



## Ainazi City Council



## Joint development strategy of Ainazi, Salacgriva and Haademeeste ports



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## Glossary and Abbreviations

Term or abbreviation	Description
BCR	Benefit cost ratio
BSR	Baltic Sea region
CIS	Commonwealth of Independent States
CFP	Common Fisheries Policy
CoML	Cabinet of Ministers of Latvia
DWT	Dead Weight Tonnage
EEK	Estonian kroon, the currency of the Republic of Estonia
ERDF	European Regional Development Fund
ERR	Economic internal rate of return
ESF	European Social Fund
ENPV	Economic net present value
EU	European Union
EUR	Euro, the currency of the European Union
EUROSTAT	Statistical Office of the European Communities
FEE	Foundation for Environmental Education
IBSFC	International Baltic Sea Fishery Commission
INTERREG	Community initiative for promotion of cross-border, international and interregional co-operation
FIFG	Financial Instrument for Fisheries Guidance
FRR	Financial internal rate of return
FNPV	Financial net present value
GDP	Gross domestic product
GT	Gross Tonnage
ha	Hectare(s)
HELCOM	the Baltic Marine Environment Protection Commission
HM	Harbour Master
km	kilometre
m	Metre
LVL	Currency of the Republic of Latvia (lat)
MoEL	Ministry of Economy of Latvia
MoFL	Ministry of Finance of Latvia
MoTL	Ministry of Transport of Latvia
n.a.	Information not available
NATO	North Atlantic Treaty Organization
NLCR	North Livonia Coastal Region
NVBR	Northern Vidzeme Biosphere Reserve
NUTS	Nomenclature of territorial statistical units by EUROSTAT
PPP	Public and private partnership
Project	Project "Working out of joint development strategy for Ainazi, Salacgriva and Haademeeste ports and working

	out of planning and sketch design for Ainazi port territory”
Strategy	Joint development strategy for Ainazi, Salacgriva and Haademeeste ports
SCF	Standard conversion factor
SPDE	Single programming document of Estonia
SPDL	Single programming document of Latvia
SPNT	Specially protected nature territories
Sq.m.	Square meter
SWOT	Strengths Weaknesses Opportunities Threats
t	ton
TEN-T	Trans-European transport network
ToR	Terms of Reference
VAT	Value added tax
WTP	Willingness to pay

## Summary

The Ainazi City Council as the leading partner has received financing in the framework of the European Community initiative INTERREG III A for implementation of the cross-border cooperation project “North Livonian Coastal Regional Initiative for Cross-Border Social-Economic Development”. The general purpose of this project is to improve the cross-border cooperation between the North Livonia coastal region and the sustainable development of neighbouring regions by creating joint space for economic and social development.

Development of ports and port related services in the North Livonia region is part of the tourism infrastructure and can provide a good opportunity for the steady economic and social growth. In order to consider the potential of ports in the region, a strategy has to be elaborated. The objective of the Joint Development Strategy for Ainazi, Salacgriva and Haademeeste ports is to create a development vision of ports in Ainazi, Salacgriva and Haademeeste municipalities, analyze viability of development alternatives for these ports as well as explore the possibilities of public and private fund raising and know-how for development and operation of port infrastructure.

The sea coast is the main common characteristic of the Salacgriva, Ainazi and Haademeeste municipalities distinguishing from those not having sea border and opportunities for coastal economic activities. Ports of these municipalities can be developed as economic centres to generate various benefits for involved parties – municipalities, businessmen, fishermen, tourists and general public, and activities – recreational, fishery, social and entrepreneurial.

In the context of the Strategy 7 categories of ports are identified: big commercial ports, small commercial ports, passenger ports, cruise ports, fishing ports, yacht harbours/marinas and multifunctional ports.

There are more than 350 seaports along the coast of the Baltic Sea representing all types of ports. The specialization of ports highly depend on their geographic location (cruise ports are located at capital city or close to other big cities), local cargo basins and industrial activities (determine dominant type of cargo port) as well as economic activities of particular area (e.g., development of fishing ports close to fish processing farms), nature and environment (important factor for development of yacht harbours) and also other aspects.

There are seven multifunctional ports in the North Livonia region – Parnu, Jaagupi, Treimani in Estonia and Ainazi, Kuivizi, Salacgriva and Skulte in Latvia. Services of the commercial port are provided by ports of Parnu, Salacgriva and Skulte. Parnu commercial port has the highest cargo turnover: in year 2004 it handled 1.8 million tons of bulk cargo (Skulte port 0.6 million tons, Salacgriva port – 0.2 million tons). These ports are providing transshipment of low value added cargos like timber, woodchip, construction materials and peat.

All of these ports also provide services for fish transshipment and can accommodate yachts. The biggest yacht harbour (which can be considered as a full service marina) is Parnu yacht harbour (60 permanent berths and 30 visiting yacht berths). In 2005 the total number of yacht calls was Parnu port was 273 and in Salacgriva port 136. The leader in the Baltic states is Pirita TOP marina in Tallinn with 2588 calls in 2005 (among yacht harbours in Latvia the highest number of calls has Ventspils marina – 478 in 2005).

The ports of Kuivizi, Treimani and Jaagupi are partially having facilities for accommodation of boats of local costal fishermen. Although Ainazi port was established in the second half of the 19<sup>th</sup> century and was used for ship building (during the Russian Empire) and handling of dry bulk cargos until the Second World War, the port at the moment is a non-operating port having official port status, vacant territory for development and a 1 sq. km acquatorium naturally protected from frequent chocking with sand.

The importance of development of the North Livonia ports is reviewed in the context of the main political, economical and social changes over the recent years related to joining of Latvia and Estonia to the EU (since the 1<sup>st</sup> of May, 2004):

- Trend to relieve motorways from congestions and bottlenecks by switching to higher utilization of waterways;
- Increasing importance of coastal area utilization for recreational boating;
- Increasing tourism interest of the EU old member states' to explore countries newly entered in the EU;
- Higher attention paid to match fishing fleet capacity with fishing possibilities.

One of the key questions to be answered is whether there should be a commercial port, fishing port or yacht harbour/marina in municipalities of Ainazi, Salacgriva and Haademeeste. Based on finding of the Strategy, Salacgriva commercial port has a strong position in the regional shipping market and to some extent is competing with port of Parnu.

For the remaining ports it is not recommended to develop a commercial port for the following reasons:

- No socio-economic preconditions for development of big commercial, passenger and cruise ports;
- Limited cargo basin, no railway access;
- Limited demand for cargo services (e.g., utilization rate of Salacgriva port is only 38%);
- Preventive national economic policies in Latvia and Estonia for exporting of low value added products (timber, peat, etc.);
- Environmental constraints for development of commercial ports (full Environmental Impact Assessment required, which is not the case for development of yacht harbours);
- Lack of existing commercial port infrastructure, which means a lot of capital investment and resulting in very long investment payback period.

The following rationale justifies the feasibility of development of yacht harbours/marinas and fishing ports in Ainazi, Salacgriva and Haademeeste municipalities:

- Rapid increase of incoming tourism in Latvia and Estonia, including increasing number of yacht calls (e.g., from year 2000-2004 in Latvia the growth of GDP in tourism sector amounted to 65%, the number of serviced tourists in hotels and other tourist accommodations – 176%, number of yacht calls in ports of Latvia – 275%);
- Increase of welfare of population in Latvia and Estonia, which is expected to increase at even higher rate after joining of both countries to the EU; rising living standards increase demand for recreational services: there are 7 inhabitants per watercraft in Finland, while in Latvia 267 inhabitants per watercraft (Latvia has 12 yacht harbours, Estonia more than 50, but Finland more than 800 yacht harbours and marinas);
- Favourable geographical location: Ainazi, Salacgriva and Heedemeeste ports are located approximately 115-150 km from Riga and 185-219 km from Tallinn; ports are located in 150 km proximity to the main urban centres (Valmiera, Cesis, Limbazi, Valka, Parnu Kuressaare, Viljandi etc.); ports are next to the Latvian-Estonian border, which provides opportunities for cross-border tourism;
- North Livonia territory is a stop between capitals of 2 countries on the Via Baltica motor way (Riga can be reached by car in 1.2 - 2 hours; Tallinn in 2-2.5 hours);
- National wealth of both countries are located in their capitals; inhabitants of Tallinn and Riga need an outdoor facilities for leisure time and entertainment;
- Although there are several marinas in Latvia, there are no marinas, which are exclusively planned for yachtsmen (all existing marinas are located in big commercial ports); it means that there is no top quality service in marina business and Ainazi port

could become a satellite marina for recreational boaters from Riga (use of permanent berths);

- The price level is still very different in the Baltic states and Western Europe as well as Scandinavia, therefore ports in North Livonia have opportunity to offer a food quality and low or medium cost services to boaters from other Baltic countries (includes mainly dry docking and repair of watercraft);
- North Livonia is rich in beautiful landscapes, intact nature and interesting coastal heritage: tourism assets especially attractive for international yachting community.

Based on the socio-economic analysis of the Baltic Sea region, maritime policies of national governments of Latvia and Estonia, general constraints in development of ports, the SWOT analysis of ports, as well as the engineering analysis of existing port infrastructure, the following recommendations are made for development of ports in Ainazi, Salacgriva and Haademeeste municipalities:

- Salacgriva port – the small commercial and fishing port (sea fishing). Development of the port should be continued in accordance with existing business plan by diversification of the cargo flows and expansion of the storage places in order to generate growing annual turnover.
- Kuivizi port – the fishing port and yacht harbour (gulf and coastal fishing). It is planned that the infrastructure of the fishing harbour will be able to accommodate 40 small fishing boats with maximum length of 10 m and maximum draught of 1.5 m and 3 fishing trawlers with maximum length of 40 m and maximum draught of 3.5 m. It is also planned that Kuivizi port will be used for yacht accommodation (service taken over from Salacgriva port) with total capacity for 35 yachts (10 permanent berths and 30 visiting yacht berths, maximum draught 3.0 m, length 10 m). The planned port infrastructure will cover approximately 1 ha land territory and 1 ha water area.
- Ainazi port – a full service Blue Flag marina (provides services to the boat, the crew, provision, leisure and inland facilities). The marina will be able to accommodate yachts with a maximum draught of 3.5 m and maximum length of 15 m. The planned capacity of the marina is 150 berths for permanent yachts and 50 berths for visiting yachts during the first phase of development (2009-2012) and after the completion of the second phase (2013) it will be equipped with 200 additional berths - 50 for visiting yachts and 150 for permanent yachts. It is also planned that the marina will provide dry storage (for at least 400 yachts) and, if feasible, inside storage (for up to 100 yachts). There is also foreseen possibility to serve small ferries (catamaran type) and coastal fishing boats. Planned port infrastructure (Phase I) will occupy approximately 3 ha of the 39.5 ha land territory assigned for “port-related” activities and the overall water area of the marina basin will be approximately 4 ha.
- Jaagupi port – fishing port and yacht harbour (gulf and coastal fishing). Infrastructure of the fishing harbour is planned to be able to service 40 small fishing boats with average length of 11 m and maximum draught of 1.5 m, 3 fishing trawlers with maximum length of 30 m and draught of 3.5 m. It is also planned that the port will be able to accommodate 50 yachts (15 permanent berths and 35 visiting yacht berths, maximum draught 3.0 m, maximum length 10 m). The planned port infrastructure will occupy approximately 1 ha land territory and approximately 2 ha water area.
- Treimani port – the fishing port and yacht harbour (gulf and coastal fishing). Infrastructure of the fishing harbour is planned to be able to attend 30 small fishing boats with maximum length of 12 m and maximum draught of 1.5 m, and 50 yachts (15 permanent berths and 35 visiting yacht berths) in Phase I. Planned infrastructure will occupy approximately 1 ha land territory and approximately 2 ha water area.

The preliminary investment cost (in prices of 2005) for development of Ainazi marina is 4 148 419 EUR (Phase I) and 1 424 130 EUR (Phase II), for development of Kuivizi fishing and yacht harbour - 1 629 875 EUR, for Jaagupi fishing and yacht harbour - 1 883 060 EUR and for development of Treimani port - 1 106 250 EUR.



The time schedule for implementation port development projects (including elaboration of sketch design, fund raising, technical design, construction, etc.) is at approximately 2 years. The first year of full operation of ports is expected to be 2009 (in case of Kuivizi port the planned start-up year is 2008).

Calculations of the financial return on investment for Ainazi, Kuivizi, Jaagupi and Treimani ports showed that for Ainazi marina the financial rate of return on investment is 10%, financial net present value is 3.4 million EUR, the investment payback period is 17 years and the net operating revenues is positive in the third year of the full operation of the marina. The biggest share in the structure of revenues comprises lease of land in the territory of the port (44%), revenues from permanent berths (24%) and from dry storage (22%). Revenues from the basic berthing related services amount only to 4%. It means that operator of the port can benefit mainly from selling of permanent berths (8 months a year) and storing of watercraft (using these permanent berths) in a dry storage during winter time (4 months a year). One of the substantial factors that should be taken into account for private investors is availability of equity financing, since in the case of Ainazi marina the first 8 years (including 2 years of construction) Ainazi marina will operate with losses (for calculation of the financial return on investment it is assumed to use 15% equity financing and 85% debt financing).

In case of fishing ports/yacht harbours the payback period is impossible to calculate because the net operating revenue is negative (operating costs exceed operating revenues) during the whole life cycle of the project. It explains why there is a need for almost 100% state financial support in order to develop fishing ports. Salacgriva municipality has already applied for the financial support from the FIG to support development of Kuvizi port. In case of Ainazi, the estimated state co-financing rate of investment cost is 70%.

