exports of high value added products is a big problem. At the same time the development of terminals and ports is dividing the volumes to too many locations. Thirdly, the complicated Customs procedures are noted to be a handicap in the development process of the transports.

The Strategy stipulates many interesting points. The all-Russian transport network is to become more efficient and for the first time, the Eastern and Western parts of the country will be connected by a motorway. The share of traffic pollution is supposed to decrease. In the year 2003, the share of air pollution coming from the transport sector was about 33 % of the total. According to the Strategy, in 2025, the share will be about 22 %. It is obvious that the speed of transport must grow. In the domestic transport, the goal is to speed up the transport by 15-20 % and on the international corridors about 20-30 % of the current level. The transport must become safer. At the moment the number of deaths per 1000 cars is on the level of 1,2 where in the more developed countries the amount is 0,3. The goal is to be on the level of 0,6 per 1000 cars by year 2025. At the same time the amount of traffic originating from passenger cars is expected to grow. This is a direct consequence of the growth of the amount of personal cars. In year 2003, 50 % of Russian households had a car. In 2025, the expectation is 80 % of the households will have a car. The transport tariffs are expected to increase less than the inflation rate. The goal is to increase transport tariffs by about 0,8 – 0,9 % for every one percent average inflation rate. In general, traffic in Russia is growing and becoming more sophisticated.

5. The new Russian customs codex

Upon the collapse of Soviet Union the new Russia faced a challenging situation in the Customs operations. The centralised society of the Soviet Union with a centralised state of foreign trade organisations disappeared in 1991 and normal foreign trade started to appear very rapidly.

The Russian government recognised the problem connected with the new situation of taxation and the control of a suddenly fragmented structure of import and export. Rapid decisions needed to be taken in a hybrid situation of the aftermath of the collapse. The first decision in 1991 was to give the right to determine the rules and regulations of the Customs operations to the Customs Committee itself. The logical reason for this was that the organisation itself had the biggest experience available to start issuing rules and instructions in the new situation.

The system led soon to a situation where the orders issued by the Central Customs Committee of Russia were contradicted each other. This gave room to interpretations and disputes. The reality that the Customs organisation had a lot of power and influence soon gave ground to corruption and personal deals between clients and the customs.

The first Russian Customs codex became effective on January 1st 1994. This codex was based on the European Union Customs Codex, but it left still a lot of space for interpretation and a lot of decision-making power was left to the Customs Committee. During the ten year existence of the Customs Codex the Customs Committee published over 10.000 orders and instructions, which again, were a contradiction to the Codex and to international agreements and conventions. Interpretation of the Codex and orders became very complicated and in practice no-one was able to have full knowledge of the correct procedures.

The preparation of the new Customs Codex started in the Russian Duma in 1997. The political pressure in Russia at the beginning of 2000 added power to the development of the codex since Russia set new goals to develop foreign trade and foreign trade relations and increase integration to a global economy. The openly declared intention to become a member of WTO set pressure on the Customs codex. The Law was transferred to the Federal Council and for signing to the President of Russia in 2003. The Customs Codex is part of the public law of Russia. At best it can be applied to foreign trade legislation and legal regulation to transactions of foreign trade.

The codex became effective on January 1st 2004. It basically fulfills the WTO and WCO (World Customs Organisation) requirements concerning simplifying and harmonising the customs

procedures in international trade and having active co-operation between clients and customs as stipulated in the Kyoto-convention. The codex fulfills the need of simplifying, speeding up and having a predictable and transparent customs system that can be interpreted in an understandable manner.

The new Customs Codex is very straightforward in its content and it is often called “the codex of direct action” since it contains about 70 % of acts which directly instruct Customs in the operations and only about 30 % of the acts are such that the Customs Committee has the right to give its own instructions or orders or interpretations. The change to the previous situation is considerable. The customs organisation is under development pressure since the operations have to be conducted as ordered in the codex and practical power on the border posts and customs terminals is bigger than before.

The codex sets pre-declared requirements to organisations that sell customs operations further e.g. to customs brokers, forwarders and customs terminals. The amount of customs bonds is set to a level of 20-50 million roubles (about 0,6-1,5 million euros). This is estimated to decrease the number of customs operators considerably, which is told to decrease the amount of criminality connected to customs operations. The estimation is that only 15-20 operators would or could remain in the market. The risk is that the operations become monopolistic, but in the opinion of the Customs there will be enough operators remaining in the market to guarantee normal competition. The final result will be seen only in a few years time.

The Customs clearance time is now limited to three working days after customs has received the complete set of documents. E.g. in the EU there is no time limit for the operation and in Russia previously the clearance took a lot of time. The intention of the Russian codex is to speed up the previously slow customs operations.

There has been criticism among companies that the expected simplified procedures have not been available as widely as they were supposed to be. The three years experience and good reputation clause is limiting new reputable companies to enter the simplified customs procedures. The Customs has declared that there are possibilities within the codex to start implementing the rules to less experienced companies who have a good international reputation but not enough experience in the Russian market.

The choosing of the customs post for clearance of the cargo was previously always the decision of the customs. Now, the importer can basically choose where he wants his cargo to be customs cleared. The practical implementation of the situation has however been such that the importers

are complaining that they cannot freely choose. The Customs is defending itself by stating that high-risk cargoes having high amount of taxes and dues need to remain under special observation of the Customs.

Now, a list of documents stipulated in the codex is needed for various customs operations. Previously the documents and their content changed without pre-notice based on various intra-customs orders or instructions.

The risk of a transport company is now more limited. Previously, in the case of customs problems, the transport company had to prove to be innocent even in cases where the customs problem was connected to clearance after the transport was completed. Now, it is basically enough that the transport company delivers the cargo to the destination and receives a receipt from the receiving customs terminal. There is now a clear application of the fact that one is innocent until proven guilty. Previously one had to prove to be innocent.

The regulations connected to confiscation have changed. The customs can no longer confiscate cargo as collateral for penalties and the confiscation has to be based on a court order. Previously Russian customs could decide that themselves.

The transport equipment can no longer be confiscated as collateral for suspected customs criminal acts unless the transport means are used as an active tool in committing the crime. Also in this case the confiscation has to be based on a court decision.

Previously a person had to prove to be innocent and there was no such thing as a legal person existing. This was the practice until June 1st 2002. Now, it is possible to have a legal person as a guilty party.

Finally customs have the obligation to consult clients in customs matters. Previously this was done for a payment and now it has to happen free of charge and without delay.

In sum, the new Customs codex is a big step towards better. Customs, indeed, have a big responsibility towards the clients. The actual changes will be seen in the course of time. The start has been rather positive and there are no major claims pending. It is to be noted that the new Customs Codex is a major change but not the only change. Also the status of Customs is changing in Russia. The latest change took place 9th of March 2004, when the President of Russian Federation changed the status of Customs Committee to National Board of Customs. This entity is

responsible to the Ministry of Economic Development and Trade. In tax and duty collection matters the National Board of Customs is responsible to the Ministry of Finance.

The matters connected to free zones and customs functions connected to those are not included in the new customs codex. There is still a separate legislation governing these functions.

The key problem remaining after the new Customs codex was published, is that Russia still does not have clear regulations governing the clearance value of the commodities (like GATT Article VII). In the EU the stipulation of a minimum clearance value and how it is defined is clearly written in to the Customs codex. This matter is still creating a lot of uncertainty.

6. Internationalisation of logistics and free zones

The roots of logistics are in international transport. In traditional location theory, transport costs were optimised in relation to distance to market and production locations. Now, the availability of products from all around of the world, safe and fast inter-continental travel on container carriers and aircrafts are taken for granted. In this context, a clear link between logistics and economic development exists (Harrison and van Hoek, 2002). This means that regional economic development has to focus on the infrastructure needed to support integration into a global economy. There are still large amount of barriers, which hinder this integration. Local autonomy, local standards and local operating procedures staunch the information flow and material flow. Different languages and brand names increase product complexity. Coordination becomes complex because of additional language and currency transactions. In international transport there are also more stages in the distribution processes and local government interventions.

Harrison and van Hoek (2002) present that it is possible to identify four basic global generations in international investment and trade from the 1950s to today. These global shifts have an impact on international trade and the flow of goods. Especially destinations and logistics requirements are changing. The features of the different generations are presented in Table 6. The first generation was 1950-1960 when many countries were suffering from labour shortage. Companies moved to areas with available labour. The second generation was during 1960-1980. Labour costs started to grow and unionism impaired labour flexibility. A cheap labour force and a developing market in East and South East Asia attracted firms to move. The third generation was started from 1980. The primary driver towards internationalisation was market entry into closed economies such as China and Eastern Europe. The fourth generation is already visible in modern markets and emerging now. The primary driver is today the responsiveness to orders of customers. This means that in an international supply chain the transport routes are refocusing. Companies ship semi-finished products from their factories located in countries with a cheaper labour force to Europe, where they are finished in response to customers' demands by logistical systems. The fourth generation will recognise the logistics trade-off between responsiveness to local market and internationalisation.

Table 6. The generations of shifts in global investments and trade

Generation	First	Second	Third	Fourth
Period	1950s-60s	From 1960	From 1980	Emerging now
Primary drivers	Labour shortage	Labour costs and flexibility	Market entrance	Responsiveness to customers orders
Shift of labour and investment goods	European countries without labour shortage	NICs, low labour cost countries	Eastern Europe, China, Latin America	Western Europe
Transport routes	Still significantly continental	Increasingly continental	Adding additional destination regions	Beginning to refocus on continental
Nature of international flow of goods	Physical distribution	Shipping parts to production locations and exporting finished products	Physical distribution towards new market regions	Shipping semi-finished products to Europe, where they are finalised to customer demand by logistics systems

(Source: Harrison and van Hoek, 2002, p. 82)

From the companies point of view there are five forces driving enterprises to the borderless world (Bowersox and Closs, 1996): economic growth, supply chain perspective, regionalisation, technology and deregulation. The economic growth and increased productivity because of new technology cause excess capacity. To increase profit and revenue, firms move on through global expansion into developed regions and nations. They need to develop new markets to secure sustainable growth. Logistical competency is achieved by evolving a supply chain perspective through outsourcing, supply network design, information, transportation, inventory, warehousing, material handling and packaging. Support and cooperation of many other businesses is needed to complete logistical processes. This is a challenge, while the international trade grows fast and logistical operations cross the borders. World markets are not homogenous and local needs must be customised. To promote regional trade and protect trading partners from outside competition, countries have formalised partnerships through treaties e.g. North American Free Trade Agreement (NAFTA) and European Community (EC)¹. The development of information technology has accelerated trade processes and alleviated communication between trade parties and authorities. Deregulation of finance and transportation rights lower the level of entering a new market.

¹ The European Community (EC), was originally founded on March 25, 1957 by the signing of the Treaty of Rome under the name of European Economic Community (EEC). The 'Economic' was removed from its name by the Maastricht treaty in 1992. EC is later called commonly as European Union (EU).

The demand of companies sourcing and selling on an international scale to logistic service providers is “one-stop shopping” approach meaning single management interface for all operations, global coverage, complete range of logistics services, supply chain solutions through collaboration and networking, management and execution of customer processes, quality and cost focus and overall competence within information systems (Larsson 2000). According to Alan Branch (2002) to be a successful logistic operation on an international scale there are two main criteria that have to be satisfied. There has to be 1) an integrated network of professionals throughout all countries concerned to ensure the smooth passage of goods and 2) expertise and special knowledge of laws, conventions, product quality controls and regulations concerning the international trade environment.

When expanding the functions to new market and new locations, firms need to consider carefully the location and distribution strategies. In the survey by van Hoek (Cranfield University, 2000), it is stated that physical distribution or costs are no longer the most important location factors in international business modelling. More important is availability of qualified labour and information infrastructure. Information and communication technology can enable global and instant connectivity and coordination of transport flows. Qualified labour reflects the changing roles and responsibilities of logistics personnel. According to Lukka (2004) the responsiveness of the supply chain and visibility through the chain links and networks are crucial competitive factors in an international business. The increasing logistical complexity drives global companies to streamline and unify their processes. The location selection for new production plants is highly affected by various cost factors.

In this context, the idea of cross border zone of South East Finland as a logistical solution to fulfill the demands of customers with international trade to or from Russia ought to be assessed carefully. Some details of this issue are brought up below.

6.1. Free zone concept

Inventories are major assets in international business. They tie up cash, need resources to be stored and can go obsolete. A primary goal of supply chain management is to replace inventory with information (Harrison and van Hoek, 2002). However, in international trade, material flow without any inventories is hard to obtain and in some cases even impossible. To ensure a smooth level of supply and distribution at international scale, companies have found the free zone concept suitable for their purposes. Many seaports and cross border areas have established free ports and zones to provide effective warehouse management, VAL-services, and places for subsidiaries and

assembly plants. Free zone can be considered to be a logistical service hub and a link in the international supply chain between a supplier and a customer, which provides advantages to its users and to the management of the supply chain. The function of the free zone concept is parallel with the primary driver of the fourth generation of international investment and trade; responsiveness to customers orders.