Development of yacht/fishing harbours will give also economic benefits to local economy depending on quality and quantity of inland services (catering, hotels, places of sightseeing and entertainment etc.). International findings show that economic benefits occur to business entities and society in general from operation of full service marinas (service facilities + provision, leisure and inland facilities): one full-time equivalent job (direct and indirect) is attributed to every 10 registered boats and 34% of expenditures by boaters' results in salaries to local employers. One registered boat in the United States creates approximately 4200 EUR of economic output per year in the region.

It is most likely that municipalities of North Livonia will have to enter into PPP arrangement (concession) instead of traditional procurement procedure because of limited financial resources for port development and lack of management capacity to run ports. Based on results of the financial analysis, it is not likely that private partners will be willing to sign the concession agreement without financial support from local governments. Experience of operation of ports and harbours in Latvia and Estonia shows that there is state support provided to develop the baseline infrastructure of ports, leaving functions of port operations to a private sector.

Development of ports in the North Livonia region to a large extent will depend on state tourism policies and financial instruments, e.g. availability of the EU structural funds for the programming periods of 2007-2013, support to marketing activities of the recreational boating industry in the international tourism exhibitions, boat shows and public relation campaigns in order to promote the state (the Baltic States) and attract international boaters. Such national and regional marketing activities are too expensive to be carried out by only several municipalities or port authorities.

Municipalities can support development of ports by approving spatial plans for municipal territories (has to be completed in the Haademeeste municipality), applying for the status of specially supported areas (where applicable), applying for available funds for port development (the FIG and the INTERREG III A programme), providing real estate tax resumptions to private partners and entering into the PPP arrangements.

## Introduction

Development of a yacht ports network in the North Livonian region is an important precondition for the development of the tourism sector. The Ainazi City Council (as leading contracting partner for the Project) has received financing within the limits of the European Community initiative INTERREG III A for enforcement of cross-border cooperation project "North Livonian Coastal Regional Initiative for Cross-Border Social-Economic Development".

The general purpose of the Project is to improve the cross-border cooperation between the North Livonia coastal region and the sustainable development of neighbouring regions by creating joint space for economic and social development. Reaching of this general purpose will promote development of tourism infrastructure of the above mentioned region and in a long-term period will ensure increase of the number of tourists both for Latvia and Estonia, as well as other Baltic Sea region's countries.

Recreational boating has become a flourishing industry in the tourism arena. There are many centres in Europe and elsewhere in the world where such activities have matured into major industries, such as the Atlantic coastline from Portugal to the North Sea island chains of the Netherlands, Denmark, Norway, Sweden and Finland, the Mediterranean, the Caribbean, the American coastlines, the South Pacific.

Till date the coastline of namely the Baltic States (but also Poland and Russia) have been clearly under-utilised in this respect. There are not many yachts yet that venture to the coasts of the Baltic countries.

The main reason therefore is that there are very limited facilities for yachts to safely moor in an attractive surrounding along the coasts of the Baltic States. Although it is clear that the potential is there. The only exception will be limited parts of the coast of Estonia that already receive some yachts, mainly from Finland.

In an effort to boost the development of the tourism in the North Livonia Coastal Region and for the Project concentrating on the development of yachting tourism first of all a strategy needs to be developed. On the basis of meetings with stakeholders involved in development of the Project<sup>1</sup> and the subsequent visits to the port locations in Ainazi, Haademeeste and Salacgriva, it can be concluded that the region certainly offers opportunities for further development of the tourism sector. Given the long coastline with its sandy beaches, water sports and yachting could form one of the segments of tourism in the North Livonian region.

Although recreational boating is currently underdeveloped in the region, it has to be noted that there is already existing port infrastructure in the region. The commercial port of Salacgriva is already well developed and offers adequate and reliable service to its users. Besides, in the territory of North Livonia there is the cargo, fishing and yacht port in Parnu, which is considered as a big commercial port, the second biggest in Estonia after port of Tallinn. Besides, there are several small already operating ports like Kuivizi yacht and fishing port (a satellite port of Salacgriva port) and Treimani port in Haademeeste municipality (a private fishing port).

In Ainazi municipality the port of Ainazi has a port status by the order of Cabinet of Ministers of Latvia, although it is not an operating port after the Second World War. The city and its port used to be a very active place of marine business at the second half of the 19th century, when it was the third biggest producer of sailing ships in the Russian empire. The first nautical school in Latvia was founded there and currently Ainazi Nautical Museum cherishes memories of national awakening period in Latvian history.

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<sup>1</sup> Ainazi municipality, Salacgriva municipality, Haademeeste municipality, Parnu College of the University of Tartu, Cesis municipality, North Vidzeme Biosphere Reserve, Joint Stock Company „Latvia's State Forests", Vidzeme Tourism Association, South Estonia Tourism Foundation, Business and Development Centre of Parnu County.

In the context of development of a joint network of ports in the North Livonian region it is important to consider a balanced and sustainable development of different types of ports (namely, marinas or yacht ports, commercial ports and fishing ports). This is even more evident in a situation with severe environmental constraints on port development – a big part of the North Livonia territory is covered by national reserves or protected territories of nature.

The objective of the Joint Development Strategy for Ainazi, Salacgriva and Haademeeste ports is:

- To create a development vision of ports in Ainazi, Salacgriva and Haademeeste municipalities;
- To analyse the viability of different development alternatives of ports in above mentioned municipalities;
- To provide information about need of state support for sustainable port development in the North Livonian region;
- To analyse the possibilities of fund raising and the possible involvement of the private sector in the development of port infrastructure and the provision of tourism services in the region.

# 1. Description of Terms of Reference

Ainazi City Council has assigned Witteveen+Bos Latvia for the project “Working out of joint development strategy for Ainazi, Salacgriva and Haademeeste ports and working out of planning and sketch design for Ainazi port territory”. Part of this project is elaboration of development strategy for 3 ports in North Livonia – Ainazi, Salacgriva and Haademeeste (Jaagupi port).

There are three ports to be included in the Strategy: Ainazi port, Salacgriva port (and its satellite Kuivizi port) and Jaagupi port. During the start-up of the assignment, it became clear that there was another port in the territory of Haademeeste municipality, the private fishing port of Treimani. This port is also included in the analysis.

The following requirements have been provided by the Ainazi City Council, which have to be taken into consideration:

- Investments were made in Ainazi port during the time period from 1993 to 1997, but Ainazi is still not an operating port and is in the early stage of its development;
- Salacgriva port provides services for shipping, cargo vessels and yachts, and development of this port has to be considered in the context of existing planning documents of Salacgriva port;
- Jaagupi port in Haademeeste municipality is not an operating port and is in the early stage of its development; in 2000 in the framework of PHARE programme there was developed the strategy and the technical design of the port;
- Options for the establishment of a yacht harbour has to be analysed in the development context of each port mentioned in the Terms of Reference;
- Options analysis for the development of a commercial port in Ainazi has to be made, based on the assumption that the investment payback period shall not exceed 30 years;
- In the analysis of alternatives for port development a priority has to be given to environmentally friendly solutions, which promote development of tourism in the region;
- At least three case studies have to be presented as a positive example for development of ports in the North Livonia region.

## 2. Description of socio-economic situation in the Baltic Sea region

This section includes background description of political, economical, social, technological and environmental factors, which influence the socio-economic situation in the Baltic Sea region, basically in Latvia and Estonia.

Nine countries share the Baltic Sea coastline: Sweden and Finland to the North, Russia, Estonia, Latvia and Lithuania to the East, Poland in the South, and Germany and Denmark in the West.

Latvia and Estonia are located in the North-East of Europe at the Baltic Sea. Their geopolitical location is suitable for development of business transactions with countries in East and West of Europe. Republic of Latvia borders Republic of Estonia in North.

The total territory of the Latvian state is 64.6 thousand km<sup>2</sup>. Length of border is 1862 km including coastal line of 494 km. The biggest part of territory is covered by forests (45%), agricultural land amounts to 38% of total territory. Total number of population in year 2003 was 2.3 million inhabitants, population density – 36 per km<sup>2</sup>.

The total territory of Estonia is 45.2 thousand km<sup>2</sup>. Length of border is 4427 km including coastal line of 3794 km (more than 1500 islands mark the coastline). Forest cover the biggest part of the territory (47%), agricultural land amounts to 31% of total territory. Total number of population in year 2003 was 1.3 million inhabitants, population density – 30 per km<sup>2</sup>.

According the EU classification, the whole country of Latvia corresponds to NUTS I and NUTS II levels and is divided into 5 planning regions in NUTS III level. Estonia corresponds to NUTS II level and is subdivided into 5 geographical areas at NUTS III level.

In this strategy there is covered a part of Latvia and Estonia, called North Livonia. This is not an administrative region, but instead a marketing region for tourism services. It belongs to the following administrative territories: Parnu, Viljandi, Tartu, Valga, Polva and Voru counties in Estonia as well as Limbazi, Valka, Valmiera, Cesis, Gulbene and Aluksne counties in Latvia. North Livonia is also part of Vidzeme planning region in Latvia.



**Figure 2.1. Location of North Livonia in the Baltic Sea region.**

## 2.1. Political context

All countries around the Baltic Sea are independent states and are republics by constitution where supreme authority of a country is selected in public elections (parliamentary democracy).

Republic of Latvia was founded in 1918 and, like Estonia (proclaimed as democratic republic also in 1918), regained its independence in 1990 after 45 years of Soviet occupation.

After restoration of independence the Baltic States adopted policies of development of socially oriented market economy and democratic society. Co-operation with neighbouring countries around the Baltic Sea and integration of pan-European transportation and logistics networks is part of their foreign policy. However, the two main objectives of the foreign policy of both countries were joining NATO and the EU.

NATO (both countries joined NATO in 2004 together with Lithuania, Bulgaria, Romania, Slovakia and Slovenia).

On May 1, 2004 the EU was enlarged and 10 European countries joined the union, including Latvia, Lithuania, Estonia and Poland from the Baltic Sea region. It brings a challenge to the new member states to reach the living standards of the old member countries, which is expected to happen in 15 years time. The enlargement provides new development opportunities for the Baltic Sea region, as now there is a single production and consumption market around the Baltic Sea (the only exemption is Russia, which is not a member state of the EU).

In Latvia and Estonia referendums were held and a majority in favour of accession has been reached. The next step for new member states is introduction of a single European currency (EUR), which is expected to take place in year 2007-2008 in Estonia and year 2008-2009 in Latvia. Currently both countries are participating in the EU's currency exchange mechanism. It means that national currencies of Latvia and Lithuania are pegged to EUR at a fixed exchange rate.

According to Law on Local Governments there are two territorial levels of local administration (local government) in Latvia. There were in total 556 local governments on January, 2005, including 530 municipalities (7 republican cities and 53 towns, 444 parishes, 26 amalgamated local municipalities) performing in local or the first territorial level and 33 municipalities (26 counties and 7 republican cities) performing in regional or the second territorial level.

Besides, there are 5 planning regions in Latvia (Kurzeme, Latgale, Vidzeme, Zemgale and Riga), according to Law on Regional Development. Planning regions do not have administrative power and their decision authorities (councils of regional development planning) are nominated by representatives of local governments. Instead, regional development agencies ensure planning and co-operation of regional development for municipalities included in each planning region in order to reach economies of scale, improved access and quality for delivery of municipal services. It is possible that the role of planning regions would be strengthened in the framework of planned administrative reform in Latvia.

Pursuant to the Territory of Estonia Administrative Division Act adopted on 22 February 1995, administrative units of Estonia's territory are county, rural municipality and city. The territory of Estonia is divided into counties. The state administration on a local level is realised in counties. The county is divided into cities and rural municipalities. Local administration is executed in cities and rural municipalities. The territory of a rural municipality may consist of villages, small towns, towns and cities without municipal status. As of 1 January 2005, there were 15 counties, 39 cities and 202 rural municipalities in Estonia.

## 2.2. Economic context

The Baltic Sea region includes a number of countries with different political and cultural background as well as differences in economic development. However, this region has long standing traditions of international trade across the Baltic Sea dating back to the 10<sup>th</sup>-12<sup>th</sup> century. After enlargement of the EU the region is considered as very promising in economic growth and social cohesion.

Latvia and Estonia are small countries in terms of territory – among other countries in the Baltic Sea region Estonia is the second and Latvia is the third smallest country.

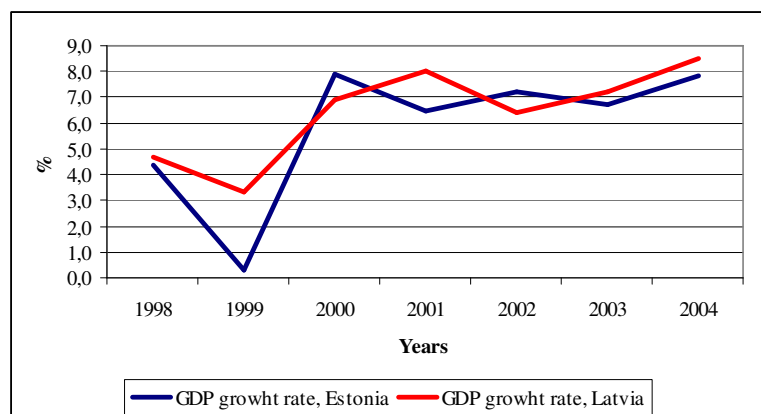
Latvia and Estonia are definitely the fastest growing countries in terms of GDP (the main macroeconomic indicators are given in Table 2.1., but time path of GDP growth for Latvia and Estonia – in Figure 2.2.) while their GDP per capita is still very low compared to old EU member states, e.g. Denmark and Sweden.

**Table 2.1. The main macroeconomic indicators of countries in the Baltic Sea region (2004)**

Country/ indicator	Denmark	Estonia	Finland	Germany	Latvia	Lithuania	Poland	Sweden	Russia
Size of territory, thousand. m <sup>2</sup>	43.1	45.2	337.1	357.0	64.6	65.2	312.7	450.0	17000.0
Real GDP growth rate	2.10%	7.80%	3.60%	1.60%	9.80%	7%	5.30%	3.70%	7.20%
GDP per capita, EUR	36368	6694	28685	26846	4815	5248	5334	31420	3314
Public sector deficit (% of GDP)	2.3%	1.7%	2.1%	-3.7%	-0.9%	-1.4%	-3.9%	1.6%	4.5%
Public sector debt (% of GDP)	43.2%	5.5%	45.1%	66.4%	14.7%	19.6%	43.6%	51.1%	18.0%
Inflation rate (CPI) <sup>2</sup>	0.9%	3.0%	0.1%	1.8%	6.2%	1.1%	3.6%	1.0%	11.7%

Source: EUROSTAT (for Russia – Federal State Statistics Service of Russia)

Public sector deficit can not be considered a problem issue for Latvia and Estonia – in Latvia it is very low (less than 1% of GDP), while there is public sector surplus in Estonia. Both countries have the lowest public sector debt in the Baltic Sea region.

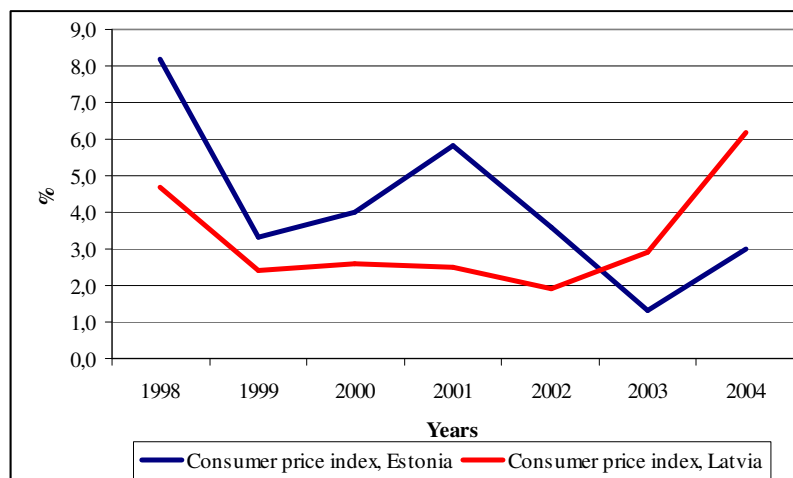


**Figure 2.2. GDP growth rate trends in Latvia and Estonia (years 1998 -2004)**

<sup>2</sup> For the EU countries – Harmonized indices of consumer prices, EUROSTAT  
Witteveen+Bos  
Joint development strategy of Ainazi, Salacgriva and Haademeeste ports version dated 28 February 2006

Source: Statistical Office of Estonia, Central Statistical Bureau of Latvia

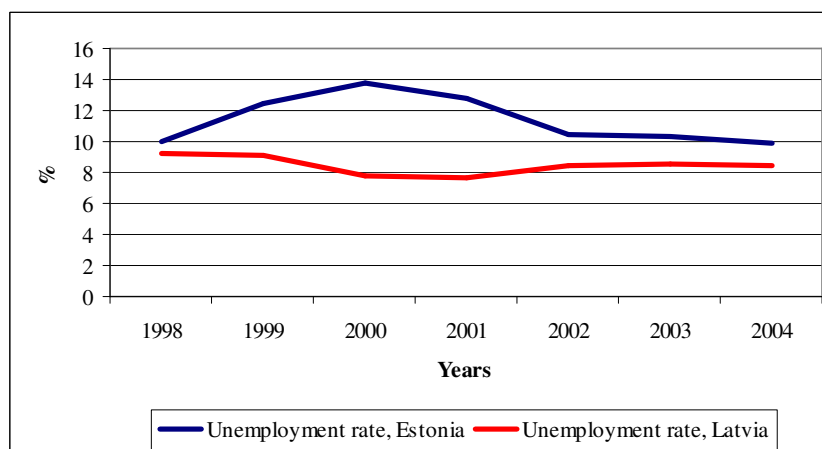
After accession to the EU, Latvia has experienced rapid increase in inflation rate (6.2% in the year 2004). It is notably higher than inflation observed in Lithuania and Estonia (also new member states of the EU).



**Figure 2.3. Inflation trends in Latvia and Estonia (years 1998 -2004)**

Source: Statistical Office of Estonia, Central Statistical Bureau of Latvia

In Figure 2.3. time series of consumer price indices are given for Latvia and Estonia. From year 1998 till 2002 Estonia have had higher inflation rate, but after year 2003 Latvia experienced sharp rise in inflation rate while increase in Estonian inflation rate were relatively small.



**Figure 2.4. Unemployment trends in Latvia and Estonia (years 1998 -2004)**

Source: Statistical Office of Estonia, Central Statistical Bureau of Latvia

Unemployment rates in Estonia and Latvia is relatively stable during last years. Rise in unemployment level in Latvia from year 2002 can be explained by change of methodology of calculation of unemployment.

### 2.3. Social context

Estonia and Latvia have very small population if compared to other Baltic Sea region countries. Population growth rate in year 2004 in was slightly negative in both Latvia and Estonia. Population densities are also quite similar for both countries. Both countries have almost identical proportion of population living in cities – 67.8% in Latvia and 66.6% in Estonia.



**Table 2.2. The main human development indicators of countries in the Baltic Sea region (2004)**

<i>Country/ indicator</i>	<i>Denmark</i>	<i>Estonia</i>	<i>Finland</i>	<i>Germany</i>	<i>Latvia</i>	<i>Lithuania</i>	<i>Poland</i>	<i>Sweden</i>	<i>Russia</i>
Total number of population	5 398	1 351	5 220	82 532	2 319	3 446	38 191	8 976	144 000
Population growth rate	0,26%	-0,37%	0,26%	-0,01%	-0,53%	-0,48%	-0,07%	0,39%	-0,45%
Population density per km <sup>2</sup>	125.1	31.2	17.1	231.2	37.3	52.9	122.2	21.8	8,5
Population at the working age	3 575	916	3 486	55 596	1 587	2 319	55 510	5 835	-
Economically active population	2 851	637	2 572	39 530	1 106	1 597	16 731	4 520	72 909
Unemployment rate <sup>3</sup>	5.4%	9.2%	8.8%	9.5%	9.8%	10.9%	18.8%	6.3%	33.3%
Life expectancy (men)	74.9	-	75.1	75.5	65.5	66.3	70.5	77.9	58.8
Life expectancy (women)	79.5	-	81.8	81.3	76.8	77.7	78.9	82.4	72.0

Source: EUROSTAT (for Russia – Federal State Statistics Service of Russia)

In both countries 68% of population was at the working age, that is slightly lower than average of the Baltic countries. 48% of population was considered economically active – this proportion is the same on average for the Baltic Sea region countries (excluding Russia).

If the unemployment rate is compared among the Baltic Sea region countries, Latvia and Estonia are fairly close to the region's average unemployment rate (again, excluding Russia).

It must be noted that life expectancy in Latvia is the lowest from the Baltic Sea region countries (excluding Russia) – that indicates problems in overall welfare and health status of the nation.

Both Latvia and Estonia have one official language – Latvian in Latvia (mother tongue for 58.2% of population) and Estonian in Estonia (mother tongue for 67.3% of population). In Latvia Latvians comprise 58.6%, but Russians – 28.8% of total population, while in Estonia Russians comprise only 25.7% and Estonians – 68.4% of total population.

At least 12.8% of population<sup>4</sup> in Estonia have higher education, 21.9% - general secondary education and 24.8% - vocational secondary education, while in Latvia 13.9% of population<sup>5</sup> have higher education, 31.0% - general secondary and 20.2% - vocational secondary education. This indicates that the average level of education in Latvia and Estonia is fairly high.

In general Latvia and Estonia are quite similar countries, so there is good background for cooperation. However, one of the main problems in communication is the language barrier –

<sup>3</sup> For EU member states - Harmonized unemployment rates

<sup>4</sup> Data from population census in Estonia of year 2000

<sup>5</sup> Data from population census in Latvia of year 2000

as Latvian is Indo-European language, but Estonian - Finno-Ugric language, they are quite different, so other medium languages (as English or Russian) are used.

## 2.4. Technological context

After May 1, 2004 nearly all countries around the Baltic sea have been integrated into a single political and economical system. A backbone of the competitiveness of the region is transport and logistical system. Because of the “Iron curtain” during more than 50 years in the 20<sup>th</sup> century, the transport and logistical system of the Baltic Sea region is unbalanced. As a result of different political regimes in countries around the Baltic sea the East-West connection in the region are much weaker than North-South direction.

Transport infrastructure of the region includes seaports, ferry terminals and airports as well as major roads and rail lines crossing regional or national boundaries.

Transport infrastructure of the Baltic Sea region forms a part of the TEN-T network.



**Figure 2.5. Transport corridors in the region**

Source: Baltic Palette II – Transport corridor networks. Summary report. November 2004

The TEN-T network connects Helsinki and Stockholm via the Nordic Triangle with other capitals in Scandinavia. Continuation of the Nordic Triangle is connection to St. Petersburg via road E18. E20 motorway links St. Petersburg and Tallinn. To the South Helsinki is connected with Tallinn and further with Riga (motorway E17 VIA Baltica). Narva and Tartu in Estonia as well as Riga in Latvia are part of VIA Hanseatica corridor, which links St. Petersburg with Gdansk in Poland and Lubeck in Germany.

There are large number of ports in the region. There are approximately 30 big commercial, passenger and cruise ports, forming part of the TEN-T network.

In the region there are only a few big airports like Copenhagen, Stockholm and Helsinki. Stockholm-Arland airport, the largest international airport in the region, is a hub for travel in the Baltic Sea region and Scandinavia. The six main airports (Copenhagen, Stockholm, Helsinki, St. Petersburg, Riga and Tallinn) in the region offer between 15 and 100 non-stop destinations. It is expected that Riga could become another air transport hub in the region.

### **Latvia**

There are ten ports in Latvia. The three main ones are Ventspils, Riga and Liepaja – all of them mostly working with transit cargoes, but Riga and Venspils offer also passenger transportation. Around 90% of transit is going through these ports, mainly from the CIS

countries to the West. Latvia is the main transit trade route through the Baltic Sea region. The ports of Ventspils, Riga and Liepaja are ice-free all year round. There are seven small ports in Latvia – operating basically as fishing and yacht ports, handling also wood products. The ports of Riga and Ventspils are operating as Freeports for already 10 years. The port of Liepaja is part of the Liepaja Specialized Economic Zone. The total cargo turnover of Latvian ports in the year 2004 exceeded 57 million tons. Almost 42% of cargo turnover is liquid bulk, 41% - dry bulk and 19% - general cargo. Oil and oil products were 38% of the total cargo turnover, coal - 23%, chemicals - 10% and wood products - 11%. Cargo turnover of the seven small ports in 2004 was 1.13 million tons.

Railways in Latvia are managed by State Joint Stock Company "Latvian Railway" and its subsidiary companies. The total length of available railroads is 2269,8 km. Railroad network is connected to all neighbour states - Estonia, Lithuania, Russia and Belarus. In year 2004, 23 856 thousand passengers and 51 058 thousand tonnes of cargo (48 630 tonnes international) were transported. The share of private freight companies is relatively small – they constitute approximately 10% to total cargo turnover.

Latvia has approximately 20 227 km total length of roads, but only 8 105 km are paved. Condition of road network is dissatisfactory – 44% of paved roads and 32% of gravel covered roads are close to collapse, also 45% of bridges are in a poor condition. Extensive road reconstruction works are carried out, mainly with support from the EU structural funds and Cohesion fund.

## **Estonia**

There are 101 ports in Estonia, 31 of them involved in merchant shipping (freight and passenger transport). The biggest turnover of international freight and passenger transport is taken by Vanasadam (the Old City Harbour), Muuga Harbour, Paljassaare Harbour and Paldiski South Harbour, receiving vessels with a draught of 9 - 16.9 m. All of these belong to the state-owned trading company Port of Tallinn Ltd., and are open for navigation all year round. Additional ports are part-municipal, part-private. There are six ferry ports: Kuivastu, Virtsu, Heltermaa, Rohuküla, Sviby and Sõru. The larger ports have provided the conditions necessary for receiving large ships. Approximately 95% of transit freight transport and major share of import and export freight transport passing through Estonia passes seaports. In total, 46.3 million tons of goods were loaded and discharged in seaports of Estonia in 2004, being by 4% more than in 2003. The transit freight amounted to 69% of the total amount of goods loaded-unloaded from which nearly 65% is oil and oil products. The biggest port of Estonia - Port of Tallinn handled more than 37.4 million tonnes or 80.9% of total seaborne cargoes of Estonia in 2004.

Railways in Estonia are managed by Joint Stock Company "Estonian Railways". Total length of available railroads is 690.7 km (total length of tracks – 1 320.5 km). Railroad network is connected to both neighbour states - Latvia and Russia. In year 2004 133.9 million tonnes of cargo were transported.

The length of national registered roads in Estonia is 51 412 km, 16 435 km of which (32.0%) are state roads. 1 430 km (8.7%) of the national roads were main roads, 2 524 km (15.4%) basic roads and 12 439 km (75.7%) secondary roads. On January 1, 2002, the official length of paved roads totalled to 8,474 km or 51.6% of the total lengths of national roads. Similarly like in Latvia, the EU funds are used for reconstruction of deteriorated and outdated road infrastructure.

## **2.5. Environmental context**

The Baltic Sea is a semi-enclosed sea of about 415 000 km<sup>2</sup>. Proceeding from the northern end, it includes the Bothnian Bay and the Bothnian Sea. At the southern end of the Bothnian Sea, the island of Aland divides the Aland Sea from the Archipelago Sea. The Gulf of Finland

is the eastern arm of the Baltic Sea. The central portion of the Sea, known as the Baltic Proper, includes the Eastern and Western Gotland Seas. To the east and south are the Gulf of Riga, and the Gulf of Gdansk. Moving to the west are the Bornholm and Arkona basins, followed by the Sound, the Belt Sea and the Kattegat.