For free zones there are many definitions and many types of free zones exist. The EEC council regulation no. 2504/88 25th of July 1988 on free zones and free warehouses describes the concept of free zones as follows: “Free Zones mean part of the Customs territory of the Community, separate from the rest of that territory, in which non-Community goods placed in them are considered, for purposes of the application of import duties and commercial policy import measures, as not being within the Customs territory of the Community provided they are not released for free circulation or entered under another Customs procedure”. According to the Kyoto Convention, Annex F.1. (1978, entered into force 19.3.1979) a free zone means “a part of the territory of a state where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the customs territory and are not subject to usual customs control”. The International Labour Office (ILO) has defined free zones as “industrial zones with special incentives set up to attract foreign investors, in which imported materials undergo some degree of processing before being re-exported again”. Thus, ILO defines free zones as “industrial zones” and calls them “export processing zones”.

Commonly free zones are areas, which are separated from other areas of the country. Trade, industry and services engaged in these areas are not under the same regulation as the normal industrial and commercial activity in the country. The main purpose of free zones is to remove trade barriers and to develop free international trade. They play an important role in international economic policy because an increasing share of international trade is flowing through the free zones employing a growing number of people and boosting the economy and trade in their sphere of influence.

During the past ten years free zones have become a rapidly developing global phenomenon. According to the statistics and estimation of ILO (Table 7) the number of countries having free zones has increased from 1995 to 2002 by 59 %. In one country there can be several free zones. Official Journal of the European Communities (2002/C 50 p.16) has listed 31 free zones in the territory of the EU.

Table 7. Estimates of the development of export processing zones

	1975	1986	1995	1997	2002
No. of countries with EPZs	25	47	73	93	116
No. of EPZs	79	176	500	845	3000
Employment (millions)	n.a	n.a	n.a	22,5	43
-of which China	n.a	n.a	n.a	18	30
-other countries for which figures available	0,8	1,9	n.a	4,5	13

Total of countries for which data were available 108

(Source: ILO, 2003 p.2 ,calculations based on variety of sources including zone administrations, national statistics, Web sites, published articles, estimates and responses to ILO surveys, updated to Dec. 2002)

Traditionally free zones offer benefits in taxes and customs duties and are tightly controlled areas with high fences and gates. The new concept is that free zones are regional zones, which provide also services and value added logistics to the companies engaged in international trade. Free zones have evolved from traditional warehousing, assembly and simple processing activities to high tech and science zones, finance zones, logistics centres and even tourist resorts. Their physical form includes not only enclave-type zones but also single-industry and – commodity zones. Some areas, like Mauritius and Hainan in China, allow factories anywhere on their area to apply for zone status. Port cities like Hong Kong and Singapore have enhanced their strategic trading role providing special customs regimes for export processing and transshipment. The establishment and financing of the free zones have been performed by public agencies like cities and states, but now there is an apparent trend towards private development of zones, often by foreign investors. Free zones offer usually a good infrastructure for its customers but private financed and managed zones generally exceed the level of infrastructure of public zones in order to attract higher quality investors and customers. (ILO, 2003)

6.2. Incentives and key features

The free zone concept varies from country to country and the extension and maximisation of incentives differ according to what kind of business each country wants to emphasise and what incentives the regulation allows. However, some common incentives of free zones globally can be found. Firstly, discrimination is not allowed. All entrepreneurs and traders have the right to engage in business and have access possibility to the zone. Free zones enable also unrestricted transit traffic, transport and loading. To attract new entrepreneurs and contribute business there are usually simplified business start-up procedures and licence requirements as well as simplified customs procedures. Relieves from customs duties and tax breaks are traditional common incentives. Financial incentives such as a free repatriation right on capital and low interest rates together with subsidised infrastructures (lower rents, cheaper services etc.) are important

incentives. Deregulation of labour laws is a common incentive in developing countries but hardly possible in western developed economies. (Trampus, 2003)

The basic and most important feature that effects both establishing and the success of the free zone is strategic location and that it has unique positioning among international free zones. It is obvious that free zones arise in places which are natural transport hubs with international connections and where inter-modal transport systems (railway, sea, road, air) can be created. Market demand and client mix influence the establishment. Free zones practice mainly traditional international trading (import and export) and 24-hour business. Optimisation and utilisation of space and investments in infrastructure such as telecommunications, power, water, waste disposal and land for expansion or manufacturing areas are common features. A free zone needs to provide also competitive pricing in rentals, marketing, utilities etc. One key feature of free zones is that free zones are modern logistics centres of varying intensities. Logistical services are usually warehousing, packing and distribution but may also include value-adding production and assembling from parts using agile and lean philosophies. (Matras, 2003)

Zones have objectives such as promoting linkages with domestic (the internal economy of a nation) economies, encouraging technology transfer and promoting new industrialisation strategies. By definition free zones are not allowed to produce any form of forward linkages, but backward linkages are not ruled out (Jayanthakumaran, 2003). Forward linkages mean for instance that goods imported to or manufactured in the free zone can't be sold to a domestic market without paying customs and taxes as an indirect import. Backward linkages can mean domestic suppliers and raw materials. The greater the isolation of a zone from the domestic economy, the fewer the backward linkages.

The policy of free zone can be inward or outward orientation. The Philippines and Indonesia represent inward-orientated countries where the free zones are areas, which are free from distortions in the domestic economy. China has the opposite policy where outward orientation means the opening of their own economy and its integration into world economy. Many free zones in the world engage in labour-intensive light manufacturing such as garment production and assembly of electronics, which are also called "footloose manufacturing". These industries can easily be relocated because production technology is standardised and requires only low-skilled workers. (Jayanthakumaran, 2003)

The industrial processing of a free zone is not necessarily focused only on export. Free zones can also operate as import centers into certain markets. Raw materials or assembly kits are imported to the free zone where they undergo processing and are then imported to the market on the main

land. A free zone can be used as part of the company's internationalisation strategy and location target of a distribution centre.

6.3. Success factors

The operation of a free zone depends on the drivers and factors that affect its development and success. National foreign trade policy and regional development aspects have to support the decision of the adoption of the free zone concept. The zone operator has to have good managerial capacity and the operations must be customer focused. Financing of free zones need to be solved in a proper way. State investments and subsidies are usually the main financing resources of free zones but a wider basis of ownership, FDI and private stakeholders could add the vitality. It is important not to rely on a single investor and the support of stakeholders must be ensured. (Tiya, 2003)

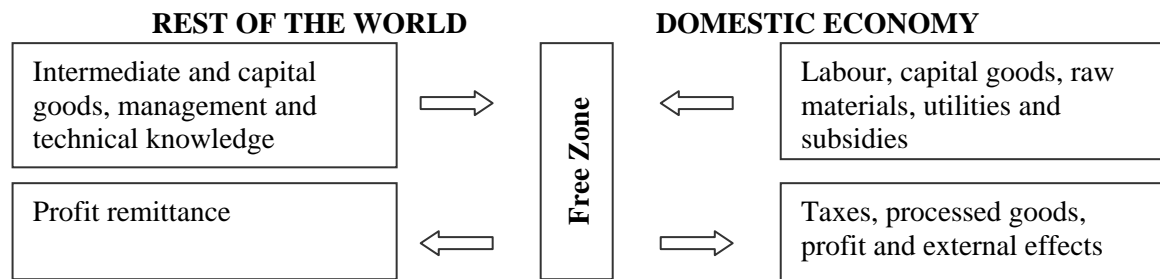
According to Johansson and Nilsson (1997), in order to generate positive effects on the hosting area, free zones must attract investments and they must generate earnings without heavy subsidies. Secondly, a free zone should have a positive influence on domestic companies, not only within the zone but also outside the zone. Finally, free zones should influence the trade policy regime of the host country by initiating trade reforms. If the zone fulfils these prerequisites the zone can have a significant catalyst effect on positive economic development in the host country.

It is important that free zones upgrade their activities to higher value-added products and services requiring a more skilled workforce and find their niche in the international production network and supply chain. Countries, e.g. Ireland, which have been successful in using their free zones to generate economic growth, employment and improvements in the quality of employment, have pursued strategies that combine higher value products and services with labour market policies and the interests of the government and the social partners. Zones can potentially increase employment by providing new incentives to encourage local sourcing and fostering enterprises so that they can acquire the technology and expertise to meet the scale and quality requirements of zone enterprises. (ILO, 2003)

Calculating the benefits and costs of free zones is a complex task while the factors affecting the free zones success are diverse. The flow of goods, services and money between domestic economy and a free zone are important to the economy and welfare of the host country citizens. The position of the free zone between domestic economy and the rest of the world is described in Figure 6. The domestic economy provides capital, infrastructure, labour and raw material, and it

receives taxes, wages and profits from domestic shareholders. The rest of the world provides intermediate and capital goods, money, technical knowledge and management, and it receives profits.

Figure 6. The enclave model



Source: Jayanthakumaran 2003, Warr 1989

Jayanthakumaran has stated in his study (2003) that zones are beneficial mainly in their early stage of development and their impact will reduce, when the economic position of the host country ascends. Heavy reliance on foreign investors is unlikely to maximise the welfare of a domestic country and there should be a balance between domestic and foreign investment. If a free zone generates profit to domestic shareholders and tax incomes to the state, the positive effect on the domestic economy will increase. Free zones are most effective, when they form an integrated economic strategy that includes fiscal incentives, investments in infrastructure, technology and human capital, and linkages into local economy. Free zones combine the international mobility of capital with domestic workers and export-traded goods.

6.4. Regulation of free zones

Globally, there is no common legislation on free zones. Countries are free to set up free zones and can grant them exemptions from prevailing practices as long the dispensations don't violate general trade and customs agreements and treaties between countries. Such agreements are the memberships of World Trade Organisation (WTO) and European Union (EU). This means that member countries must comply with regulations regarding customs barriers, unfair trade practices, rules of origin and export subsidies.

General harmonisation of the rules of the international trade has reduced the attraction of free zones. Lower customs duties or total duty-free trade, which were previously the main incentives of using free zones, are almost eliminated especially in the EU. It can be stated that the main reasons for creating free zones in Europe are advancing regional development, creating jobs and help in development of small and medium size enterprises.

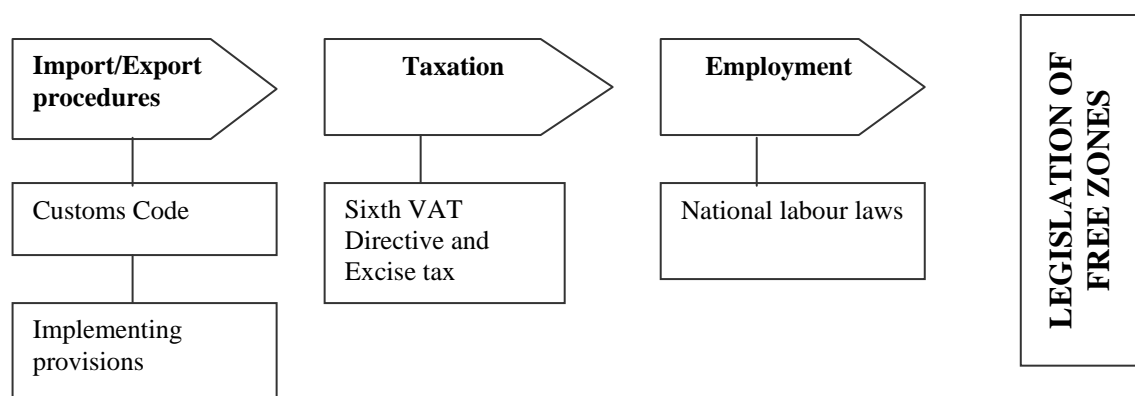
6.5. Legal framework

The creation and functioning of free zones are set out in Annex. F.1 of the Kyoto Convention in 1973. WTO rules concerning free zones are based on this decree as well as the EU regulation. It allows goods to be placed in the free zone for the exemption or refund of import duties and internal taxes. It prohibits the restrictions of goods quantities, origin and destination. However, access to the free zone may be refused for reasons relating to the protection of human, animal or plant life or health, of public security, the environmental or intellectual property rights. Goods may be stored, undergo usual forms of handling or be processed.

The member countries of the European Union have to comply with the laws, directives and decrees defined by the European Commission. The legislation of a member country is a secondary legal rule. It is important to note that the benefits provided by the customs code are not any special privileges just for free zones, since same advantages can be achieved by using other customs procedures such as customs warehousing and inward processing arrangements.

The EU regulation of free zones is based on the Kyoto Convention 18th of May 1973 on simplification and harmonisation of Customs procedures. Since the common harmonisation the customs procedures and customs incentives are no more success factors, it is important to search other dimensions of legislation affecting on business such as tax and labour laws. Figure 7 clarifies the legislation concerning free zones. The EU Customs Code and Implementing provisions define the basic customs regime concerning free zones in the EU. VAT and Excise tax directives determine the taxation of business. Labour law forms a frame for employment. Appendix II contains the detailed list of laws in concern.