Marked seasonality is the principal feature of the Baltic climate. Winters are long and cold and summers short and comparatively warm. Mean temperatures range from about minus 10°C over the Gulfs of Bothnia and Finland in midwinter to about 17°C over southern parts of the Baltic in midsummer.

The Baltic Sea is one of the largest brackish water systems in the world. Because of its highly variable hydro-physical conditions (oxygen and salinity) specially adapted species have developed there. These unique characteristics cause the marine system of the Baltic Sea to be very sensitive. About 16 million people live on the coast and about 85 million people live in the Baltic Sea catchment area, placing severe pressure on the ecosystem. The Sea receives heavy pollutant loads from the surrounding countries and the increasing oil transport also poses a significant risk to the Baltic ecosystem.

One of the most serious environmental problems of the Baltic Sea is eutrophication caused by the presence of excess nutrients in the sea water, particularly nitrogen and phosphorus. These substances are introduced by waste waters from municipalities, by agriculture on its shores, by industrial pollution and by airborne deposits.

There are many shipping routes in the Baltic Sea and maritime traffic in the sea is increasing every year. Therefore, the danger of large oil discharges is increasing due to growing shipments of oil. However, the biggest source of pollution from shipping currently comes from illegal oil discharges.

Protection of the Baltic Sea is one of the priorities of inter-governmental cooperation of the Baltic region states. The international cooperation to protect the Baltic Sea is based on the Helsinki Convention (the Convention on the Protection of the Marine Environment of the Baltic Sea Area), which obliges the participating states to reduce emissions from all pollution sources.

The governing body of the Convention is the Helsinki Commission, also called HELCOM or the Baltic Marine Environment Protection Commission. HELCOM works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation.

## **Latvia**

Latvia borders the Baltic Sea to West and North-west. The Gulf of Riga, a thumb-shaped inlet of the Baltic Sea, pokes into Latvia's northern coast. The Vidzeme Upland in eastern Latvia boasts the country's highest point, Gaizina kalns, which rises to a 311m.

About 40% of Latvia is forested, and elk, deer, wild boar, wolves, lynx and brown bears are prominent forest inhabitants. Beavers and otters live in the inland waterways and seals along the coast. Latvia is also home to 6500 pairs of white stork (six times as many as the whole of Western Europe). Latvia's sole national park, situated in the Gauja river valley east of Riga, has great scenery, walking trails, castles and a wildlife centre. There are a number of nature reserves, three of which are situated in the Kurzeme region in Western Latvia.

From early November until the April thaw, temperatures rarely rise above 4°C and the sun shines only a few hours a day. June to August daytime highs is normally in the 14-22°C range. July and August are the warmest months but are prone to persistent rain.

## ***Estonia***

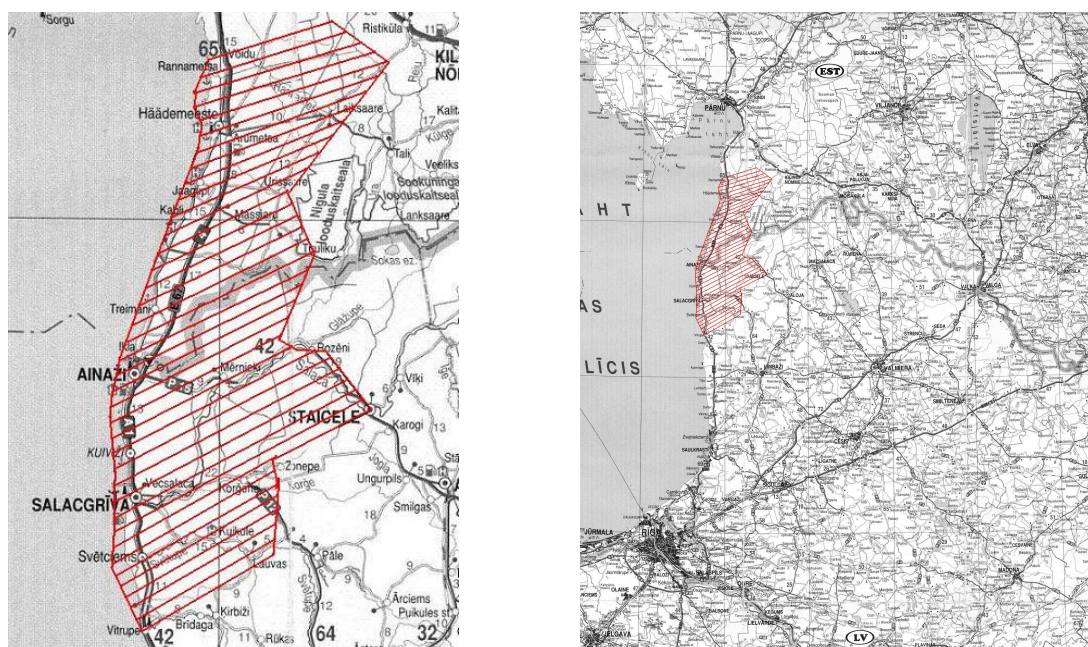
Estonia is pretty flat, so it is possible to see a lot of it from the highest point - the 317m (1040ft) Suur Munamägi, in the south-east. Lake Peipus, on the Estonia-Russia border, is the 4th largest in Europe at 3500 km<sup>2</sup>. Islands make up nearly 10% of Estonia's territory; the biggest are Saaremaa and Hiiumaa, both off the western coast. Forests cover nearly half the country, and about a quarter of Estonia is wetland - some of the peat bogs are 6m deep.

Estonia's rich flora includes 1470 varieties of indigenous plants, while its fauna features thriving populations of large European mammals, among them roe deer and elk. Estonia also has ten species of rare and protected amphibians. A number of large raptors, including golden eagle, white tailed eagle, spotted eagle and eagle owl are protected, as is the rare black stork. One of the unique sights of the Estonian forest is the European flying squirrel.

The climate is on the cool and damp side of temperate, verging on continental as you move inland where, in winter, it can be a few degrees colder than the coast or, in summer, a few degrees warmer. Winters are fairly severe. The waters around Hiiumaa and Saaremaa Islands freeze over in mid-January and usually don't thaw for 3 months, during which time the entire country is covered in snow. Rain is heaviest in September and lightest in spring.

### 3. Background information about Ainazi, Salacgriva and Haademeeste municipalities

Three North Livonia municipalities – Salacgriva, Ainazi and Haademeeste, are situated along the coast of the Baltic Sea, North-East of the Gulf of Riga. The total area is 869.3 sq.km, 44.9% of it lies within the territory of the Republic of Estonia and 55.1% - the Republic of Latvia.



**Figure 3.1. Geographical location of three North Livonia municipalities**

Ainazi and Salacgriva municipalities is part of Riga planning region and are bordering with Vidzeme planning region (most of the closest industrial centres are located in Vidzeme planning region). Both municipalities are included in Limbazi county.

Haademeeste municipality is part of Parnu county, which belongs Western Estonian group of counties (according to NUTS 3 classification). A summary of background information about the three municipalities is presented in Table 3.1.

**Table 3.1. Summary of background information of the municipalities**

<i>Name of municipality/ Indicators</i>	<i>Haademeeste</i>	<i>Salacgriva</i>	<i>Ainazi</i>
Size of the territory	390.2 sq.km	325.1 sq.km	154 sq.km
Number of population	3267	5980	1800
Population density	8.4 inhabitants/sq.km	18.4 inhabitants/sq.km	2.1 inhabitants/sq.km
Main business activities	fishing&fish processing forestry services agriculture production of construction materials	fishing&fish processing forestry services, including port related agriculture	forestry services agriculture
Municipal budget revenues (year 2005)	2 740 989 EUR	3 240 991 EUR	731 111 EUR
Spatial planning	will be approved in 2006	approved in 2004	approved in 2005



## **3.1. Description of Riga and Vidzeme planning region**

### *3.1.1. Riga planning region*

Riga planning region is located in the central part of Latvia and its metropolis is the capital of Latvia – Riga. Total territory of the Riga region is 10441.5 sq.km or 16% of total area of Latvia. The region has border with Kurzeme planning region in the West, Zemgale planning region in the South and Vidzeme planning region in the East, but in the North the region has nearly 200 km long sea coastline (Gulf of Riga).

Riga planning region contains Riga city, Riga county, Jurmala city, Ogre county, Tukums county and Limbazi county. It is the most inhabited region of Latvia with total population of 1.1 million inhabitants (as of 2004), which is 47.4% of total population of Latvia. Around 82% from all inhabitants lives in cities. The average population density is 105 inhabitants per sq.km.

Territory is rich with forests covering 47.4% of the total area of the Riga planning region. Agricultural lands are 32%, other land is 11.4%, land covered by waters is 3.9%, bogs cover 4.2% and 1.1% are bushes.

Riga planning region has the fastest growth of GDP per capita (increase from 1997 is 113.3%) in comparison with other planning regions of Latvia. In 2002 it was 4979 EUR or 143% of average GDP per capita of Latvia. The key economic sectors are: transit, finances, power industry, food production, pharmaceutical production, wood-processing, publishing and printing industry, furniture production, textile production, and production of communication equipment. Since economic activity is high, the unemployment rate is low (5.1% in 2003).

Specially protected nature territories in Riga planning district exceeds 10% of total area. Within the region there are two National Parks – National Park of Gauja and National Park of Kemeris; part of the North Vidzeme Biosphere Reserve as well as many nature reserves. There are also protected landscape areas and many Monuments of Nature.

According to Development Programme of Riga region, objectives of the region development are as follows:

- High quality and development of human resources;
- Convenient reach of the region in terms of local and international access;
- Competitive national economy, varied and active entrepreneurship;
- High quality living environment;
- Increase of role of Riga region in local and international level.

### *3.1.2. Vidzeme planning region*

Vidzeme planning region lies in the North-East of Latvia. Total area of the region is 15346 sq.km, which is almost 24% of the total territory of Latvia. Vidzeme planning region has border with the Republic of Estonia in the North and with the Russian Federation in the East. In the West is located neighbouring Riga planning region and in the South Vidzeme has border with Zemgale and Latgale planning regions.

Vidzeme planning region consists of 7 counties - Aluksne, Cesis, Gulbene, Madona, Valka and Valmiera. The region contains 16 towns and 113 parishes. Total population of the region is 0.248 million inhabitants (as of 2004) or 10.7% of the total population of Latvia. Around 59% from all inhabitants of the region lives in the rural area. The average population density is 17 inhabitants per sq.km.

Around 50% of Vidzeme planning region is covered by forests which are approximately 27% of the total forests of Latvia. 35% of the region's territory is agricultural land.

GDP per capita in Vidzeme planning region in 2002 was 1962.2 EUR (increase from 1997 is 59.9%) or 57% of average GDP per capita of Latvia. The main represented industries in the region are: forestry and wood processing, agriculture, food and beverage production and some other manufacturing industry (textile, peat and bricks).

Vidzeme planning region is rich with specially protected nature territories (SPNT), which determines certain restrictions for economic activities, in particular with regard to production. SPNT covers 43% of Vidzeme region territory and constitutes 49% of all SPNT of Latvia. The biggest protected territory of the region is Gauja National Park (covers 42% of all SPNT of the region). 12% of the SPNT of Vidzeme region covers Northern Vidzeme Biosphere Reserve. Vidzeme planning region hosts two nature reserves – Krustkalns and Teici. There are also three protected landscape areas – Vecclaicene, Vecpiebalga and Vestiena.

According to the Development Programme of the Vidzeme planning region, priorities of the region development are:

- Raising regional competitiveness;
- Intensification of entrepreneurial activities;
- Increasing productive capacity of industrial, agricultural and service sectors;
- Attraction of human resources to the region;
- Improved education opportunities to meet the needs of the labour market;
- Development of business related infrastructure;
- Conservation of heritage, natural biological diversity and landscapes of the region.

### **3.2. Description of Western Estonia region**

Western Estonia consists of four counties - Parnu, Lääne, Hiiu and Saare. Hiiu and Saare counties are islands. The region covers an area of 11134 sq.km or around 25% of total territory of Estonia. Western Estonia has a very long coastline, border with Latvia in the South and Central Estonia region in the East.

Population of the Western Estonia consists of 0.163 million inhabitants (as on 2004) or around 12% of Estonian population. Population density is around 15 inhabitants per sq.km.

10% of the labour force works in agriculture, 34% in industry and the remaining 56% in the service sector. The region has a well-developed tourism and health resort sector. Major industrial sectors include wood and furniture, food processing (especially fishery) and plastics. The unemployment level in the region is approximately 7.8%.

Total GDP of Western Estonia in 2002 was 664.8 million EUR or 9% contribution in total GDP of Estonia. GDP per capita of the region in 2002 was 4037.2 EUR or 73.4% of average GDP per capita of Estonia.

Parnu county is located in the South-West part of Estonia. It is the biggest of all fifteen Estonian counties and contains 4807 sq.km or almost 11% of the territory of Estonia. Parnu county has border with Latvia in the South and more than 242km sea coastline (Gulf of Riga) in the West, but in the North its neighbours are Laane, Rapla and Narva counties and in the East - Viljandi county. The Parnu county contains 177 islands and islets, two of them are inhabited and the biggest is Kihnu Island (17sq.km, 632 inhabitants).



The county is subdivided into municipalities. There are three urban municipalities – Parnu and Sindi and Kilingi-Nomme, and twenty rural municipalities. Parnu is also the capital of the county and it is popular holiday resort for Estonian and increasingly also for foreigners, e.g. Sweden, Finland, Germany and Russia.

The territory of the county consists of: forests 48%, swamp and bogs 24%, arable land 21% and other land 7%.