Figure 7. The legal framework concerning free zones



The incentives related to customs and tax regimes to use free zone arrangements are to suspend the payment of customs, VAT, excise duties and applications of commercial policy measures such

as import licences. These licences can be delayed until the goods are released for free circulation or they are assigned to another customs-approved treatment.

6.5.1. Customs procedures

The legislation divides goods into two categories: non-Community goods and Community goods. Non-Community goods are goods on which import duties have not yet been paid, while Community goods are produced inside the EU or goods imported into the EU on which the import duty is paid. Both, Community and non-Community goods, can be placed into the free zone but only Community goods are allowed to be consumed and used. Non-Community goods can be released for free circulation, assigned to usual forms of handling, placed under inward processing, entered for processing under customs control, placed under temporary importation, abandoned to the exchequer or destroyed. (<http://www.europa.eu.int/eur-lex/fi/index.html>)

According to the Customs Code the control of free zones can be arranged in two different ways, to Control type I and to Control type II. In control type I the control of free zones is principally based on the existence and supervision of a fence at the entry and exit points. In Control type II free zone customs checks and formalities are principally carried out on the basis of the provisions for the customs warehousing procedure. This means that, unlike with control type I free zones, the goods must be subject to a customs import declaration when entered in to the control type II free zone. However, in a free zone where most of the stored goods have the status of Community goods, the declaration requirement turns into an advantage, while their status does not need to be proved when entering or leaving from the zone. In the case, when the goods are mainly non-Community goods control type I free zone is more advantageous because any formalities are not required when goods are imported directly from the third country into the free zone. The major differences between the two control types of free zones are described in Appendix I. In any case the operators of the free zones are obligated to keep a record of stock in a form accepted by the customs authorities.

Customs procedures with economic impact are arrangements designed to allow companies to perform economic activities without customs duties. Thus, they attract and maintain economic activities in the EU and enhance competitiveness between European companies. The procedures allow the storage of non-Community goods in the customs territory, importing of non-Community raw material for further processing and re-exporting and temporarily importing of a non-Community goods for the purpose of showing them at an exhibition. However, the use of these arrangements needs prior authorisation granted by customs authorities and keeping of a detailed bookkeeping for customs purposes allowing the activities to be monitored and controlled. The

entry into and ending of the arrangements are made by a customs declaration. All customs procedures with economic impact are allowed in the free zones. (http://europa.eu.int/comm/taxation_customs/law_en.htm)

There are five Customs procedures with economic impact:

1. Customs warehousing
2. Inward processing
3. Processing under customs control
4. Temporary importation
5. Outward processing

Customs warehousing allows the owner to hold imported non-Community goods in the warehouse and to choose when to pay the duties or re-export the goods. The processing allowed on goods held in warehouse is limited only to preserving activities for subsequent distribution. However, inward processing or processing under the customs control regime is allowed within the same physical premises. Inward processing means that imported raw materials or semi-manufactured goods can be processed for re-export inside the Community by EU manufacturers without paying VAT on the goods being used. In this customs procedure customs duty is suspended or the duty is paid and later refunded. Processing under customs control means that goods may be processed into products, which are subject to a lower duty rate before they are released for free circulation. E.g. PVC materials which are subject to a duty rate of 8,3 % may be processed into film screens with a duty rate of 2,7 %. Temporary importation of goods is allowed for re-exportation when the goods remain in the same state as they were imported. Outward processing is the opposite of inward processing. It means that community goods are processed abroad and finalised goods are allowed to return into the EU for free circulation. The duty is paid only on the value added abroad.

6.5.2. *VAT and Excise tax*

The Community VAT law is very complex in its construction and it is not contained to one area of the law like the Customs Code. The basic law is “Directive 77/388/EEC on the common system of value added tax”. It is called the “Sixth VAT Directive”. It has been amended many times and there are several derogations in force among EU member states. (http://europa.eu.int/comm/taxation_customs/law_en.htm)

In principle free zones are inside the fiscal territory of the EU for VAT purposes. The trade of goods and services inside the free zone is exempted from VAT. If goods or services are sold from

the EU territory into the free zone the seller has to apply an export regime in order to have VAT free sales. In case the goods or services are sold from free zones into the EU territory, the sales are VAT free, but are treated as import and therefore customs duties must be paid. (Verohallitus, 2002, p.9)

The Council Directive 92/12/EEC defines the goods under excise tax to be mineral oils, alcohol and alcoholic beverages and manufactured tobacco. In general, the taxation of these goods is conducted in the destination country, where they are consumed. The goods are subject to excise duty at the time of their production within the EU or at their importation into the EU. When such goods coming from or going to countries outside the EU are placed in the free zone the excise duty is suspended. (Verohallitus, 2004, p.19)

The harmonisation of VAT and Excise tax is necessary to ensure the establishment and functioning of the internal market of the EU member states. However, there is no single rule for harmonisation of direct taxation. Therefore, member states can have a different level of taxation e.g. in corporate taxes and income taxes. To prevent harmful tax competition, which can cause distortions in the single market or excessive losses of tax revenue, EU member states have agreed on a code of conduct for business taxation. Taxation that provides a significantly lower effective level, including zero taxation, than those taxation levels which generally are applied in the member states are to be regarded potentially harmful (Official Journal, 1998, p. 2). This means that new harmful tax measures are not allowed and existing laws and practises have to be re-examined.

State aids and subsidies need to be accepted by the EU. Subsidies which operate directly or indirectly to increase exports of any product are considered to be harmful. According to article 92 of the EC Treaty any aid including tax breaks granted by a member state or through a state resource is prohibited if it distorts or threatens to distort competition by favouring certain firms or the production of certain goods and affects trade between member states. In the case where the state aid or subsidy is aimed to promote economic development of areas, where the standard of living is abnormally low or where there is serious unemployment, the EU Commission can decide if a certain subsidy or aid is allowed or abolished. Similarly, state aid can be allowed if the subsidies' purpose is to support an important project of common European interest, remedy a serious imbalance in the economy of a member state, contribute the development of certain economic activities, where such aid does not adversely affect trading conditions and common interest. Such decisions are regularly taken including free zones, but the details are not open to the public. E.g. the Madeira Free Trade Zone is exempt from paying customs duties on investment goods used in the free zone and import goods consumed in the free zone. In order to promote

transparency, the Commission publishes guidelines on the application of the state aid rules and measures relating to direct business taxation. (Lux, 1998)

6.5.3. *Labour laws*

As shown in table 7 the number of free zones has increased sharply employing more and more people globally. Export-led industrialisation through free zones has been strongly female-intensive. Women make up the majority of workers reaching up to 90 % in some free zones. However, it seems that when the nature of employment in zones evolves higher technology inputs, the gender profile of the workforce changes. Zones follow a life cycle and tend to grow rapidly in terms of investment and employment creation, then diminishing when the local labour market tightens. The turnover of zone workers is high, on average the employees work seldom longer than five years. The intensive nature of production, cultural factors, use of fixed-term contracts, a lack of human resource development (HRD) policies and underdeveloped labour relations practises contribute to the turnover. Zones with tight labour markets have better conditions as enterprises try to attract and retain workers through non-wage benefits. Zones with higher value-added activities tend to concentrate more on HRD policies since their investors require higher skills from workers. (ILO, 2002)

Commonly, free zones apply the labour laws of their location country and each country defines and develops its own labour laws. Therefore it is possible that the multinational employers of free zones practise a different labour policy in different countries. E.g. in Dubai strikes and trade unionism are illegal, in Hong Kong income tax is 16 % on all salary income and in Mauritius the employer must pay for and provide transport to work if the distance is greater than 3.2 km. In this case, free zone companies are given a tax break on the purchase of staff buses.

The Seventh Survey on the effect given to the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (Analytical report of the Working Group on the reports submitted by governments and by employers' and workers' organisations) has examined labour practises in free zones. Most of the reports stated that the labour laws in the zones were the same as applied elsewhere in the country. However, some respondents noted that the labour laws applicable in these zones differed from those applied elsewhere in the country. Even when there are no legislative barriers the organisations of workers faced difficulties in gaining access to fenced zones. The Government of Kenya noted in the survey that it is very common for multinational enterprises not to allow their employees to join trade unions although employees have the legal right to do so and bargain collectively. The Committee of Experts on the Application of Conventions and Recommendations (CEACR) has listed discrepancies between

ratified conventions and practice as regards to the right to belong to a trade union, the right to strike and rights concerning collective bargaining. On the other hand prevailing conditions of employees on free zones are often better than outside the zones. A study by the World Bank has found that wages in free zones tend to be higher on average than the national minimum wage. (ILO, 2003)

6.6. World Trade Organisation (WTO)

The WTO was established the 1st of January 1995. It is based on a General Agreement on Tariffs and Trade (GATT) from the year 1948. Eight separate rounds of international negotiations under the GATT have reduced tariffs and other trade barriers over the past 50 years. Countries tend to negotiate over several years on new agreements. These series of negotiations are called “rounds” e.g. Uruguay Round 1986-1994 and Doha Development Agenda starting 2001. According to the web page of WTO (<http://www.wto.org>), in April 2004 it had 147 members.

The functions of WTO are: administering of WTO trade agreements, to be a forum for trade policy discussions and negotiations, handle and resolve trade disputes, monitor national trade policies, give technical assistance and training to developing countries and cooperate with other international organisations. The WTO is the core of the international rules-based system for world trade. It is the most legitimate forum for removing obstacles in trade. (EU:Making globalisation work for everyone, 2003 p. 9)

WTO is the only major international organisation without Russian participation and in turn Russia is the largest world trading country outside WTO. International trade is one of the key factors of national economic development and President Putin has reported that joining the WTO is one of the most important goals in Russia’s national foreign economic policy. The work on bringing the Russian legislative system in accordance with the WTO norms and principles is almost finished and Russia has already signed Protocols on Accession with several trading partners. However, Russian negotiators declare that there are no time limits on joining the WTO and the process will take as much time as needed, in order to obtain appropriate conditions of accession. Problems to be solved before accession to WTO are for example import and export tariffs. Together with other payments dealing with foreign trade regulation import and export tariffs forms 25-30 % of the Russian budget revenue compared to less than 1 % in the case of the USA, Canada and many EU countries. The other hindrance of free trade is the low level of competitiveness from Russian companies. Thus, Russia needs protectionism. It is stated that Russia will be a full member of WTO in 2005, but in reality it could take much longer. (Kapustkin, 2004)

In developing economies it is essential to plan free zones first and not to wait for legislation, because the legislation is usually formulated later on to support the functions of the free zones. In western countries the zones are highly regulated by an existing law and new zones need to conform with the law. In Russia, the legislation concerning free zones is under construction. Most likely the forthcoming legislation will deal with of the Kaliningrad's status, which hopefully will be in line with WTO rules (Orlov, 2004).

7. Free zone cases

7.1. Background of the samples

To find out what kind of business free zones can engage in and which factors have affected in their success, a desk research and a short analysis is done of seven different free zones. Three of them are located on the territory of the EU: Shannon, Barcelona and Trieste. They represent different businesses and have different backgrounds under the legislation of the EU. Kaliningrad from Russia represents free zone functions in Russia. To study the possibilities what cross border zones can offer, McAllen from the USA/Mexico border is chosen. Jebel Ali and Hong Kong are examples of zones, where the regulation is as low as possible. Currently, in Finland, there are officially two free zones in operation: Lappeenranta Free Zone Ltd and the Free Port of Finland Oy (Hanko). A short description of their functions is included.

7.1.1. *Shannon Free Zone, Ireland*

The Shannon Free Zone in Ireland was established in 1958 and its overall area is 243 ha. In the area ca. 120 companies operate, which employ over 7500 people. The location of the free zone is based on its proximity to the international airport of Shannon. It is the only airport in Ireland that has over 3047 metres of landing strip and has a strategic location for major air routes between North-America and Europe. Shannon is located on the west coast of Ireland. Its location can be seen in Figure 8. The main incentives of Shannon are low corporate tax, world-class infrastructure, a skilled labour force, a large sub-supply base and many-sided services such as R&D service and call centers. (<http://www.shannonireland.com>)

Figure 8. The location of Shannon in Ireland

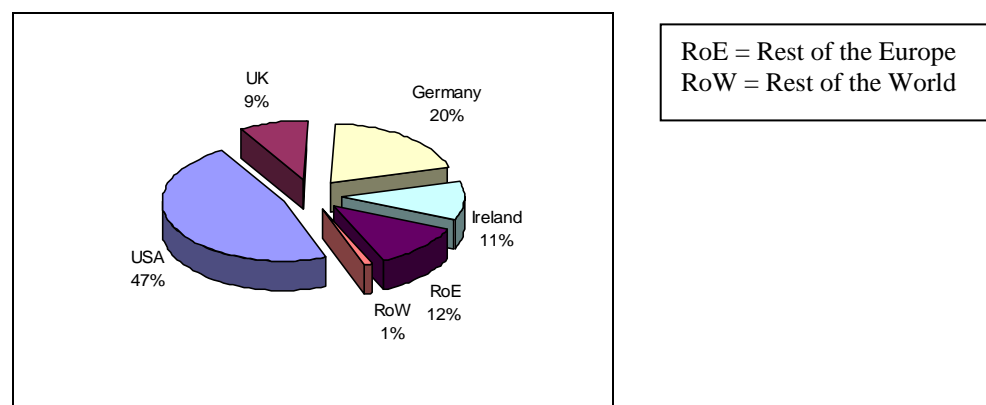


(Source: CIA World Factbook 2004)

The Shannon free zone has five key business clusters: Engineering, ICT/Software, Internationally Traded Services, Aviation and Logistics/Distribution (<http://www.shannonireland.com>). The main businesses of the Engineering cluster companies are sub-contract electronic assembling, manufacturing of special equipments for natural resource industry e.g. rock drills, manufacturing of precision forming tools for the metalworking industry, manufacturing of home safety products e.g. smoke alarms, and manufacturing of customised electronic control systems. The companies on ICT/Software cluster supply and manufacture peripherals for pc and telecom equipment such as memory modules and switches, develop software and e-commerce security products and sell and distribute data management software. The International Traded Services cluster include firms, which provide insurance and financial services, leasing, lending, asset management, call centres and third party sales and customer support. Aviation cluster companies offer aircraft maintenance, charter flights, painting and refurbishment of planes and aircraft spare parts distribution. Business activities on Logistics/distribution cluster are focused to freight forwarding, logistics management, procurement of pharmaceutical products, distribution, customisation and marketing of films and clothes and third-party telemarketing. The aim is that these clusters together create synergy and networking opportunities for the companies acting and starting a business in the area.

In Ireland corporate tax is only 12,5 %, which attracts especially companies from the USA. Over 300 big enterprises focusing on electronics have invested in Ireland. Starting from 1980 approx. 40 % of new electronic industry investments from the USA to Europe have been placed in Ireland. For example Intel, Dell, Motorola have production and R&D activities in Ireland. It is estimated that the electronic industry employs over 30.000 people in Ireland and numerous sub-suppliers. Shannon is Ireland's largest cluster of North American investments. As can be seen in Figure 9 companies originating from the USA employ 47 % of the total workforce of Shannon. (Wilen, 2004, p.13)

Figure 9. Employment by origin of the parent company in Shannon



(Source: <http://www.shannonireland.com>)

The government of Ireland has supported business by tax breaks. Information technology, financing and international service companies pay only 10 % corporate tax as well as companies operating in the Shannon free zone. This advantage is about to end and a transition period is set. Companies that were entitled to a tax break in July 1998 will have the advantage till the end of year 2010. The Shannon free zone will have this tax benefit until the end of 2005. (Wilén, 2004, p.19)

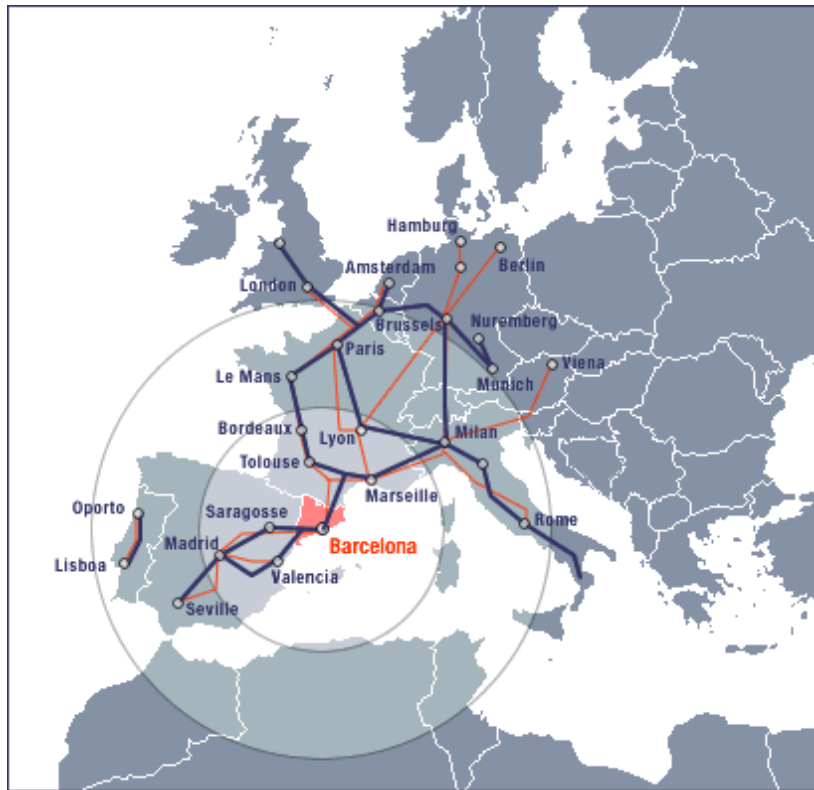
The main reason for the success of the Shannon free zone is not the status of the free zone but the fact that in Ireland the corporate tax rate is only 12,5 % whereas the rate for example in the USA was 35 % in 2004. Low corporate tax rates attract foreign investments and Ireland's strategy is to create a favourable economic and fiscal environment for the companies and support industry. To serve these purposes the Shannon free zone has a built infrastructure with modern facilities and telecommunication. The area offers suitable frames and location for multinational companies seeking to centralise their European wide administration and back office operations. The incentive to place the headquarter or production plant in the area of the Shannon Free Zone is that they can get support towards employment, capital expenditure and R&D. This attracts especially new operators and small and medium size business. Also the fact that Ireland is a member of EMU and there is an English speaking educated labour force easily available effect on the location decisions of international enterprises.

7.1.2. *Zona Franca Barcelona, Spain*

The city of Barcelona is fragmented into many development targets and industrial parks around the city and its neighbourhood. Barcelona has made a strategic decision to develop the city to be a transport and business hub for southern Europe. Because Barcelona has a shortage of commercial real estates the city had to start massive projects to transform old manufacturing areas into district of new technologies. To speed up the development, the city relaxed its strict zoning laws and urban planning codes. It allows higher buildings and mixed commercial and residential developments. This means that warehouses can co-exist with R&D centres, offices, shops and leisure areas. Also investments in the port of Barcelona are already made and the port aim to double its size in the near future. (Crawford, 2001, p.32)

Barcelona has a strategic location by the Mediterranean Sea and near the border of France. It is a natural logistic hub that has effected on the development of the area. The main freight traffic routes from Barcelona to Europe are drawn to Figure no 10.

Figure 10. The main traffic routes from Barcelona to Europe



(Source:<http://www.cidem.com/caalonia/en/catbcn/logistics/index.jsp>)

The original free zone of Barcelona “Zona Franca” was established in 1916 and the Consortium of the Free Zone of Barcelona “El Consorci” was founded to promote, develop and manage the first free zone in Spain. Since those days the zone has grown to become the largest and the most active industry centre in Spain, which produces about 5 % of the region’s GDP. The total size of the area is 600 hectares and there operate ca. 250 companies. It is located next to the port of Barcelona and seven kilometres away from the international airport of Barcelona. It has direct access roads to the ring roads and the network of national and international motorways is easily attainable. Also the main cargo train station in Catalonia is located next to the area. (<http://www.elconsorci.net>)

The main three features of Zona Franca are that it has industrial, logistical and customs activities. Investments have been made to enhance the business of the area. As an industrial free zone it is the centre of the car import and transit in Spain. Nissan, Seat, VW and Fiat have there large automotive assembly plants for value-added logistics activities and distribution centres. Zona Franca operates also as European distribution centre e.g. of Samsung, Sony and Ikea. Three of the world’s largest pharmaceutical companies Boehringer Ingelheim, Bayer and Novartis have built a single European logistics and distribution centre Disalfarm near Barcelona exploiting the benefits and services of Zona Franca. (<http://www.cidem.com/caalonia/en/catbcn/logistics/index.jsp>)

The Logistics Park provides logistical services. It is 40 hectares area designed to be as a rail and container hub and it has also inter-modal road-and-rail transportation services. The investment and project of building the area has been one of the biggest in Spain. The total investment was 150,3 million euros and financed by the El Consorci and Autopistas C.E.S.A. The business object of Autopistas C.E.S.A is the construction, maintenance and operation of motorways and the management of road concessions (<http://www.autopistas.com>).

The business of the Customs Area of Zona Franca is based on the traditional free zone concept. The El Consorci owns all the facilities, which are rented out to the third-party companies like duty-free operators, warehouse owners, customs brokers, forwarding agents, carriers and service companies. Most of the operators are small and medium-size enterprises, which engage in international trade. The location of the Commercial Office of China in the same area influences positively to the volume of cargo from the Far and Middle East. (<http://www.elconsorci.net>)

Zona Franca doesn't have any special tax advantages. The common corporate tax in Spain is 35 % and for non-resident companies the tax is 25 %. For small and medium size enterprises (SME) the corporate tax is 30 %. One of the reasons for established subsidiary in Spain is that Spain is the biggest investor in South America in the EU countries. Spain can operate as a gate to the Latin America market for European companies (Herlin et al., 2004).

All the investments and operations have been financed without subsidies. Financing is organised through rental income and through investment in projects that are meant to be for sale. Private and public sector partners not only share the investment, but also bring their know-how and expertise. The new business idea of the El Consorci is to organise exhibitions and symposiums based on topics of international logistics to support hotels, shops, restaurants and transport of the Barcelona. (http://www.fdimagazine.com/news/fullstory.php/aid/448/What_the_EU_can_do_for_you.html)

The philosophy and the management criteria used both for the long-term strategic development and for the day-to-day operation of El Consorci is to be flexible and adapt constant changes of the business environment. New projects have to be launched and cooperation between the public and private sector is the strategic objective. Technologies and development has to be based on sustainable growth and importance of human knowledge, co-operation with university and private companies must be understood. Projects are managed by using private sector criteria and tools without any subsidies. That is why the El Consorci aims always towards good profitability, economic growth and return on investments the entrepreneurial way. (Rodriguez, 2003)

The success of the free zone in Barcelona depends on the development of the whole Catalonia region. The regional target is to have business and industry group together all their logistics and distribution in a single place, and place these operations in the region of Catalonia. The city of Barcelona, El Consorci and foreign investors have planned and carried out several massive projects for the purpose of improving the business possibilities in the area. The free zone status itself is a minor reason to start the business in the area. Entrepreneurial and logistical reasons are instead essential.

7.1.3. *The Free Port of Trieste, Italy*

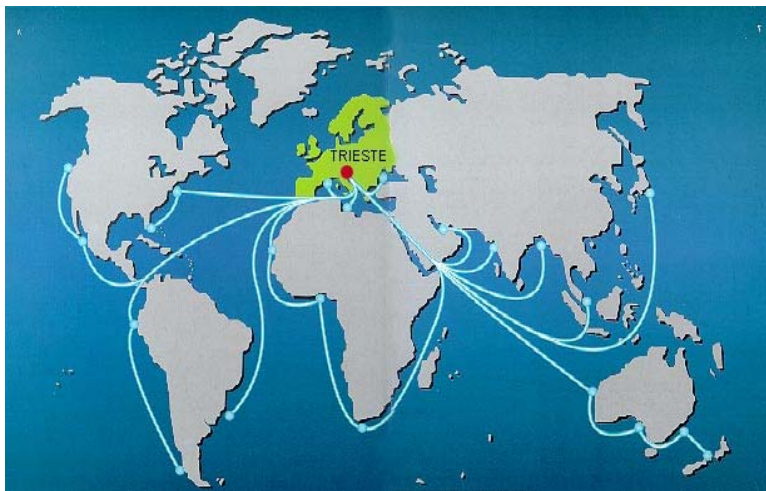
Because of the geographical location of Italy, the sea transportation has been important in import and export trade. Italy has invested heavily in its ports in the last ten years to achieve a decisive position in transit traffic and to be a logistical hub of the Mediterranean. Traditionally Italy has been an export orientated country. According to the statistics of the WTO it is in the seventh position among the countries in international trade. Its competence is mainly based on the flexible and protean small and medium size enterprises. The current corporate tax in Italy is quite high 34 % and the grey economy is a big problem. The biggest barriers against foreign investments are the complexity of the regulation, the ineffective public administration and political instability. The unemployment in Italy was 8,7 % in 2003. (Spiridovitch, 2004)

The Free Port of Trieste was established by the Peace Treaty of Paris on the 10th of February 1947. It is the only free port in the world established by an international treaty. Therefore, according to the Treaty of the European Union article 307 the regulation of EU concerning the free zones and free warehouses is not applied to the Free Port of Trieste. This article 307 (former article 234) states that the regulation of EU doesn't effect agreements between a member state and other country if that agreement is made before the 1st of January 1958 or before the country has joined the EU. If there is a contradiction between the EU regulation and former agreements the member state has to make all efforts to remove the contradiction. (Trampus, 2003)