The Parnu county is the 4<sup>th</sup> most populated county of Estonia with 0.9 million inhabitants (as of 2004) or around 7% of Estonian population and have the 5<sup>th</sup> highest population density – 18.6 inhabitants per sq.km.

Parnu County is area of poly-functional economy. In the city of Parnu more developed are tourism and health resorts, forestry and wood processing, food and textile industry, commerce and catering, and services. In rural territories of the county dominant are agriculture, forestry and wood processing, peat industry, production of building materials, fish and fish processing and also tourism.

The nature of Parnu County is rich and diverse, especially important are two areas of special protection status – Nigula Nature Reserve (4656 ha) and Rannametsa – Soometsa Nature Reserve (9860 ha).

According to the development strategy Parnu county, there are eight key strategic objectives:

- Quality of education;
- Cultural diversity;
- Social security;
- vitality of rural settlements;
- developing entrepreneurship;
- Optimality of technical infrastructure;
- Ecological cleanliness of natural environment
- Openness and attractiveness.

### **3.3. Description of Ainazi municipality**

Ainazi town with the rural territory is a small, quiet and very pleasant populated area situated in the North of Latvia, eastern part of the Gulf of Riga with the coastline of 5 km (see Figure 3.1.). The municipality of Ainazi has a 22 km long border with the Republic of Estonia. The distances to the nearest cities with industrial significance are 115 km (Riga), 75km (Parnu), 90 km (Valmiera) and 62 km (Limbazi).

Ainazi municipality is located in a very favourable place on the crossroads. 6 km long section of the Via Baltica (A1 - motor road of state significance) crosses the municipality in direction from South to North. 25 km of the second category motor road Ainazi – Staicele runs through the municipality from West to East.

The territory of Ainazi municipality is 154 sq.km, 29% of it includes agricultural land and 67% - forests. The average population density is 2.1 inhabitants per sq.km.

In the beginning of 2004 the total number of population of the municipality was 1800. Inhabitants within the working age are 61% of total population, demographic load ratio – 0.56, unemployment rate – 4%.

The main business activities in the municipality of Ainazi are provided by small enterprises with limited number of working places. There are around 100 working places provided by 34 local private companies with the main areas of business in forestry, services and agriculture.

There are 309 registered farms (dominate self employment with production of agricultural products for self consumption). The biggest employers in Ainazi are the municipality and several state institutions (60 employees). Approximately 100 inhabitants work for JSC “Salacgriva-95” in Salacgriva town.

Nature of the municipality of Ainazi is very diverse and very little transformed. The entire municipality lies within the territory of North Vidzeme Biosphere Reserve and has landscape protection area status. The most protected and also included in the list of Natura 2000 (nature protection status of European significance) are territories containing approximately 8% of the total territory of the municipality of Ainazi:

- Nature Reserve “Randu Plavas” (covers 198 ha of Ainazi town territory);
- Nature Reserve “Mernieku Dumbraji” (covers 22 ha of rural territory of the municipality close to the border of Estonia);
- Nature Reserve “Kalna purvs” (lies within rural territories of Ainazi and Staicele municipalities, total area 152 ha).;
- Nature Park of the “Valley of the River Salaca” (lies within the territories of Limbazi and Valmiera districts, total area 53.2 sq.km, in Ainazi municipality covers 850 ha between Mernieki and Rozeni).

There is also monument of nature “Sarkanās Klintis” with special geological and geomorphological protection status. It is located by the riverside of Salaca 8km north from Ainazi.

The territory in Ainazi with “port status” located in a place of former commercial port. The overland territory of Ainazi port comprises 39.5 ha. The borders of the port are determined by Regulations No 59 of the Cabinet of Ministers of the Republic of Latvia “Regulation on determination of the borders of Ainazi port”, dated as of February 15 2000. Approximately one hundred years ago this port was the third biggest port in Latvia, now the harbour constructions are badly damaged and infrastructure is completely destroyed. The port can not be used for shipping.

Development of Ainazi municipality is determined by planning documents – “Development plan of Ainazi town and rural territory” and “Territorial planning of Ainazi town and the rural territory” approved by local government on March 9, 2005. According to the development plan of Ainazi, the main development objectives are:

- To enable entrepreneurship activities within the administrative territory of Ainazi as a base for further inhabitants’ prosperity improvement;
- To improve quality of human created environment and enable sustainability of nature environment;
- To induce development of versatile and competitive personalities within the territory of Ainazi;
- To develop environment where each person feels important and needed for society.

One of the 5 main activities (infrastructure, culture, social, untraditional agriculture and rural tourism) in order to reach economic and social strategic objectives is development of rural tourism, including:

- Covering with asphalt road “Ziemeļu Stīga”, section Ainazi-Apses;
- Establishment of Tourism Information Centre, financed by Ainazi City Council;
- Improvement of the beach, financed by entrepreneurs;
- Location of tourism signs, Foundation of Autoceli;
- Construction of yacht berths.

### 3.4. Description of Salacgriva municipality

Salacgriva is a small town founded in 1928. It is situated along the coast of the Baltic Sea (sea border is 19.5 km) in the North of Latvia in the place where river Salaca falls into the sea.

Salacgriva lies on the Via Baltica, 103 km from Riga, the capital of Latvia. The section of the Via Baltica that crosses the municipality of Salacgriva is 30 km long. Distance to the nearest cities of industrial significance is 50 km (Limbazi), 95 km (Valmiera), 90 km (Parnu).

The total area of the municipality is 325.1 sq.km: Salacgriva town comprises 12.57 sq.km and the rural territory - 312.83 sq.km. Forests take up 36.6% of the total area of the municipality and 60.3% are agricultural lands. Population density is 18.4 inhabitants per sq.km.

In the beginning of 2004 the total population of the municipality was 5980 inhabitants. 57.9% of the population are in working age, 50% male and 50% female. Quantitative changes of the population during the last 5 years are insignificant – decrease of 1.8% (01.01.2000 – 6090 inhabitants).

As of 2003, there were 292 legal entities registered in the municipality of Salacgriva. The main areas of economic activities are fishing, fish processing, agriculture, forestry, services and port related business activities. The main employers in Salacgriva municipality are:

- Municipality;
- Enterprises having port related business – stevedoring companies (JSC Salacgriva Terminals”, JSC “Brivais Vilnis”, JSC “Salacgriva-95”); and shipping agencies (Astramar Ltd., Barwil-Andersson Ltd, Kompass tranzīts, Ltd);
- Fishing and fish processing companies (JSC Brīvais Vilnis, Arinas, Ltd., Rikanda-1, Ltd.);
- Timber industry companies (Iveja, Ltd., Griva, Ltd., Kubs, Ltd.) – more than 100 employees;
- Production industry company (Impres Metal Packaging, Ltd.) – 120 employees;
- Service industry companies (Maksis un deli, Ltd., Salnams, Ltd.).

Salacgriva municipality is rich in landscapes, species and biological diversity. It lies within the territory of NVBR and the biggest part of the municipality has landscape protection area status, like the seacoast of Vidzeme, Salaca, Pale – Viļkene and Svetupe-I. The most protected and also included in list of Natura 2000 (nature protection status of European significance) are the following territories:

- Nature Reserves - “Randu Plavas”, “Vidzemes Akmenaina Jurmala”, “Lielpurvs”, “Niedraju-Pilkas purvs”;
- Nature Park of the “Valley of the River Salaca”.

There are also significant monuments of nature – Boulder Island close to Svetupe and Sacrificial Caves of the Livonians, and several micro reserves of nature within the territory of Salacgriva municipality.

There are also some water territories having special protection. The seaside of 22 km length between Ainazi and the estuary of the river Svetupe is considered as important (one out of 2000) European territory of bird nesting, migration and wintering. The aquatorium of the sea from the coast to 10 m depth between Dzeni and Ainazi is suggested by HELCOM as especially valuable costal territory and in future can be defined as especially protected sea area. The river Salaca is the main natural spawning area of salmon in Latvia.

There are two ports within the territory of the municipality of Salacgriva. The Commercial Port of Salacgriva is located in both sides of the firth of river Salaca in the centre of Salacgriva town. There is also a yacht harbour located on the right coast of Salaca firth close to the operational area of the commercial port. The borders of Salacgriva port are determined by Regulations No. 52 of the Cabinet of Ministers of the Republic of Latvia “Regulation on determination of the borders of Salacgriva port”, dated as of January 28 1997. According to the Regulations, the overland of Salacgriva port is 14.4 ha and the water area is 28.6 ha. The Regulations also determines borders of the second port of Salacgriva municipality – Kuivizi port. This port is located 4km North from Salacgriva and is mainly used by local fishermen. The overland territory of Kuivizi port is 24.9 ha and the water area is 6,4 ha.

Development of Salacgriva municipality is determined by planning documents – “Development plan of Salacgriva town and rural territory” and “Territorial planning of Salacgriva town and rural territory” approved by local government in December 17 2004. According to the development plan of Salacgriva municipality, the main development priorities are:

- Development of infrastructure in relation to highway Via Baltica (development of port and yacht harbour; development of roads, bikeways and port access roads; development of sights of interest and rural tourism; development of service industry);
- Development of production industry.

### **3.5. Description of Haademeeste municipality**

Haademeeste municipality is situated in the South of Estonia, eastern part of the Gulf of Riga with the coast line of 30 km. Distance to the nearest cities with the industrial significance is 142 km (Riga), 50 km (Parnu). The total area of the municipality is 390.2 sq.km. 18.1% of it includes arable lands, 54.2% is covered by forests and 8.4% by bogs. 19.3% of the land is used for enterprises, dwelling areas and other purposes.

In the beginning of November 2005, population of the municipality is 3267, including 57.7% at the working age. Unemployment rate is 3%.

Density of population is 8.4 inhabitants per sq.km. More densely populated are areas between Via Baltica and the Old Riga Road, i.e. the narrow coastal region.

The administrative centre of the municipality is the small (country) town of Haademeeste (868 inhabitants). The rest of the population lives in 20 villages. The largest of them are Kabli (391), Treimani (276) and Ikla (190). Villages neighbouring Jaagupi port are Jaagupi (101), Krundiküla (148), Penu (81).

Population trends are quite the same as in whole rural Estonia – ageing, young people leave to towns, a few come back after graduating from colleges and universities.

There are no big companies within the municipality of Haademeeste. In the beginning of 2005 there were 153 different enterprises and entrepreneurs registered in the municipality. Part of them are not active (the exact number is not available). There are also active enterprises which are not registered in the municipality but have their business here. The main areas of business are forestry, fishing, agriculture and production of construction materials. The largest employers in the municipality are:

- The municipality itself, including schools, culture etc. - 140 employees;
- AS Maxit Estonia (produces expanded clay or “ceramsite”, blocks made of it, other building materials)– 120 employees, mostly from the municipality;
- Fish processing plants (fish imported from other places in greater part);

- Forestry and wood processing;
- Services – accommodation, shops etc.;
- Agriculture and fishing are quite marginal at the moment – there are quite many registered entrepreneurs but their activity is low.

Nature of the municipality area is diverse and attractive. Various landscapes are represented, often in the same smaller area. Sand dunes with pine forest, coastal meadows, bogs and sandy beaches together make up an attraction for nature tourists. 80% of the territory of one of the oldest and most important nature reserves of Estonia - the Nigula Nature Reserve (bogs are protected there) lies within the territory of Haademeeste municipality. Recently another nature reserve – the Luitemaa (Rannametsa-Soometsa) Nature Reserve was founded to protect different species of birds and a rear amphibian – the netter jack toad. In some areas nature is rather vulnerable (sand dunes) and visiting them by too large crowds or vehicles should be avoided or restricted. In Tolkuse and Nigula Bogs wooden trails have been constructed, so more tourists can access them. Access to the beach is limited in some places due to the activities of the owners of plots bordering with the coastline. Some of these problems will be solved by the spatial planning of the coastal area of the municipality.

There are two harbours within the territory of Haademeeste municipality – Treimani and Jaagupi. Treimani is a private operating fishing harbour owned by local fishermen and fish processing plant holder (currently does not have port status). Jaagupi harbour does not have status of harbour yet, but the municipality would like to develop it as fishing and yacht harbour. The access for fishing vessels is prerequisite, because currently the harbour is used by local fishermen. The land that lies along the coast of Jaagupi at the moment belongs to the state of Estonia. The harbour territory will be shifted over to Haademeeste municipality. After completion of legal procedures the land will be completely owned by municipality of Haademeeste and the status of the land will be the Territory of Port.

Haademeeste territorial planning is in the stage of elaboration and will be approved in year 2006.

## 4. Market analysis

### 4.1. The Baltic shipping market

There are more than 350 seaports along the coast of the Baltic Sea representing all types of ports – big and small commercial, passenger, cruise, fishing and yacht ports. The specialization of ports highly depend on their geographic location (cruise ports are located at capital city or close to other big cities), local cargo basins and industrial activities (determine dominant type of cargo port) as well as economic activities of particular area (e.g., development of fishing ports close to fish processing farms), nature and environment (important factor for development of yacht harbours) and also other aspects.

The most widely used shipping systems in the Baltic see waterways are – bulk cargoes, ferry passenger, ferry Ro-Ro and container shipping. Bulk cargoes (dry and liquid) system is for low value product transportation which needs the lowest possible cost of transportation. In order to provide throughput of high volumes, the port's infrastructure should have heavy railroad and main road access to a port. The sea access should be deep (more than 10 m).

Ferry is comparatively new shipping type developed by influence of changing market demand. This shipping type allows combining transportation of two markets - passengers and cargoes (rolling vehicles) and sharing transportation costs. Ferry shipping functions like prolongation of land infrastructure and mostly serves like bridge between to lands or shortcut of road. Ferry Ro-Ro cargo shipment can provide ports with land infrastructure and the main railroad or road close to the port. Passenger ferries function quite similar with exception that shipping should provide high quality service, since frequently this shipping for passengers also is part of their holiday recreation. Besides, the port should be located at or close to urban area with short sea access in order to make the service easy to buy and use.