The overall dock area of Trieste is 230,4 ha of which the free zone is 176,5 hectares. It has a favourable location by the Adriatic Sea as a maritime link along the shipping lines to the Middle East, Far East, Australia and New Zealand through the Suez Canal and to America and Africa via the Mediterranean. The shipping routes are described in Figure 11. The road and rail connections are also well organised to serve especially transit traffic. Because the distances between Trieste and Middle Europe cities are much shorter than routes from northern European ports, the transit traffic of the Middle and South Europe flows mainly through Trieste. E.g. the distance between Budapest and Trieste is 616 km where from northern European ports the distance to Budapest is

nearly 1400 kilometres. The Free Port of Trieste is divided into five different areas. Three of them are allocated to commercial activities and two to industrial activities. Trieste's speciality is the Transalpine Pipeline Terminal from where 50 tons of oil per year is pumped to Austria, Germany and the Czech Republic. Most of the enterprises doing business in the area are concentrated into shipping and forwarding. Ship suppliers supply duty free goods, supplies for deck, cabins, engines, clothing, charts etc. (<http://www.porto.trieste.it>)

Figure 11. The routes and location of Trieste



(Source: <http://www.porto.trieste.it>)

The main advantages of Trieste are connected to customs regulations and the concessions on customs duties. Goods arriving by sea are freely accepted within the free port area regardless of origin, destination or nature and are duty free as long as they remain inside the free port area. For goods imported into the EU through the free port the payment of customs duties and fiscal border duties can be postponed up to six months at a low interest rate. The free port offers freedom of transit to all international trade and storage time is unlimited. Permitted activities are industrial processing, manufacturing, examining, sorting, packing and unpacking. Also a simplified customs procedure for transit traffic by road and rail is applied. (Trampus, 2003, p.16)

The business of Trieste free port is based on international trade, warehousing and transit traffic, which are basic functions of a free zone. So far the speciality of Trieste has been the possibility to give more favourable conditions than elsewhere in the EU according to the Peace Treaty of 1947. But most likely the harmonising of the zones in the area of the EU will include also Trieste in the future if its existing regulation contradicts to the EU legislation substantially.

7.1.4. *Jebel Ali Free Zone, Dubai, United Arab Emirates*

The overall area of Jebel Ali Free Zone is 100 km². It is built around the largest man-made port in the world. Over 2200 companies from ca. 100 countries are operating there. Some 28 % of the companies come from the Asia Pacific region, 35 % from the GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE) and Middle East, 27 % from Europe and the rest from the American continent and others. When Jebel Ali Free Zone was established 1985, the Government of Dubai determined that the zone should have the same importance as every other major project in the country. Because 80 % of Dubai's economy is depending on trade, the Jebel Ali Free Zone represents the positive pro-business attitude of Dubai. Major investments have been made in the free zone's infrastructure and to the latest information technology. Jebel Ali was also the first free zone in the world, which got an ISO 9002 certification. It has representatives and offices around the world to serve its clients and to get new customers. (<http://www.jafza.co.ae/frame-aj.htm>)

Jebel Ali was the first established free zone in the country. Because of its business success new free zones were born rapidly and now there are 15 free zones in function in the United Arab Emirates (UAE). Free zones in Arab Emirates are concentrated on different branches so the prices and services vary a lot but basically all zones offer same kind of incentives to companies. The corporate and income tax rate is 0 %. The foreign ownership can be 100 % for companies operating in the free zone, otherwise it is limited to a maximum of 49 % and the local partner owns 51 %. Foreign companies have full repatriation rights. Periods of lease can be very long, up to 50 years. Normally establishment of a foreign enterprise into Arab Emirates is difficult and very bureaucratic but establishment in the free zone area is much easier and quicker. Free zones offer also help and service on immigration and recruitment matters. For example every foreigner living in a country must have a local guarantor (sponsor). Without a guarantor the foreigner can't e.g. open a bank account, get a driving licence or have a mobile phone. Other benefits for companies operating in the Arab Emirates are that criminality is almost non-existent and strikes and trade unionism are illegal. To start a business in the free zone the companies buy a licence that authorises them to practice business. Licences are normally divided into three main groups: trading, industrial and service licence. (Lieppinen 2002, pp.1-6)

Dubai is the world's 3rd largest export and re-export centre after Hong Kong and Singapore. It is the centre of transit traffic for Persian Gulf countries. Zero level tax rates, low import customs duties (4 %), no accounting obligation and legislation biased to foreigners guarantee also the success of the free zone. The investments in infrastructure and services at Jebel Ali have been lucrative to the Emirate of Dubai. When speaking of the free trade without barriers Jebel Ali Free Zone can be considered to be one of the rare places where it has come true.

7.1.5. *Hong Kong, China*

There is no doubt that Hong Kong is the world's free trade centre and a meeting point of east and west between the time zones of America and Europe. The trade regulation on the area of Hong Kong is very liberalised and the free port of Hong Kong is a just a part of that freedom. Hong Kong has been rated to be the freest economy in the world by The Heritage Foundation and Fraser Institute of Canada. Market, trade and entrepreneurship are free for all, companies have full repatriation right of profits, there is no foreign exchange controls, no restrictions on investments inward or outward and no customs duties on general imports except on tobacco, alcohol and hydrocarbon oil. Also the taxation is very low compared to Europe and USA. There is no capital gains tax and VAT in Hong Kong at all. Tax from profit is 17,5 % and income tax is 16 % on all salary income. (<http://www.investhk.gov.hk/>)

Hong Kong became a special administrative region (SAR) of China on the 1st of July 1997, when the lease with the United Kingdom ended. It was agreed that China's socialist economic system would not be imposed on Hong Kong and that Hong Kong would enjoy a high degree of autonomy in all matters except foreign and defense affairs for the following next 50 years. This means that the border line with customs barriers will remain until 2047 between Hong Kong and China. The map of the territory of Hong Kong and the borderline with China is shown in Figure 12. (<http://www.cia.gov/cia/publications/factbook/geos/hk.html>)

Figure 12. Hong Kong territories and border line with China



(Source: <http://www.cia.gov/cia/publications/factbook/geos/hk.html>)

Hong Kong is one of the districts of the Pearl River Delta free economic zone. The Greater Pearl River Delta zone consists of ten southern provinces of China: Hong Kong, Macao, Guangzhou, Shenzhen, Dongguan, Foshan, Huizhou, Jiangmen, Zhongshan and Zhaoqing. The provinces provide mainly the production and manufacturing and Hong Kong provides the business services. (<http://www.investhk.gov.hk/>)

To ease the trade between the mainland and Hong Kong and because the economy of China is fast-growing, Hong Kong and China made a free trade agreement “Closer Economic Partnership Arrangement between Hong Kong and the Chinese mainland” (CEPA) that came effective on the 1st of January 2004. CEPA fulfils the requirements of the WTO to free trade agreements and it even exceeds China’s WTO commitments. Officially China became a member of WTO in December 2001. Hong Kong is one of the founder members of WTO, established in 1995. According to the regulation of WTO (Article 24 of GATT and Article 5 of GATS) member countries may enter into free trade agreements among themselves to reduce trade barriers in products and services if these agreements don’t create greater trade barriers with other WTO members. (<http://www.tdctrade.com/alert/cba-e0112.htm>)

CEPA improves Hong Kong’s position as a competitive manufacturing centre for high-value goods, especially those with strong design content or valuable trademarks. Hong Kong’s strict intellectual property legislation and strong service sectors support the manufacture and distribution of goods. Using Hong Kong’s free port system raw materials or semi-made products can be imported into Hong Kong tariff free. Value-added logistics in Hong Kong can be assembly or upgrading, design, manufacturing and intellectual property protection of the goods. Goods can then be exported tariff free to hinterland China for further mass production or for China-wide distribution or re-export. For foreign companies it is possible to invest in Hong Kong’s production lines or outsource the value-added logistics. (Hong Kong Trade Development Council, 2003, p.6)

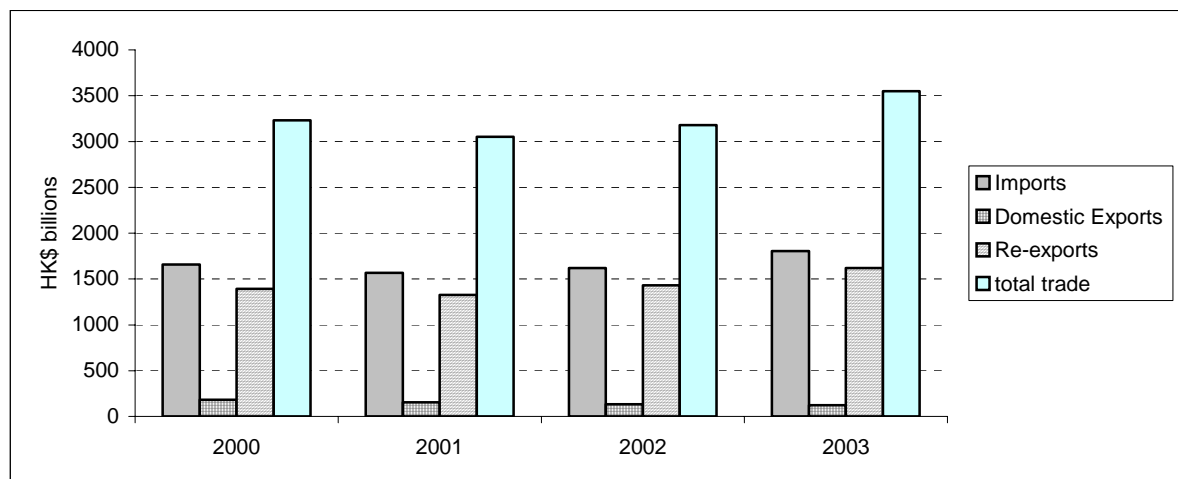
According to the CEPA 273 types (approx. 90 % of all types) of products made in Hong Kong can be exported to the mainland free of tariff. A product is qualified as "made in Hong Kong" if it fulfils the rules of origin set by the CEPA. According to the CEPA “specific manufacturing process, change in tariff heading or 30 % value-added” are diverse requirements for goods being considered as “made in Hong Kong”. The immediate benefit of the trade in goods is the saving in tariffs. This increases the price competitiveness of Hong Kong's domestic exports of consumer products into the mainland. The longer-term effect of the CEPA agreement is the potential for attracting more high value-added manufacturing activities to Hong Kong and boosting development of brand products to middle-class consumers on the mainland. Benefiting the advantage of Hong Kong in intellectual property rights protection, free trade and investment

environment, and reputation in international design, Hong Kong encourages high intellectual property value industries, which target on the mainland market. For high-end products and industries involving proprietary technology, production in Hong Kong may still be profitable. However, since the high intellectual property value industries are knowledge-based and would not be massive in scale, the effect of employment in Hong Kong, especially for unskilled workers, is not very good. (<http://www.tdctrade.com/econforum/tdc/tdc031002.htm>)

During the last 25 years the industry structure of Hong Kong has changed sharply. Nowadays 85 % of Hong Kong's GDP comes from the service sector since the basic industry has moved its production plants to China because of the cheaper labour. Unemployment has grown fast in Hong Kong after the crises of Asia in 1998 and Hong Kong's joining with China in 1997. According to the CIA World Factbook, in 2003 the unemployment rate was 7,9 %. The management, sales and marketing of companies are led by Hong Kong but the production is centered elsewhere. (Nuutinen, 2004, p.4)

Most of the Hong Kong's export is transit traffic. In 2003, 93 % of total export was transit traffic. Capital goods, consumer goods, raw materials and semi-manufactures are the largest categories re-exported. Hong Kong's position as a gateway to the Chinese market is weakening, since China is opening its foreign trade by a new law taking effect on the 1st of July 2004, and because of higher costs comparing to the mainland ports in southern China on the free economic zone, Pearl River Delta. Still, over 75 % of the world's consumer product buyers source China-made products through Hong Kong traders, because of the proximity of the mainland factories and independent legal system. The total trade, import and re-export in Hong Kong is still increasing as can be seen from Figure 13. In 2003 the total trade was 3548 billion HK\$, the growth from 2002 was over 11 %. (http://www.info.gov.hk/censtatd/eng/hkstat/hkinf/ext_trade_index.html)

Figure 13. The development of trade in Hong Kong 2000-2003



(Source: Hong Kong Census and Statistics)

Hong Kong's reputation as a financial centre, liberal policy towards investments, low level of corruption of authorities and high living standard will obviously attract international companies also in the future. The service sector is growing strongly and the success of Hong Kong depends on how obtaining a skilled labour force. But, if the price differences in labour and port fees between Hong Kong and other areas of Pearl River Delta stay high, it is likely that the port functions in Hong Kong will decrease and unemployment among "blue collar" workers increase.