Container shipping system is used to provide transportation of goods with high value. This transportation is mostly used to navigate in long distances. The main benefit of container shipping service is that the consignee can receive the container in many different ways depending on customs regulations of particular country. Shipped containers can be stored in the warehouse and later transported by road or railroad.

In 2004 the total seaborne traffic in the Baltic Sea was more than 600 million tons or cargoes and over 100 million passengers. According to EUROSTAT data, the total number of calls in the main ports (turnover more than 1 million tonnes per year) of the Baltic Sea region in 2004 was 567.8 thousand. The highest total number of calls was in ports of Denmark (367 thousand). Ports in the Baltic States handle about 18% percent of total volume of the cargoes of all ports of the Baltic Sea region. Individual ships in the Baltic Sea do not exceed 150 000 tons because of draught restrictions in the Danish straits.

Majority of the Baltic Sea region ports are developed over the long period of time with no strong specialization. Basically ports offer cargo and passenger shipments in some proportion and can be viewed as multifunctional ports.

Most of the cargo ports offer all shipping types – liquid and dry bulk, containers, Ro-Ro and general cargo, in order to serve all market needs. In 2004 total cargo structure transported by the main ports (over the 1 million tonnes per year) of the Baltic Sea (except ports of Russia) was as follows: liquid bulk cargoes 31% or 140.3 million tonnes; dry bulk – 30% or 136.9 million tonnes; Ro-Ro – 22% or 99 million tonnes and containers – 6% or 25 million tonnes. If divide all the Baltic Sea cargoes in bulk and general, the proportion is 60% bulk and 40% general cargoes. The structure of cargoes for each country of the Baltic Sea region varies. There are quite even spread among types of cargo, for example, in Denmark 37% liquid bulk,

31% dry bulk, 25% Ro-Ro but in Estonia the dominant type of cargo is liquid bulk – 64%, dry bulk is 14, but Ro-Ro just 7%.

Passenger ports in the Baltic Sea region are quite intensive (more than 100 million passengers annually) and located mainly at capital cities and other big cities like Helsinki, Copenhagen, Tallinn, Stockholm, Helsingborg and many others. The biggest passenger flow (approximately 43% in 2003) goes through the ports of Denmark. Accordingly Denmark has the biggest number (10 ports) of ports transporting over the 1 million passengers per year. Then comes Sweden (6 ports), Finland (2 ports), Germany (3 ports) and Estonia (1 port) transporting 25%, 14%, 10% and 5% of total passengers (2003) respectively. The largest passenger port in the region is Port of Helsinki with 8.5 million passenger turnover annually.

There are 25 cruise ports in the region. In 2004 the total number of calls in the Baltic Sea ports was over 1900. Location of the cruise ports nearly match the same ports serving passenger ferries. It is characteristic for the cruise passengers to be interested to visit capital cities and other big cities offering entertainments and good cultural and sightseeing programs. Other reason why cruise ships usually calls the big ports is the large size of the ships and the deep draught, which may even reach more than 9m. One of the biggest cruise ports is Copenhagen Malmo Port. In 2004 264 cruise ships called in the port with a total number of 320 000 passengers.

Fishing harbours historically have developed as fish landing and fishing fleet berthing facility needed for local fishermen with fishing as the main economic activity. Nowadays there are no big specialized fishing ports along the coast of Baltic Sea. There are small fishing harbours for coastal fishermen or special berths within the big multifunctional port for larger fishing vessels appropriate for deep sea fishing. But even the biggest fish catch of 14.2 million tonnes (2003) in Kaskinen port which is the biggest fish landing port of Finland, the volume of the fish traffic is so insignificant that it is not shown in the operating results of the port. The operation of fishing ports is very dependant on the changing sea nature and fish resources; therefore operation of the fishing ports is difficult and costly. Besides, the fish resources in the Baltic Sea tend to decrease. The employment of fishing industry in the Baltic Sea region has decreased by 50% over the last 6 years. The total fish catch in the Baltic Sea has decreased by 21% during the time period of 1998 – 2004. Still the fishing as coastal economic activity is important for the regional economy and more frequent fishing harbours are being diversified and developed so that the recreational boaters also could use it.

Sailing and recreational boating is very popular in the Baltic Sea region and it is becoming more and more popular also in the regions the new EU member states – Estonia, Latvia, Lithuania and Poland. Yacht harbours are widely spread all around the coast of the Baltic Sea, but especially many yacht harbours has Finland (more than 800), Denmark (over 500) and Sweden (over 450). The leader of the Baltic States is Estonia (over 50). One of the important factors all these states have in common is presence of islands and islets which are very interesting destinations of sailors and recreational boaters. From the geographic aspect most of the yacht harbours are located at big tourist cities within the territory of passenger or multifunctional port or somewhere along the coastline at small village or nice town where nature is rich and environment is peaceful. The estimated number of recreational boats in Baltic Sea countries is over 6.3 million boats and it tends to increase because of increasing living standard of population. For example in Finland and Sweden each 7<sup>th</sup> inhabitant has some kind of boat, while in Estonia - each 89<sup>th</sup> inhabitant, but in Latvia only each 267<sup>th</sup> inhabitant has a boat.

One of the reasons that make shipping in the Baltic Sea difficult is specific ice conditions. The most problematic are winter shipping in the Gulf of Bothnia, Gulf of Finland and Gulf of Riga. Therefore icebreakers are needed in order to remove shipping ways from ice during winter time.

## 4.2. Types of ports in the Baltic Sea region

In the context of this Strategy there are the following types of ports identified:

- Big commercial ports – facilities constructed to serve handling of bulk cargoes, RO-RO, container shipping, including wet, dry storage and repair of watercraft as well as inland storage facilities for shipload. The cargo turnover of big commercial ports exceeds 1 million tonnes per annum<sup>6</sup>;
- Small commercial ports – has the same definition as the big commercial port except that annual cargo turnover of the small commercial port is below 1 million tonnes;
- Passenger ports – facilities used to serve passenger ships (usually defined as ships carrying more than 12 passengers and used for provision of transportation services, including RO-RO). In most cases passenger ports are part of commercial ports;
- Cruise ports – facilities used to serve cruise ships (usually defined as passenger ships used pleasure voyages, where the voyage itself and the amenities of the ship are considered an essential part of experience). Cruise ports like passenger ports are rendered as part of commercial port infrastructure;
- Fishing ports – facilities, constructed primarily to serve the fishing industry, either within the area or within the region, serving as the main collection and distribution centre of fish;
- Yacht harbours/marinas – any facility, shore side or in the water, whose primary function is the wet or dry storage of recreational watercraft. A yacht harbour may be no more than a parking place for boats, be it wet slips, moorings or dry storage. A larger yacht harbour with a considerable number of onshore facilities is called marina. Most of the time a marina is more luxurious and offers more facilities than a yacht harbour;
- Multifunctional ports – provide more than one of above mentioned functions. Most of the ports in the Baltic Sea region are multifunctional ports.

## 4.3. Provided services by type of ports

### 4.3.1 Cargo ports

According to the European Sea Ports Organization data (as of year 2003), there are more than 300 goods and passenger sea ports in the Baltic Sea region. From them 97 commercial sea ports ship more than 1 million tons per year (see Figure 4.1.). There are 14 commercial ports with annual cargo turnover more than 10 million tons and turnover of cargoes of 12 commercial ports are between 5 and 10 million tons. All Baltic Sea region countries (except the Baltic States) have 1 to 2 ports over the 10 million tonnes; 1 to 5 ports with turnover between 5-10 million tonnes and 1 to 12 ports with turnover between 1-5 million tons<sup>7</sup>.

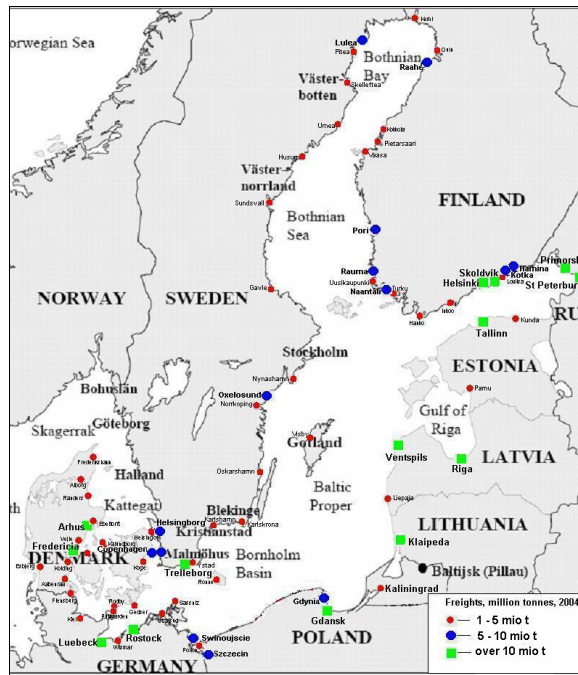
The biggest ports of the BSR are situated on the major connection points of the main railroads and shipping ways of the Baltic Sea. The major ports provide shipment of goods and passengers. The most successful and competitive ports are ice-free ports.

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<sup>6</sup> According to classification of International Navigation Association, the big commercial ports are ports with annual turnover exceeding 10 million tonnes.

<sup>7</sup> Ports are assigned as TEN ports if annual turnover of cargo exceeds 1,5 million tons or 200 000 passengers and they are connected to the TEN-T network (so called A-class ports). There are approximately 30 such ports in the BSR.





**Figure 4.1. The main commercial ports in the Baltic Sea region (freight in million tonnes, 2004)**

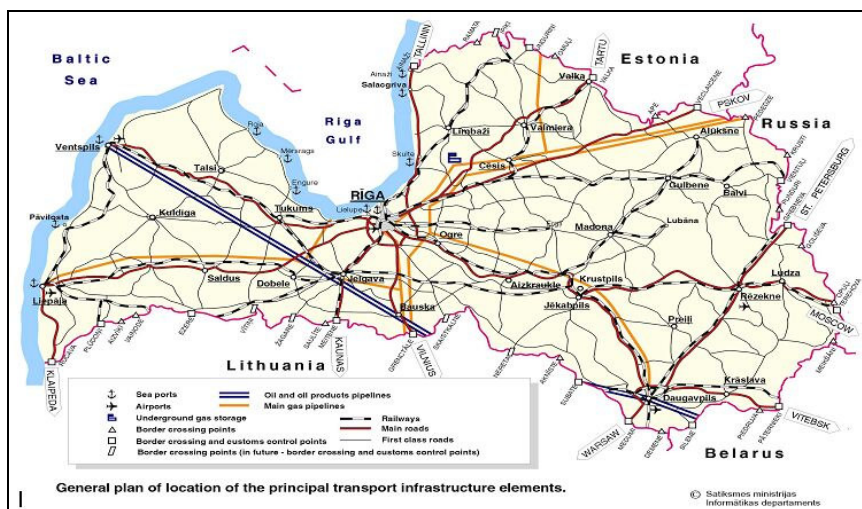
Source: Eurostat

The major ports of the BSR are situated within or close to capitals or big cities. Most of the ports are public. All of them has two main transshipment alternatives – railway and road access (see Annex I). Facilities of each port depend mainly on the cargo flows of a port and the type of vessels handling cargoes. Data shown in Annex I provide understanding of correlation between cargo type and the maximum draught provided by major commercial and passenger ports of the Baltic Sea region to attend the appropriate type of shipping unit.

Statistical data of the major commercial and passenger ports of the Baltic Sea region are provided in Annex II.

#### 4.3.1.1. Cargo ports of Latvia

There are 10 ports in Latvia (see Figure 4.2). The three main ones are Ventspils, Riga and Liepaja – all of them mostly working with transit cargoes.



**Figure 4.2. Commercial ports of Latvia and general plan of transport infrastructure elements**

Source: [www.transport.lv](http://www.transport.lv)

Quays at the ports of Riga, Liepaja, and Ventspils are the property of the state or local government, but port superstructure and equipment (warehouses, cranes, forklifts etc.) are privately owned. The land belonging to the state or local government may be let or leased to private companies on the basis of contract agreements concluded with the Port Authority.

Around 90% of transit is going through the main three ports, mainly from the CIS countries to the West. Latvia is the main transit trade route through the Baltic Sea region. Ports of Ventspils, Riga and Liepaja are ice-free all year round and handle around 98% of all seaborne cargoes of Latvia. Basically this situation can be explained by geographic location of the ports or shipping ways and its connection with the main inland transport infrastructure elements – railroad and the main roads.

Ventspils (maximal draught in the river navigation channel is 15 m) – in terms of volume – is the biggest port in Latvia (maximum capacity is about 75 million tons per year). The main cargoes handled by the port of Ventspils are oil, oil products, potash, chemical goods and general cargo.

Riga port (maximal draught in the river navigation channel is 10.6 m) has a capacity of about 20 million tons and it handles mainly general cargo (containers, Ro-Ro cargo, fertilisers and timber) and oil products.

Liepaja (maximal draught in the river navigation channel is 9.5 m) is the third biggest port in Latvia and is a relatively new port for commercial operations. Capacity of the port is about 7 million tons and it handles mainly timber, metals, fertilizers and Ro-Ro cargoes, as well as bulk and liquid cargoes.

Ports of Riga and Ventspils are operating as Free ports for already 10 years. Port of Liepaja is part of the Liepaja Specialized Economic Zone. Companies working in Free ports and Specialize Economic Zone can receive up to 80% tax exemption.

From all cargoes 2% is transported by seven small commercial ports of Latvia - Engure, Lielupe, Mersrags, Pavilosta, Roja, Salacgriva and Skulte. Small commercial ports of Latvia are mainly situated along the coast of the Gulf of Riga except Pavilosta port which is located at coast of the Baltic Sea. Historically and also nowadays all small ports are used as fishing harbours. Since the modernization in 2001, the ports of Skulte, Mersrags and Salacagriva can accommodate the Baltic Sea type vessels 120 m long with draught of 6 m, carrying capacity of 5000 DWT and ice class I A.