7.1.6. *Kaliningrad, Russia*

Kaliningrad Oblast of Russia is a small (15.100 km³) area situated on the Baltic coastline between Lithuania and Poland. It is the only region of the federation unattached to the Russian mainland being separated by over three hundred kilometres from Russian's western border by Poland and Lithuania and Belarus as can be seen in Figure 14. It was part of Germany (East Prussia, Königsberg) until it was annexed into the Soviet Union in 1945 after World War II and it became a closed military base of the Soviet Union. (Moses, 2004)

Figure 14. The location of Kaliningrad between Poland and Lithuania



(Source: http://europa.eu.int/comm/external_relations/north_dim/kalin/map.gif)

After the collapse of the Soviet Union, Baltic countries achieved sovereignty. Kaliningrad stayed as a part of Russia, but this closed region opened its borders to foreign investors. In 1991 the Russian federal government granted the special economic zone status into this area with a unique geographical location. Some SMEs from neighbouring countries as well as some multinational enterprises started to show interest in establishing business activities in Kaliningrad. France Telekom established a joint enterprise to develop a telephone network in Kaliningrad, AGA Ab

started “Avtogen” in the manufacturing of industrial gases, Noell company from Germany began crane production “Baltkran”, and many joint enterprises in the food sector by Polish companies were established. (http://www.economicmonitoring.com/data/reports/kaliningrad_May_2004_ENG.pdf)

The history of Kaliningrad special economic zone has been unstable because there has been no common law of establishing free or special economic zones in Russia. The region’s free zone status has depended on how good the region has maintained relations with the federal government and Russian President. In 1995 former Russian President Yeltsin revoked all the special custom-free economic zones in Russia but after a few months in January 1996 he restored the Kaliningrad region’s special status. As a conclusion the Federal Law “On the Special Economic Zone in the Kaliningrad Region” came into force in 1996. (Moses, 2004)

That law defined the legal and economic basis of development and functioning of the special economic zone in Kaliningrad. The law points out that the right to land tenure for foreigners and international organisations is given exclusively on the basis of the lease contracts without the right of redemption. Secondly, the law states that the goods are treated as produced in Kaliningrad if the locally made added value is over 30 % of its contents. In electronic devices and complex consumer electronics the equivalent figure is 15 %. In addition, the processing should cause change in the customs classification of the commodity code. Thirdly, the law guarantees privileged conditions for relocation and settlement of to former citizens of the USSR, who live in Lithuania, Latvia and Estonia and whose native language is Russian. (http://www.gov.kaliningrad.ru/en_sez.php3)

The unique location of Kaliningrad has several disadvantages. After the EU enlargement on the 1st of May 2004, when Lithuania and Poland became full members of the European Union, many negotiations of the Kaliningrad’s position as an enclave inside the EU’s territory have taken place between Russia and the European Union. The EU eastward enlargement creates a problem in the sphere of the transportation, customs and energy. The transit traffic through Lithuania and its customs clearance increase transport costs and delay goods. The visa regime complicates the travelling of private persons between Kaliningrad and Russia.

So far the negotiations have not solved the problems. Moscow has not expressed its plans for the future role of Kaliningrad and the EU lacks common interest. At the same time there are country-specific interests for Germany, Poland and Lithuania. The policy of the EU is harmonising the customs rules and therefore the exceptions for some countries will be unlikely. It is also obvious that Russia will defend its national interests. As President Putin has said “we want to develop our

relations with the EU and we hail its extension as our major trade and economic partner, we expect that this extension will deepen our cooperation with European partners, at the same time we shall never accept any decisions that will disrupt the sovereign Russian territory while any special regime for Kaliningrad will undoubtedly do precisely this". By this Putin meant that if any benefits will be granted to Kaliningrad and its citizens, the same benefits have to be applied to the whole Russia. (Kortunov, 2003)

Despite of the status of the special economic zone, Kaliningrad has been one of the poorest and depressed areas of Russia and Europe. According to Moses (2004), it embodies everything that has gone wrong for Russia since the collapse of the Soviet Union. The political uncertainty, the economic dependency on the surrounding area, social problems, corruption of authorities and criminality, have been on a much higher level in Kaliningrad than in Russia. The economy and society of Kaliningrad have been run by politicians and the business elite, with links to organised crime. Its citizens have been dependent on smuggling of alcohol, cigarettes and drugs.

Even though Kaliningrad has had a bad reputation, it attracts foreign investors because of its special location as the most western part of Russia. The distance from Kaliningrad to Moscow is 1200 km, but to Berlin only 600 km. The attraction grew after the year 2000, when the new Governor of Kaliningrad Vladimir Egerov was elected. His new administration style was to spread a positive image among foreign investors. (<http://www.gov.kaliningrad.ru/en sez.php3>)

Table 8 indicates the changes in industrial production in Russia and Kaliningrad. In 2003, the industrial production of Kaliningrad grew 14,5 %, while the growth in the whole of Russia was 7 %. Machine-building and the metal industry in Kaliningrad have quadrupled their sales in the past five years. Fast-growing enterprises have been able to use the advantages of the special economic zone. The two largest of enterprises are Autotor and Telebalt. Autotor has joint production and car assembly (BMW and KIA), Telebalt manufacturers TV sets and vacuum cleaners with the Lithuanian partners. (http://www.economicmonitoring.com/data/reports/Kaliningrad_May_2004_ENG.pdf)

Table 8. Changes in the industrial production in Kaliningrad and Russia, annual growth rates (%)

	2000	2001	2002	2003
Kaliningrad,	32,4	12,9	10,2	14,5
Russia,	11,9	4,9	3,7	7,0

(Source: http://www.economicmonitoring.com/data/reports/Kaliningrad_May_2004_ENG.pdf)

Successful companies in Kaliningrad aim to limit their presence and operate in alliance with Russian partners who share the responsibility of investment and take care of relations with authorities. The foreign company supplies raw materials and assembly kits, provides support in sales and marketing and gives technical assistance in the production process. The Russian partner has the benefits of the free zone regime. Companies investing directly in the region have to have experience and know the region well. Thus, the main investors are coming from neighbouring countries: Poland, Lithuania and Germany. The main incentive is the access to the Russian market without paying customs duties. In February 2004, there were 2225 companies with a foreign capital registered in Kaliningrad. (Pridhodko, 2004)

The future of the special economic zone of Kaliningrad is under question. There is a new legislation proposal called the Shuvalov's Commissions proposal that has caused uncertainty among foreign investors and companies. If the law proposal is adopted, it will affect negatively the position of the SME sector in Kaliningrad. Therefore, it is heavily criticised in the Kaliningrad Oblast. The main changes compared to the existing legislation from the year 1996 are that 1) customs advantages in the special economic zone will be eliminated within 10 years 2) a special tax regime will be applied only to companies investing at least 10 million Euros in Kaliningrad 3) the tax on transactions with securities will be 0 % and 4) administrative procedures for investors and entrepreneurs will be streamlined. (Usanov, 2004 and Pridhodko, 2004) The aim of this legislation is to accelerate the region's development as a pilot region for Russia-Europe integration and attaining living standards that would match the current living standards of the EU.

As mentioned above, Russia aims to obtain WTO membership. The Russian side points out that the new legislation on Kaliningrad is in compliance with WTO norms. However, it might be that the Russian state is willing to increase its customs revenue by changing the Kaliningrad rules. If Shuvalov's Commissions proposal is approved without changes, the tax breaks to be given to big investors only pose a disincentive to SMEs investing in Kaliningrad.

7.1.7. McAllen Foreign Trade Zone, USA

The McAllen Foreign Trade Zone is over 300 hectares industry area on the southwest side of the city of McAllen. The city is located in Texas, by the river Rio Grande on the cross border area of USA and Mexico. The zone is part of the larger development area known as the McAllen CrossPort. It has an international airport, McAllen Foreign Trade Zone, two international bridges with a third bridge under construction over the river Rio Grande, rail and freight outlets, free land and building options in its area. The technology centre assists in product design and development. Manufacturing, distribution and other businesses use also facilities in the city of McAllen.

Sharyland Business Park, which is owned and operated by a separate corporation, Hunt/Woodbine Development, operates in the same area. (<http://www.medic.org/whatis.shtml>)

The zone is managed by McAllen Economic Development Corporation (MEDC). It is a non-profit corporation under contract with the City of McAllen. Its purpose is to create jobs for McAllen by attracting new industry and helping existing companies to expand. MEDC consists of a Board of Directors and Officers. The Board of Directors is made up of manufacturers, bankers, attorneys, business executives, owners of small businesses and city officials who oversee the activities of the MEDC. The Officers are responsible for the day-to-day operations of the MEDC. MEDC's customers represent suppliers and manufacturers looking for a site to expand or relocate their plant or service operation. (<http://www.medic.org/whatis.shtml>)

The value of products moving in and out of the McAllen Foreign Trade Zone annually is about 1,3 billion dollars. Companies like Panasonic, Siemens, and Alps Automotive produce, assemble, manufacture, package, process, label, grade, test, repair, warehouse and/or re-export foreign items in the zone.. NAFTA allows materials and components from foreign sources to be brought into the zone duty free. Once in the zone, these foreign goods may undergo a tariff shift through assembly or processing, and become originating goods under the "rules of origin" provisions of NAFTA. Customs tariffs have not yet been completely eliminated between countries under NAFTA. The elimination process is estimated to end by 2008. (<http://www.medic.org/whatis.shtml>)

Labour availability and cost, strategic location for distribution, turn-key operations and land availability have promoted companies around the world to view Mexico as an attractive alternative in their relocation decision-making. The volume of business in McAllen is due primarily to the companies located the other side of the border nearby in the city of Reynosa, Mexico. Many of them have established offices in McAllen, USA. Almost all of them have key employees who live on the USA side of the USA/Mexico border. Thus, this location decision creates a win-win situation for both Reynosa and McAllen. (<http://www.medic.org/whatis.shtml>)

McAllen offers labour that is bilingual and bicultural, and that understands the needs of companies wanting to do business in Mexico and South America. Texas has one of the USA's highest concentrations of Hispanics with over 25 % of the state population. Growth figures compiled by the Texas Comptroller of Public Accounts, the U.S. Census Bureau and Texas A&M University project show that by the year 2015, 38 % of the population in Texas will be Hispanic. The cities of McAllen and Reynosa are divided only by an international border, not cultural or language borders. (<http://www.medic.org/whatis.shtml>)

McAllen benefits its location as a border town. Companies on both sides of the border have formed strategic alliances in order to gain success in their businesses. Mexican companies have the labour-intensive assembling and manufacturing. The coordination and management and trade related services such as distribution is taken care of on the other side of the border. Good relationships between the companies in the cross border area, simple border crossing formalities and possibility to import to the McAllen free zone area without any customs formalities are the key success factors.

7.1.8. Lappeenranta Free Zone Ltd and the Free Port of Finland Oy

The Lappeenranta Free Zone Ltd. was established in 1970 to enhance freight traffic between Finland and the former Soviet Union. The operation started by establishing Konela's car import centre in Raippo. The development of the logistic centre in Mustola began on 1987. Now, there are approx. 450 employees and over 20 companies operating in the area. The zone has 25 hectares of duty-free storage space containing covered storage, production and office space. The zone has reserved a new area of 18 hectares for future expansion development. Mustola has an inland port with connections from Lake Saimaa through the canal to the Baltic Sea and to the river network of Russia. Especially important is the railway connections with the same rail gauge as used in Russia (<http://www.lappeenranta.fi/freezone/english/index.htm>)

The Lappeenranta Free zone is located on the cross border area of South-East Finland and South-West Russia. Three border crossing points, Nuijamaa, Vainikkala and Pelkola are located less than 40 kilometers from Mustola. The crossing points and their locations are described in Figure 15.

Figure 15. Border crossing points near the Lappeenranta free zone.



(Modified from: <http://www.ekarjala.fi/ekliitto/englanti/eng.htm>)

The Transsiberian railway (TSR) is a transport route from the Far East to Finland and some other parts of Europe. Mostly consumer goods and electronics are transited via the TSR from China, Korea and Japan to Finland for storage and handling and returning back to Russia for distribution by road or rail. The route of the TSR and distances from Vainikkala border crossing point are described in Figure 16. In 2003 Lappeenranta had a 16 % share of this transit traffic. Recently Finnish paper and metal industries have increased their export via the TSR to the Far East instead of shipping it. (Kilpeläinen, 2004)

Figure 16. The TSR route from the Far East to Finland.