#### 4.3.1.2. Cargo ports of Estonia

All included, there are 101 ports in Estonia both publicly and privately owned. 31 of all ports provide operations related to international merchant marine. There are two public limited companies, which operate public ports: the Port of Tallinn and Island's Lines, and the state is the sole shareholder of these two companies. Saarte Liinid AS (Island's Lines) operates small ports of Roomassaare, Virtsu, Kuivastu, Rohuküla, Heltermaa, and Sviby, which maintain coastal traffic and ferry connections between the mainland and islands of West-Estonia.

The Port of Tallinn operates as a classic landlord port owning only the infrastructure. The superstructure and equipment are owned and operated by private firms. Other ports and their facilities are privately owned. In some ports, of which the biggest are Parnu, the north western port of Paldiski and the Miiduranna port, municipal authorities together with private companies have shareholding interests.



**Figure 4.3. Main commercial ports of Estonia and general plan of transport infrastructure elements**

Source: [www.lib.utexas.edu](http://www.lib.utexas.edu); Witteveen+Bos Latvia SIA

The major ports of Estonia are Port of Tallinn, Port of Pärnu and Port of Kunda. It is possible to see that biggest ports of Estonia also are located close to main road and railroad connection points with waterways (see Figure 4.3.). Port of Tallinn is the biggest port and the most important port of Estonia. Total territory of the port is 607 ha and ports' aquatorium is 1001 ha. It consists of four constituent harbours: Old City Harbour, Muuga Harbour, Paljassaare Harbour, and Paldiski South Harbour.

Muuga Harbour is the main cargo port for Port of Tallinn, located 17 kilometres east of Tallinn. The cargo volume handled accounts for some 80% of the total cargo volume of Port of Tallinn and for approximately 90% of the transit cargo volume passing through Estonia. Muuga is one of the deepest and the most modern ports in the Baltic Sea region. Its main cargo is oil and oil products, but it is investing heavily in new infrastructure in order to diversify port services.

Old City Harbour, situated at the gate of the medieval old town, has become one of the most recognised and visited passengers' ports of the Baltic Sea. It is an excellent harbour for both passenger ferries and cruise ships, and during summer also for fast speed vessels. There are daily ferries from Tallinn to Helsinki and Stockholm. In summer season Helsinki- Tallinn- Rostock route is also provided.

Paljassaare Harbour is situated on Paljassaare Peninsula in Tallinn, approximately 6 km from the centre of the city. With the handling capacity of some 3 million tonnes per year the harbour is considerably smaller than its 2 bigger brothers - Muuga and Old City Harbour. It is a cargo port, which primarily specialises in handling mixed cargo, coal and oil products, as well as timber and perishables. The harbour is also used for cooking oil shipments by the neighbouring refinery.

Paldiski South Harbour is located 45 km west of Tallinn. The biggest group of freight was rolling stock, next came scrap metal, oil products, timber and peat. With a total of 50.9 ha of territory and 137 ha of aquatorium Paldiski South Harbour is remarkably smaller than other ports in Tallinn but at the same time the fastest developing port.

Port of Kunda (private port) is an effective and functional trading port in the Bay of Kunda on the northern coast of the Gulf of Finland. The depth of the port is up to 9.5 meters and ships of freight-carrying capacity up to 8000 tons can be handled there. The largest customers of the port are exporters of timber, cement and clinker, sawn timber, sawdust, peat and fibreboard. In 2005 new specialized liquid-bulk terminal (capacity 52000 cubic metres) and universal dry-bulk terminal with covered storage area 5700 sq. m was started.

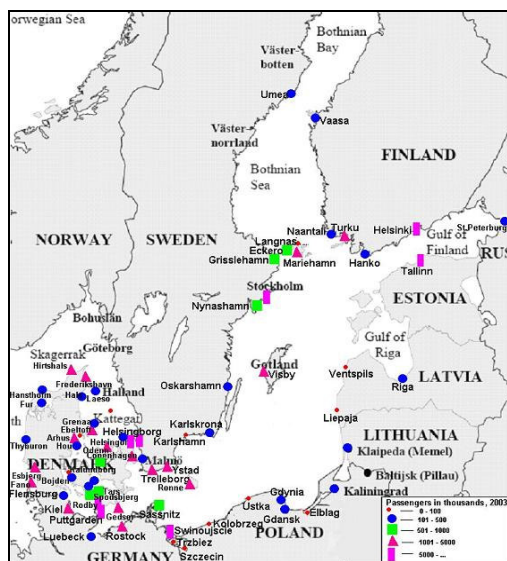
Port of Parnu is situated in the South - West of Estonia. Parnu, Viljandi, Tartu, Põlva, Võru, Valga, Lääne and Järva counties form the hinterland for the harbour. The hinterland accounts for a significant part of the resources of raw materials that are exported through Estonian ports (up to 45% of forest and up to 65% of peat resources) as well as processing industry. In last years the port has become an important transit centre in this region. The biggest investment in 2003 is the construction of a bulk goods terminal. Parnu Sadam AS is a port authority under the Ports Act, owns the basic infrastructures of the port and manages the vessel traffic at the port. Stevedore services are rendered by Transcom AS, Parnu Stividorid OÜ and A & O AS. Transcom AS is the majority shareholder of Parnu Sadam AS (50.6%). The town of Parnu holds 41% of the shares.

There is one new (operations started in October 2005) privately owned, modern multifunctional port – Sillamae port (SILPORT). SILPORT is the most eastern deep-sea port of the EU, located in the eastern part of the Baltic Sea, in Sillamae, Estonia, 25 km from the EU-Russian border. Quayside depths of the port of 12 to 16 m will allow accepting the biggest vessels that can enter the Baltic Sea. A wide network of hinterland infrastructure – roads and rail tracks, provide efficient connection to/from the neighbouring markets of Russia and the CIS. The Free Zone status in combination with the fiscal policy of Estonia make SILPORT an efficient platform for value-added distribution of cargo to the neighbouring markets of Russia, the CIS and the EU.

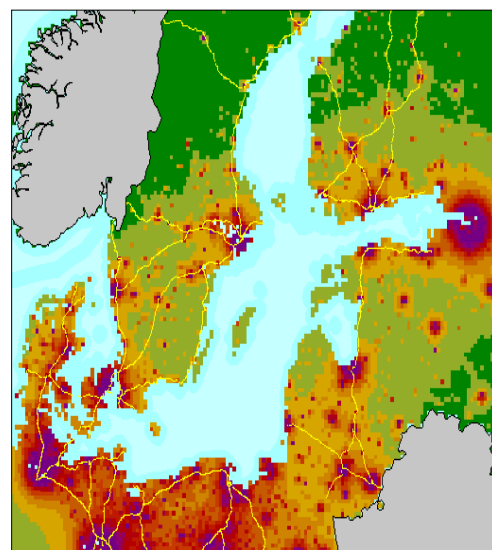
#### 4.3.2. Passengers' ports

There are more than 50 ports in the Baltic Sea region that accommodate passenger ferries (see Figure 4.4.) and are located mainly at capital cities and other big cities like Helsinki, Copenhagen, Tallinn, Stockholm, Helsingborg and many others.

The main factor influencing operation of passenger ports is accessibility potential (see Figure 4.5.) that shows the nearness and access of the potential market.



**Figure 4.4. The main passenger ports in the Baltic Sea region (passengers in th., 2003)**  
Source: EUROSTAT



**Figure 4.5. Map of the accessibility potential to the Baltic Sea**  
Source: BSR Project, Regional Council of Pajät-Hämina



The biggest passenger port of Latvia is the port of Riga. Correspondingly Riga is also the biggest urban centre of the country. Two other port receiving passenger ferries are Ventspils and Liepaja. The main destinations are ports of Germany (Lubeck, Rostock) and ports of Sweden (Nyneshamn, Karlshamn).

The leading passenger port of Estonia is Port of Tallinn. The main destination for passenger ferries is Finland and particularly Port of Helsinki (around 87% of all passengers transported). Other destinations are ports of Sweden (Stockholm) (10%) and the rest 3% of passengers are serviced for trips to Russia (St.Petersburg) and Germany (Rostock). As Estonia is rich in islands, the passenger ferry traffic to, from and between different Estonian islands is quite developed. Especially popular are islands Hiiumaa and Saaremaa in West Estonian Archipelago.

#### 4.3.3. Cruise ports

There are 25 cruise ports in the region (see Figure 4.6.). Location of the cruise ports nearly mach the same ports serving passenger ferries. It is characteristic for the cruise passengers to be interested to visit capital cities and other big cities offering entertainment possibilities as well as good cultural and sightseeing programs. Other reason why cruise ships usually calls the big ports is the large size of the ships and the deep draught, which may even reach more than 9 m. The Baltic Sea Cruise Market 2003-2004 research (made by Centre for Regional and Tourism Research, Bornholm, Denmark) shows that the minimum draught of cruise ships is 3.6 m and the maximum – 9.2m. There are only 2 ships (3.2%) of all cruising the Baltic Sea with the draught up to 4m, 7 ships (11.1%) with draught from 4 -5m, 29 ships (46%) with 5-7m draught and 25 (39.7%) with draught over the 7m.

One of the biggest cruise ports is Copenhagen Malmo Port. In 2004 264 cruise ships called in the port with a total number of 320 000 passengers.



**Figure 4.6. The main cruise ports in the Baltic Sea region (number of calls, 2004)**

Source: BSR Project, Regional Council of Päjät-Hämina

In Estonia cruise ships are mainly accommodated in Old City Harbour, which is a part of the Port of Tallinn. The number of calls in Port of Tallinn in 2004 was 232. It means that Port of Tallinn is one of the leading cruise ports in the region.

In Latvia the only port accommodating cruise ships is the port of Riga, but the number of calls is quite small – just 57 in 2004.

#### 4.3.4. Fishing ports

Fishing harbours historically have developed as fish landing and fishing fleet berthing facilities needed for local fishermen with fishing as the main economic activity. Nowadays there are no big specialized fishing ports along the coast of Baltic Sea. There are small fishing harbours for coastal fishermen or special berths within the big multifunctional port for larger fishing vessels appropriate for deep sea fishing. But even the biggest fish catch of 14.2 thousand tonnes (2003) in Kaskinen port, which is the biggest fish landing port of Finland, the volume of the fish traffic is so insignificant that it is not shown in the annual operating results of the port.

Operation of the fishing ports is very dependant on the changing sea nature and fish resources. Therefore, operation and maintenance of the fishing ports is difficult and costly. Besides, the fish resources in the Baltic Sea tend to decrease. The employment of fishing industry in the Baltic Sea region has decreased by 50% over the last 6 years. The total fish catch in the Baltic Sea has decreased by 21% during the time period of 1998 – 2004. Still the fishing as coastal economic activity is important for the regional economy and more frequent fishing harbours are being diversified and developed so that the recreational boaters also could use it.

##### 4.3.4.1. Fishing ports and fleets of Latvia

Landing of fish is mainly through the ports of Liepaja, Ventspils and Roja, as well as Salacgriva, Skulte, Mersrags, Engure, Riga and Pāvilosta. The internal infrastructure of ports on the coast of the Baltic Sea and those of the Gulf of Riga is outdated and landing of fish at ports is often being performed in inadequate sanitary and hygiene conditions. Only at the ports of Ventspils, Liepaja, Pāvilosta and Engure ice production is ensured. Cold storages have only been built in Liepaja, Ventspils and Pāvilosta ports. Most of the quaysides used by fishing vessels do not comply with the safety requirements. Improvement of internal port infrastructure is expected to provide better conditions for fish landing and storage. These improvements will facilitate the reduction of chemical and oil pollution risk. However, when performing the reconstruction or construction works at ports, environmental and fish protection measures will have to be followed in port aquatoriums.

According to the data of EUROSTAT, fishing fleet of Latvia consists of 942 vessels (2004) with total tonnage 42 670 GT. 80% or 754 units of all fishing fleet comprise vessels with tonnage up to 25 GT. The fleet is divided into three sub-fleets: the high seas fleet; the fleet of the Baltic Sea and the Gulf of Riga; and the coastal vessels. The Baltic Sea and the Gulf of Riga are the main fishing grounds for Latvian fleet with 198 fishing vessels of length more than 12 m. The main gear used is mid-water and bottom otter trawls for fishing sprat and Baltic herring, drift gillnets for salmon, and set gillnets for cod. There are 9 fishing vessels involved in high seas fishery and 5 of them are included in the EU authorized list of fishing vessels having rights to export fishery products to EU Member States. Catches are mostly landed in the markets nearest to the respective fishing grounds - Eastern, Central and Northwest Atlantic fishing areas. In the coastal fleet there are 744 fishing boats of length less than 12 m targeting Baltic herring, salmon, trout, flounder, eel and pike perch, also sprat and cod in smaller quantities. Nevertheless, coastal catches comprise only 4 - 6% of total catches in the Baltic Sea and the Gulf of Riga (3 500 t in 2003, out of a total Baltic Sea and Riga Gulf catch of 71 566 t). However, coastal fishery is crucial for coastal regions, especially in socio-economic terms.

The average age of vessels used for the Baltic Sea fishing and fishing in the Gulf of Riga is 25 years. 62% or 588 units of all fishing vessels are more than 15 years old, but 29% or 277 vessels are more than 25 years old.

The capacity of fishing fleet of Latvia exceeds fishing opportunities of Latvia. With the quotas currently assigned for the total catch of Latvia in the Baltic Sea and the Gulf of Riga all vessels can not operate profitably. That is why the fishing fleet should be reduced and modernized (power of vessels should be increased) to be competitive within the Baltic Sea region. Currently the average power of Latvian trawlers is 225 kW, while Finnish trawlers have 371 kW, Swedish – 693 kW and Polish – 423 kW capacity.