Source: <http://www.lappeenranta.fi/freezone/english/tsr.htm>

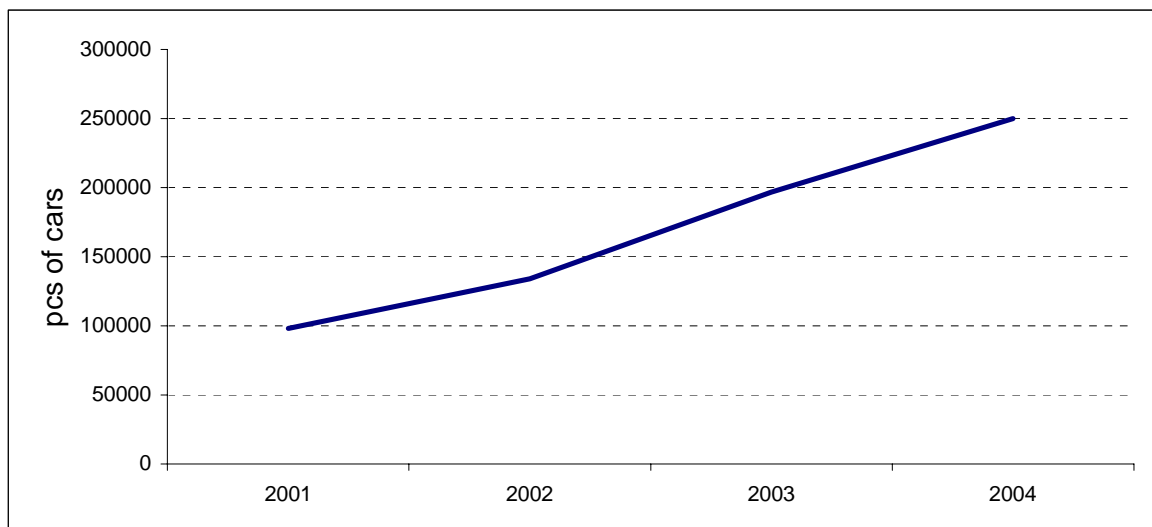
The Lappeenranta Free Zone Ltd. is 100 % owned by the city of Lappeenranta. The business idea of the Lappeenranta Free Zone is to offer free zone services to Finnish and foreign companies by taking advantage of its location on the EU's Russian border. It is an alternative for Russian enterprises interested in entering the European market. The Lappeenranta Free Zone Ltd. provides production and storage facilities to its customers, for rent or for sale. They assist customer companies in obtaining official documents and certificates and finding subcontractors and partners. Recruitment services are also on offer. The business concentrates on VAL storage and warehousing activities. Most of the zone's customers are forwarding agencies. The advantages of the Lappeenranta Free Zone are the location of the Customs office, functional infrastructure, reliability and security. Free Zone employees have unique knowledge and experience of East – West trade.

The Free Port of Finland operates in the port of Hanko. Hanko is located in the southernmost cape of Finland. Due to the southerly location, the harbour is free of ice for most of the year and is easily approached from the Baltic Sea. It offers the fastest shipping connections for cargo and passengers between Finland and Continental Europe. The Free Port of Finland is owned by private companies, which are at the same time its biggest customers. The port and land areas are owned by the city of Hanko who have rented the area to a free port company. Hanko can be considered to be the car import centre of Finland. In addition, the company has office and storage space for rent. The company owns trucks and other machinery and sells services connected to them. The

customers of the free port are car importers and freight forwarders, who take care of the cleaning and maintenance of the cars before they are loaded in to the trucks and transported to distributors. It is calculated that this VAL service of new cars employs approx. 500 people in Hanko.

The trade of cars from western countries to Russia is good news for Hanko. The free port concept serves well the needs of the international car companies. Car manufacturers don't keep big buffer stocks. They storage cars temporarily in Hanko for the time which takes from unloading of vessels to the load of leaving car transport trucks. There are more incoming cars daily than trucks can load and transit further. This means that on average, the lead time of 35.000 - 40.000 cars is ca. 2-3 weeks. During the last two years the Free Port of Hanko has grown to be a leading gateway to Russia for western car industry. The development of car importing can be seen in Figure 17. Nearly five hundred fully loaded trucks with new western cars leave from Hanko to Russia weekly. The car import through the Free Port of Hanko was ca.200 000 cars in 2003. From that the transit traffic of new cars to Russia was 86 000 cars and the import to Finland was 114 000 new cars. In 2004, the transit of new cars to Russia was estimated to be over 100 000 cars. Thus, approximately half of the incoming cars are transited to Russia. (Ryky, 2004, Sinervä, 2004)

Figure 17. The increase of car importing in Hanko during 2001 - 2004.



Currently, the VAL-service level connected to the transit of cars via Finland to Russia is very low on the Finnish side of the border. The transport of the cars from Hanko to Russia is taken care of almost 100 % by Russian importers and distributors, who do the start-up cleaning and maintenance. The increasing flow of Russian car transportation trucks from Hanko to Russia is visible at the border crossing points in the South East Finland and on highway 6. The business of this traffic consists of fairway fees, rental income and employment of port workers in Hanko. The

Port of Kotka aspires also the transit of cars to Russia and it has increased its share in this business.

7.2. Analysis of the studied free zones

Free zone case studies covered in the previous chapters, indicate that there is no universal model applicable everywhere.

Shannon and Barcelona are industrial free zones. Manufacturing and sub-contracting, such as assembling and refining, are the major functions. However, the basis of operation of these two zones differs, although both zones target on regional development and job creation. The success of Shannon is promoted by very low corporate tax that attracts multinational companies and investors. The operations in Barcelona are based on entrepreneurship. Both zones have gained success, but in the long run, the business based on true entrepreneurship as the El Consorci has stated, can be considered to be more sustainable, than a business relying on tax breaks or other subsidies. Barcelona operates also as a logistic hub to the European market.

Trieste relies on traditional free port functions. It has a long history as a free port and has still a special position in the EU legislation. The strength of Trieste is its location and function as a logistic hub. The business in the Trieste free port is concentrated on the distribution and services of the international trade.

Jebel Ali and Hong Kong are active trading centres with very low trade barriers. The corporate taxation level is low or non-existent. The difference between these two free zones is that Jebel Ali is quite “new” and a “man-made” trading centre compared to Hong Kong. The position of Hong Kong is based on its long history as a British colony. Another difference is the strict Islamic culture in the UAE. Establishing business activities with Arab Emirates without a free zone concept can be overwhelming to western companies. Trade unionism is illegal in the UAE, which allows flexibility in labour management, but can influence negatively working conditions and employees motivation. Hong Kong and Jebel Ali have invested heavily in the infrastructure, especially in the information technology. Transit traffic, export and import are the main functions offering knowledge-based work to experts. Trade related services are continuously increasing.

The main functions of Kaliningrad is manufacturing and assembling. Kaliningrad is an import orientated regional free zone aiming at attracting foreign investors interested in entering the Russian market via Kaliningrad. The infrastructure level is low and concentrated on factory and

warehouse facilities. The position of Kaliningrad is unstable due to political reasons. Operating in Kaliningrad contains rather high risks.

The functions of McAllen concentrate on services and trade. The manufacturing and assembly industry are mainly located on the other side of the border, in Mexico. McAllen provides warehousing, distribution, transport and coordination of the trade of the goods.

The two Finnish free zones, Lappeenranta and Hanko, concentrate on VAL-services, storing and other trade related services e.g. for transit traffic. Virtually, they have no manufacturing and assembling functions. The transit traffic to Russia has a clear boosting influence on their business.

8. Cross border zone of South East Finland: points to consider

The border between Russia and Finland is special in many ways. Russia looks forward to increase its activities of external trade and aims to maximise self-sufficiency. This can be seen clearly in the new Russian traffic strategy. Russia will increase the service level of logistics by using its own routes instead of transport corridors. A significant part of the Russian budget comes from border crossing traffic.

So far, Russia has not joined any economic alliances and is not even a member of the WTO. Thus, Russia can unilaterally decide e.g. the level of customs tariffs. The negotiations between Russia and the WTO have brought up several questions about the external trade regimes and e.g. the double tariff system of Russian railways. The new customs codex of Russia is the first apparent step towards membership with the WTO and western customs regime.

The economic structure of Russia is changing slowly. Production of high value added products progress gradually. The overall investment rate will stay low for a long time. Therefore, import of valuable consumer goods will continue for several years.

8.1. Strengths and requirements

The South East Finland, has several strengths in competition: proximity of the Russian border, well functioning infrastructure (ports, railways, container terminals), availability of skilled labour, education (university, polytechnics), high technology level, security, knowledge and long experience in Russian trade.

To complete complex border-crossing logistical processes, cross-organisational coordination, common goals and policies among logistical service providers, port authorities, customs authorities and free zone authorities is needed. In the South East Finland there have been efforts to strengthen the co-operation between different operators. One example of this is the Straightway association, which was established by several logistical south eastern operators and cities to promote and market logistical services in the area collectively. However, true co-operation is still at a very low level. To improve the total efficiency of the Finnish route, different parties must form closer relationships, specialise and network.

Finnish and Russian customs have made efforts to improve the border crossing. However, there are times, when truck queues are many kilometres long and the border crossing time is several

days. “Green lines” in the border crossing points and Electronic Customs Declaration Systems have improved the situation, but they serve best importers/exporters, whose trucks are loaded with goods with one or two tariff numbers. Trucks with parcelled goods with many tariff numbers face waiting-time. Often queues at the border are due to sudden changes in the regulations at Russian customs, which are not foreseeable. Information on changes and new regimes are not crossing the border in a coherent manner. Speeding up and smoothening out of the border crossing is one of the most important tasks that should be done, in order to fulfil the requirement of reliable just-on-time delivery and to reduce overall lead times.

The operators of free zones are the authorities and owners managing the zone infrastructure. Zone users are entrepreneurs engaging in their business. The business can be manufacturing from raw materials, assembling and refining or providing services like VAL-services, financing, consulting etc. If a zone can provide suitable circumstances, the business will be successful.

The optimal business model of a free zone in South East Finland ought to contain the following aspects:

- The free zone area cannot be restricted to one city, because the existing infrastructure is dispersed in many places to a region in South East Finland. The zone concept can consist on several satellites e.g. ports of Kotka and Hamina. Each satellite can concentrate on different business areas and manage their operations independently. The idea is networking and not competing against each other.
- The administration and coordination could be arranged by an umbrella organisation owned by the operators. The task of the umbrella organisation should represent the interests of the “Cross Border Zone of South East Finland” in one entity trying to attract customers, private funding and FDI.
- The customs control could be arranged by a Control type II regime, allowed by the Customs Code. The free zone must not necessarily be a fenced enclave. The control ought to be based on the customs warehousing procedure.
- Regional subsidies or any privileged tax regime in a special economic zone of South East Finland are against the rules of the EU and WTO. Skilled labour is expensive in Finland, and thus, labour cost savings could be achieved by creating strategic alliances and partnering with Russian companies. Cheap labour is an attraction in

Kaliningrad. The labour-intensive manufacturing and assembling could be relocated e.g. in Svetogorsk or elsewhere on the other side of the border. The co-ordination of distribution, consulting, banking etc. could be conducted on the Finnish side of the border.

- The transit traffic via Finland to Russia in its present form contains plenty of uncertainties. Therefore, it is risky to base the functions of the zone only on eastbound transport. The zone could operate also as a gateway for westbound traffic e.g. of semi-finished products from the Far East or Russia to European customers. Companies are transforming their supply chains towards responsiveness, which can open new entrepreneurship e.g. among e-business, synchronised scheduling with final demand and quick response.

Free zone case studies above show features, which probably could be copied in South East Finland. The zone should have several business clusters, which can create synergy and networking opportunities for the companies. Modern infrastructure, office space and IT are needed for administration and back office operations. Local civil servants should be flexible and support the building of infrastructure by granting building permits and by participating in the planning. Co-operation between the public and private sector is essential.

Potential businesses that could be engaged in the free zone of South East Finland are e.g.:

- VAL- services (warehousing, distribution, assembling, tailoring)
- Financial services (banks with flexible opening hours)
- Information services (databanks, licenses and certification, preparing of export/import documents)
- Consulting (for Russian companies consulting services on how to establish business in Finland and for western companies guidance how to operate in the Russian market)
- Accommodation services
- 24 hour service in customs and border crossing activities

Obviously, the core point is to attract innovative entrepreneurs, and to encourage them to become users of the cross border zone. In this context, a successful case is brought up below.

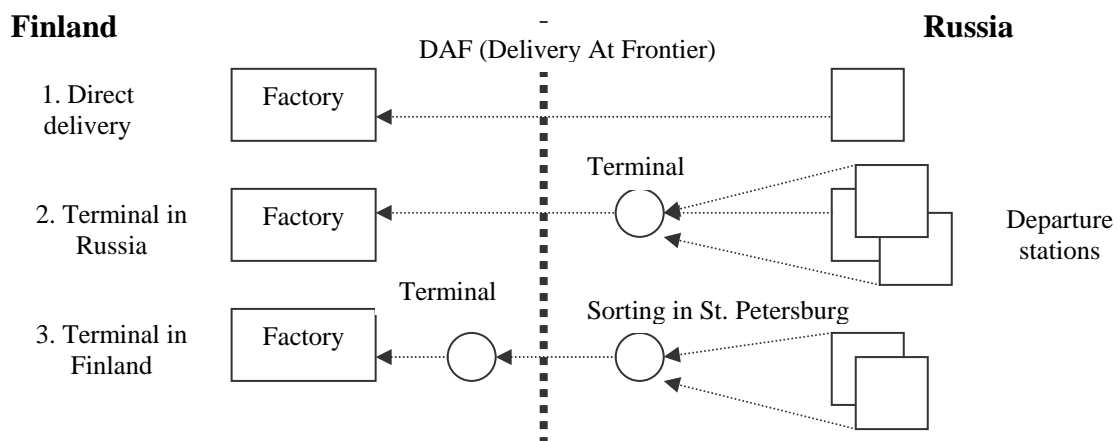
8.2. Case study: Wood import terminal of Pelkola

The wood import terminal of Pelkola has been active since the end of 2001. Import of raw wood from Russia to Finland through the Pelkola border crossing point has grown steadily and is now about 4 million m³. The wood processing industry estimate that the need for raw wood will grow in a few years to 6-7 million cubic metres. According to Finnish Customs (2004), the value of round wood import from Russia was 400 million euros in 2003, which was 11 % of Finnish imports from Russia.

To fulfil effectively the increasing demand of raw wood, Finnish logistic service provider John Nurminen Oy will invest on building a private railway connection from Svetogorsk to Pelkola in 2005. The operating partners of Pelkola terminal are John Nurminen Oy as traffic operator and Kaakon Logistiikkapalvelu Oy taking care of terminal functions. On the Russian side the traffic operator is October Railways.

Currently John Nurminen Oy has three ways to import raw wood from Russia to Finland by railway. The import models are illustrated in Figure 18. About 60 % of wood comes directly from the departure stations of Russia to the Finnish factories in separate wagons or in whole train shipments. The second way is to collect the raw wood at the terminal on the Russian side and from there the raw wood is sent directly to the Finnish paper plants in whole train shipments. Approximately 15 % of the wood is imported this way. The way Pelkola wood terminal operates is the third way. About 25 % of raw wood is transported from the distant departure stations to St. Petersburg for sorting. Then, the sorted wood is transported from St. Petersburg in whole train shipments to Pelkola where it is unloaded and stored. From Pelkola the wood is delivered to factories in smaller shipments by the factory trains of Finnish Railways Ltd.

Figure 18. Wood transport models of John Nurminen Oy from Russia to Finland



(Source: modified from the material of John Nurminen Oy)

Pelkola has six to seven 2,5 km long tracks in its yard. Thus, Pelkola has the ability to receive whole train shipments of ready sorted raw material. It means quicker deliveries and less costs because there is no need to split the train to different tracks. Unloading happens fast, which boosts the effectiveness. Railway wagons are expensive storage places because of the continuous lack of wagons. The whole train shipments speed up the turnover of railway wagons. The sorting centre in St. Petersburg operates effectively. It delivers at least three trains to Pelkola daily. The bottleneck has been at the border crossing point. Pelkola's wood terminal has the capacity to handle six trains per day and operate 24 hours.

The length of the planned new private railway is only a few hundred meters from Svetogorsk rail yard to Pelkola wood terminal, but it will double the amount of handled raw wood. Increasing turnover of round wood storing will save huge amounts of capital. In the long run, John Nurminen Oy plans that Pelkola terminal will operate also as a customs warehouse e.g. for paper product exports to Russia.

The Finnish and Russian Border Guards and customs welcome the plan. It will ease their work and reduce rush times at the border. John Nurminen Oy and October Railways have had a long, trustful, and personal relationship that has contributed to the success. The biggest problem has been the reluctant policy of Finnish railways. However, the influence of this private railway would be positive and add cargo traffic also in the railway net of Finnish Railways. The density of wood deliveries will increase.

There is a double tariff system in operation on railway transports in Russia. Export shipments are more expensive than domestic transportations. Rescission of the system will be a long and difficult process, but the expectation is that domestic prices will increase to the level of export prices. Lowering the export prices to the level of domestic tariffs will cause financial problems to the railway operators in Russia. In addition, the WTO looks negatively on the double tariff system. If Russia wants to be a member of the WTO, the tariff system must be changed.

9. Conclusions

At the turn of the century, world market prices for oil increased considerably. In the early years of the 21st century oil had been expensive, or very expensive. This is good news for Russia, which is one of the main oil exporters of the world.

After the currency crisis of 1998, the Russian economy recovered very rapidly. The most important background factor in this amazing recovery is the high world market price level of energy bearers. Many other commodities, e.g. metals have been in high demand lately, and thus, catching high prices.

Amid the export boom, Russian import has grown fast. High value importables (consumer durables, electronics, cars etc.) are selling at high speed in Russia. In this sphere, imported goods have a high prestige value in the eyes of the Russian consumers. Thus, import-substituting activities in high value-added consumer goods are not as easily created, as in the food and beverage industry.

As a result of the Russian economic boom in the early years of the new decade, the transportation system faces clear bottlenecks. New port facilities have been constructed in a short period of time. Traffic volumes have exploded.

Amid this new economic dynamism, Russia has created a new, official transport strategy, in which it is stipulated that the service balance in the Russian current account ought to be strongly positive in the near future. This strategy presupposes heavy investment into the transport infrastructure linked with foreign trade. The clear aim is to maximise the currency income from the logistics services in the next decades. As other countries on the Baltic Sea shores are eager to get a piece of the growing logistics “cake”, the competition is bound to intensify year by year.

In several international assessments measuring competitiveness, Finland has scored very well lately. On the basis of these studies dealing with an economic environment in different countries it can be maintained that the infrastructure in Finland is in excellent condition and the sophistication of the economy is world class. At the same time, it is clear that in Finland, as in other welfare states in Western Europe, traditional manufacturing industries are not expanding locally. Industrial enterprises seek cost savings via international operations. Finland with a high living standard and high wages is a typical example of a western post-industrial service society with a

high stock of human capital. It is a well-known fact that full employment is not easily achieved in any post-industrial welfare society.

For developing countries the free zone concept is a way to open up and boost their economic development. Free zones are supposed to advance technology, education and welfare. For developed countries, the advantages that the free zone concept traditionally has provided, will fade away. The free zone concept changes from a duty free zone to a hub of technology, knowledge and logistic when the economic development of a host country advances. Companies operating in the free zones are no more primarily looking for tax breaks and cheap labour. The future of every free zone depends highly on its service level, which must correspond to the needs of the customers.

In the long run free zones will not have a competitive advantage via tax breaks and customs duty exceptions. The policy of the EU is to harmonise, not to add unequal regimes among its members, even though it can accept derogations in special cases. The WTO is aiming at free and fair trade globally, with as low trade barriers as possible. Tax holidays and subsidies have become more and more old-fashioned because the state must provide welfare services financed by taxes. Subsidies don't create a sustainable business. If one day the subsidies are denied, the company relying on them will go bankrupt. Sustainable business success can only be achieved by an entrepreneurial way of thinking as Cox (1997, p.190) has stated: "Business success is not doing any particular thing, it is about understanding what should be done to appropriate value under changing circumstances".

In most cases the economic objectives of establishing a zone are boosting SMEs and regional development. Thus, the zone must be an outward oriented network. Companies in inward oriented free zones, purchase their raw materials and supplies from the cheapest source outside the country, utilising facilities offered to them, such as tariff-free imports of raw materials, parts and components. To ensure a positive economic effect on the host-country, firms operating in the zone should have direct contact with domestic firms and backward linkages with local industry e.g. via sub-contracting instead of relying on import-based manufacturing processes.

According to the valid rules, free zones can be established anywhere in the EU customs territory. However, a free zone that crosses the border between an EU member state and a third country is not possible. Thus, Finland can't establish on the border a free zone extended to the territory of Russia. However, a functional solution could be found from a partnership. Thus, it could be possible that the coordination and managing of the supply chain is operated in South East Finland,

while the rough manufacturing procedures are conducted on the Russian side, where the labour costs are cheaper.

Obviously, Finland is not able to increase its market share in increasing transportation business linked with Russian foreign trade. However, business in this sphere is expected to grow so fast that Finland may well get an increasing slide of transit traffic in absolute terms, especially in the VAL-sector. Transit traffic under review in this report causes costs on the Finnish side. Some of these costs are difficult to calculate. For example, Russian trucks bring cargo from Finnish ports to Russian territory, and use in this activity roads in Finland, where the maintenance of the roads are covered by the local public sector, that is, by Finnish tax payers.

Transit traffic naturally generates income in a direct and indirect form in Finland. Indirect income is derived, for example, from Russian truck drivers who eat and shop in Finland. Direct income is linked with wages paid in VAL-service context.

It is suggested above that a free zone covering the South Eastern part of Finland could bring potential benefits to the national economy of Finland. In this context, it is impossible to estimate the potential costs and benefits involved. It is assumed that with proper co-ordination of activities on both sides of the Russian border profitable business activities can be enhanced.

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APPENDICES

Appendix I.

The main differences between control type I and control type II warehouses

Control type I	Control type II
<i>Formalities at the entry of non-Community goods</i>	
<p>No presentation to customs and lodging of a summary declaration if the goods are brought directly by sea or air or – where the free zone adjoins the land frontier - by land.</p> <p>No need to assign to customs approved treatment or use because the goods are covered by the free zone arrangements as a consequence of being brought into the free zone.</p> <p>No requirement to lodge a guarantee.</p>	<p>Presentation to customs and summary declaration is needed.</p> <p>The goods must be assigned a customs-approved treatment or use within 20 or, if carried by sea, 45 days from arrival.</p> <p>A guarantee may be requested.</p>
<i>Formalities at entry of Community goods in the free zone and their exit to EU territory</i>	
<p>The Community status has to be certified in order to avoid that the goods are not considered as non-Community goods.</p>	<p>Certifying of the community status is not needed. General presumption is that the goods in the EU customs territory are deemed to be Community goods.</p>
<i>Authorisation requirements</i>	
<p>The form of stock recording must be approved.</p> <p>The use of customs procedures with economic impact must be authorised.</p> <p>Use of warehouses for storage of food supplies must be approved.</p>	<p>Storage and usual forms of handling must be authorised.</p> <p>The form of stock recording must be approved.</p>

<i>Formalities for stored goods</i>	
Stock recording of both Community and non-Community goods, except goods for transshipment	Stock recording of non-Community goods and goods benefiting from export refunds. Authorised storage. Authorised simplified procedures for transshipment.
<i>Customs debt in case of unlawful removal, loss or unauthorised use/non-compliance</i>	
Loss, consumption and unauthorised use cause customs debt unless disappearance explicable.	Unlawful removal and non-compliance lead to customs debt. Losses derive from the nature of goods, unforeseeable circumstances or force majeure acceptable.
<i>Formalities at the exit of non-Community goods from the EC customs territory</i>	
Prior notification of re-export, except in the case of transshipment	Declaration of re-export

(Verrue, 2003, annex I)

Appendix II.

Legal framework, the legislation of free zones

Common legislation and customs:

1. Council Directive (EEC) No. 69/75 of 4 March 1969 on the harmonisation of legal, regulatory and administrative dispositions for the free zone regime.
2. Council Directive (EEC) No. 71/235 of 21 June 1971 on the harmonisation of the provisions laid down by law, regulation or administrative action relating to the usual forms of handling which may be carried out in customs warehouses and in free zones.
3. Council Regulation (EEC) No. 2504/88 of 25 July 1988 on free zones and free warehouses.
4. Commission Regulation (EEC) No. 2562/90 of 30 July 1990 laying down provisions for the implementation of Council Regulation (EEC) No. 2504/88 on free zones and free warehouses.
5. Council Regulation (EEC) No. 2913/92 of 12 October 1992 establishing the Community Customs Code.
6. Commission Regulation (EEC) No. 2454/93 of 2 July 1993 laying down provisions for the implementation of Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code.
7. Commission Regulation (EC) No. 3665/93 of 21 December 1993 amending Commission Regulation (EEC) No. 2454/93 laying down provisions for the implementation of Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code.
8. Council Regulation (EC) No. 122/96 of 22 January 1996 establishing favourable tariff treatment for imports of certain goods into the free zones of Madeira and the Azores by reason of their end use.
9. Commission Regulation (EC) No. 1482 /97 of 28 July 1997 laying down provisions for the free zone of Madeira for the implementation of Council Regulation (EC) No. 122/96 establishing favourable tariff treatment for imports of certain goods into the free zones of Madeira and the Azores by reason of their end use.
10. Regulation (EC) No. 2700/2000 of the European Parliament and of the Council of 16 November 2000 amending Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code.
11. Commission Regulation (EC) No. 2454/93 of 4 May 2001 laying down provisions for the implementation of implementation of Council Regulation (EEC) No. 2913/92 establishing the Community customs code.

Excise tax legislation:

12. Council Directive 92/12/EEC of 25 February 1992 in the general arrangements for products subject to excise duty and the holding, movement and monitoring of such products, article 5.

VAT legislation:

13. Sixth Council Directive of 17 may 1977 on the harmonization of the laws of the member states relating to turnover taxes – common system of value added tax: uniform basis of assessment, article 16.

(Trampus, 2003. p. 8)