#### 4.3.4.2. Fishing ports and fleets of Estonia

There are many fish landing places in Estonia, the main are - Bekken, Dirhami, Haapsalu, Kaberneeme, Korõessaare, Kihnu, Lehtma, Leooneeme, Miiduranna, Montu, Meeruse, Mahu, Montu, Narva-Joesuu, Nasva, Nova, Parnu, Purtse, Prangli, Paldiski, Roomassaare, Ristna, Sõru, Tapuria, Turbuneeme, Toila, Triigi, Taqalaht, Veere, Virtsu, Vergi, Vana-Sauga.

According to EUROSTAT data, the total fishing fleet of Estonia is 1042 vessels. The Estonian Baltic Sea fishing fleet at the end of 2004 consisted mostly of trawlers. 160 fishing vessels of over 12 m overall length mostly used for the fishing in the Baltic Sea and 882 vessels of less than 12 m are mostly used for the coastal fishing. The catches are predominately Baltic herring and sprat. The number of high seas fishing vessels has decreased from about 100 fishing vessels in 1991 to only 11 fishing vessels in 2004. Estonian high seas fishing fleet consists exclusively of trawlers, with the catch of fish or shrimp processed on-board. The main export destinations for the shrimp production are Iceland, Norway, Japan and Canada.

The fishing fleet of Estonia is quite old. 53% or 556 units of the Estonian fishing fleet are more than 15 years old. Vessels with more than 25 years are 16% or 169 units.

#### *4.3.5. Yacht (recreational boating) harbours and marinas*

Sailing and recreational boating is very popular in the Baltic Sea region. It is becoming more and more popular also in the new EU member states – Estonia, Latvia, Lithuania and Poland. Yacht harbours are widely spread all around the coast of the Baltic Sea (see Table 4.1.), but especially many yacht harbours are in Finland (over 800), Denmark (over 500) and Sweden (over 450). The leader of the Baltic States is Estonia (over 50). One of the important factors all these states have in common is presence of islands and islets which are very interesting destinations of sailors and recreational boaters. From the geographic aspect most of the yacht harbours are located at big tourist cities within the territory of passenger or multifunctional port or somewhere along the coastline at small village or nice town where nature is rich and environment is peaceful. The estimated number of recreational boats in the Baltic Sea countries is over 6.3 million boats and it tends to increase because of increasing living standard of population. For example in Finland and Sweden each 7<sup>th</sup> inhabitant has some kind of boat, while in Estonia - each 89<sup>th</sup> inhabitant, but in Latvia only each 267<sup>th</sup> inhabitant has a floating vehicle.

**Table 4.1. Characteristics of yacht harbours in the Baltic Sea region**

Indicator/ country	Number of Yacht harbours, units	Number of Yacht harbours with The Blue Flag award	Draught range, m	Capacity of harbours	Inhabitants per boat
Denmark	Over 500 270 marinas	74	1 – 5	45 - 776	14
Sweden	Over 450	62	2 – 3.6	25 - 900	7
Finland	Over 800 (every 10-20 nm)	29	1.5 – 5.5	20 - 400	7
Russia	7	0	1.7 - 4	15 - 65	n/a
Estonia	53	4	1.3 – 4.2	5 – 60 (guest berths)	89
Latvia	12	1	3.5 – 6.5	6 – 50 (guest berths)	267
Lithuania	4	0	2.1 – 4.5	3 - 70	n/a
Poland	20	1	1.5 – 5	12 - 120	471
Germany (Baltic)	Over 50	25	1.4 - 5	10 - 300	193

Source: <http://www.eba.sida.nu/>; Witteveen+Bos Latvia SIA

Although research shows that the average maximum allowable draught of the BSR yacht harbours is 4.8 m, sailing experts interviewed within the framework of this assignment consider that harbours with the depth of 3.5 m would be able to accommodate 99% of yachts sailing in the Baltic Sea. Experts also consider that most of the yachts are between 36 – 42 feet (10.5 – 12.5 m) long.

#### 4.3.5.1. Yacht (recreational boating) harbours and marinas in Latvia

There are 12 yacht harbours in Latvia (see Figure 4.7.) – Liepaja, Pavilosta, Ventspils, Roja, Mersrags, Engure, Lielupe, Riga (three berthing points, the biggest harbour is Andrejosta), Skulte, Salacgriva. All of the harbours are part of big or small commercial ports or fishing harbours. Yacht harbours located in the territory of big commercial ports of Riga, Ventspils and Liepaja are separated from other ports' operations. Ventspils yacht harbour has been awarded the international Blue Flag quality award. It is the only Blue Flag marina in Latvia.

Small harbours being able to receive yachts historically have been developed as fishing harbours and are distributed quite evenly along the coastline. Nowadays with trend to reconstruct fishing harbours to be able to serve recreational boating needs, existing small harbours of Latvia forms a yacht harbour network. The distance between harbours does not exceed 6 h sailing distance which is of essential importance for yachtsmen.





**Figure 4.7. Map of yacht harbours in Latvia**

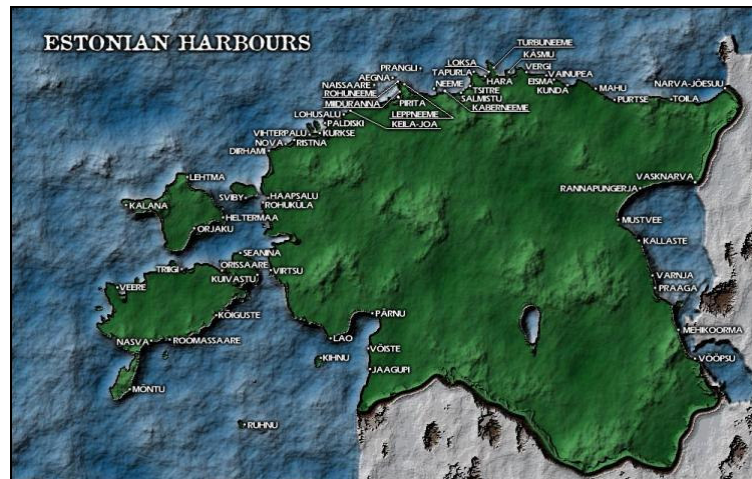
Source: [www.latviancoast.lv](http://www.latviancoast.lv)

From the aspect of provided services the most competitive are Ventspils, Liepaja and Riga (Andrejosta) ports (see Annex V). Accordingly these ports attract and accommodate the biggest number of visiting yachts (see Annex III). So there is strong correlation between services provided by ports and number of visiting yachts. Services provided by yacht harbours mainly are basic services for the crew and boat. At the same time these are services that have the least added value. Services with the highest added value, especially leisure and inland facilities, are insufficiently developed in Latvian yacht harbours. Although it is possible to receive nearly all services for yachts and yachtsmen in different yacht harbours of Latvia, there is no specialized, modern full service marina in Latvia tailored exclusively for the needs of recreational boaters.

#### 4.3.5.2. Yacht (recreational boating) harbours and marinas in Estonia

Recreational boating in Estonia is far more developed than in Latvia. There are more than 50 harbours (see Figure 4.8.) that can accommodate yachts in Estonia. One third of them are located on the islands of Estonia. The islands are essential precondition for attractiveness and intensity of sailing, especially for sailors interested in peaceful, untransformed nature.

More developed yacht harbour infrastructure is in the Northern Estonia closer to the biggest urban centre Tallinn. Mainly it is explicable with steadily growing number of sailors coming from Finland. Besides, in the Northern part of Estonia yacht harbours are more developed and can offer higher quality services. Yacht harbours of West Estonian Archipelago also experience very fast development, especially in Saaremaa and Hiiumaa islands, which is a very interesting and also challenging sailing area for yachtsmen.



**Figure 4.8. Map of yacht harbours in Estonia**

Source: [www.agentuur.ee/sadamad/harbours/](http://www.agentuur.ee/sadamad/harbours/)

There are 19 harbours located within or close distance to the North Livonia region, 6 of them (Kihnu, Ruhnu, Parnu, Manilaid, Munalaid and Treimani) are situated in the Gulf of Riga and 13 (Abruca, Koiguste, Kuivastu, Roomassaare, Montu, Nasva, Veere, Triigi, Orrissare, Seanina, Virtsu, Vatta/Karsa and Kuressaare) around Saaremaa island. From these harbours 8 (Kuivastu, Virtsu, Triigi, Kinhu, Munalaid, Manilaid, Roomassare and Ruhnu) are owned by public limited company Saarte Liinid (shareholder of 100% is the Republic of Estonia). In total this company owns 12 Estonian harbours.

Only 5 out of 19 harbours are yacht harbours (Guest Harbours) – Parnu, Koiguste, Kuressaare, Orrissare and Roomassaare), 5 are fishing harbours with berths for pleasure craft, 6 are ferry terminals, partly also used a fishing harbours, and 3 are harbours without specialization and designated visitors places, berthing is alongside the harbour (see Annex IV).

The best developed categories of services provided by the ports of Western Estonia are services for the crew and leisure facilities (see Annex VI), services available for the boat are basic, provision facilities are well developed but inland facilities need further development.

The most visited yacht harbour of Estonia is Pirita yacht harbour and also services, provided by Pirita port reach nearly 100%. Accordingly Pirita yacht harbour can be defined as full service yacht harbour or marina.

#### 4.3.5.3. Small commercial ports and yacht harbours of North Livonia

Ports in North Livonia have the following functionality:

- Parnu port (Estonia, Parnu municipality) – a small commercial and fishing port, yacht harbour;
- Jaagupi port (Estonia, Haademeeste municipality) – a non-operating port, currently used for coastal fishing (will obtain port status in 2006);
- Treimani port (Estonia, Haademeeste municipality) – a private operating port, used for coastal fishing and yachting (does not have official port status);
- Ainazi port (Latvia, Ainazi municipality) – a non-operating port (has official port status);
- Kuivizi port (Latvia, Salacgriva municipality) – an operating port, used for coastal fishing and yachting (administratively part of Salacgriva port);
- Salacgriva port (Latvia, Salacgriva municipality) – a small commercial and fishing port (sea and coastal fishing), yacht harbour;

- Skulte port (Latvia, Saulkrasti municipality) – a small commercial and fishing port with facilities for yachting.

A map of small commercial ports and yacht harbours is provided in Figure 4.9. (ports and harbour are highlighted with a red circle).



**Figure 4.9. Map of small commercial ports and yacht harbours in North Livonia**

Source: [www.latviancots.lv](http://www.latviancots.lv); Witteveen+Bos Latvia SIA

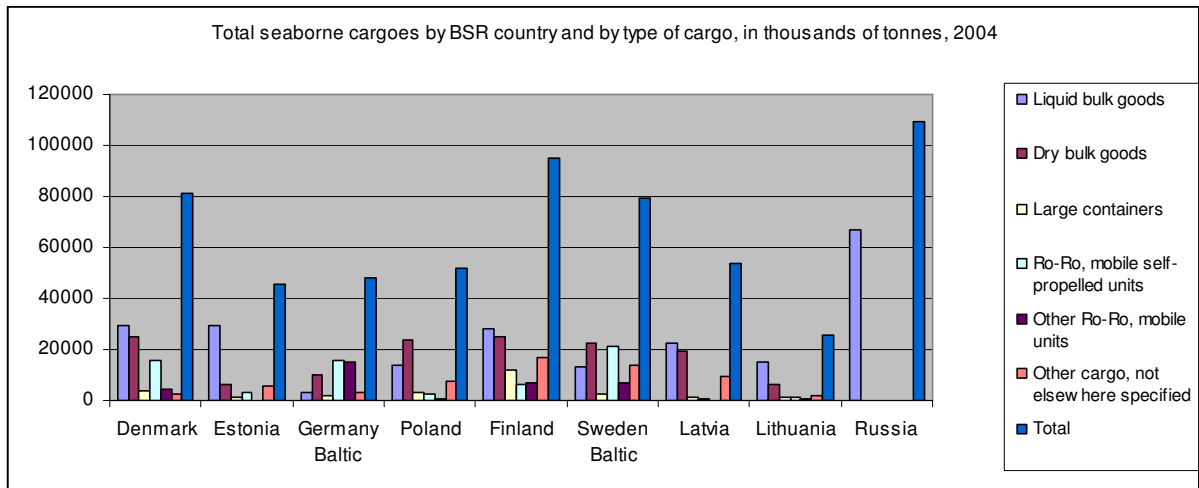
## 4.4. Demand for shipping services

### 4.4.1. Cargo shipping

Most of the cargo ports offer all shipping types – liquid and dry bulk, containers, Ro-Ro and general cargo in order to serve all market needs. In 2004 total seaborne cargo transported by the main ports (over 1 million tonnes per year) of the Baltic Sea was 590.3 million tonnes (see Figure 4.10.). The biggest share has the ports of Russia 19% or 109.6 million tonnes. The main products transported by ports of Russia are oil and oil products comprising 60% or 66.7 million tonnes from total amount handled by ports of Russia and 30% of total liquid bulk cargoes transported by the biggest ports of the Baltic Sea region in 2004.

Cargo structure of the Baltic Sea region ports (except ports of Russia) in 2004 was as follows: liquid bulk cargoes 32% or 154.4 million tonnes; dry bulk – 29% or 139.1 million tonnes; Ro-Ro – 21% or 100 million tonnes and containers – 5% or 26 million tonnes. If all the Baltic Sea cargoes are divided in bulk and general, the proportion is 60% bulk and 40% general cargoes.

The structure of cargoes for each country of the Baltic Sea region varies. There is quite even spread among types of cargo, for example, in Denmark 37% liquid bulk, 31% dry bulk, 25% Ro-Ro but in Estonia the dominant type of cargo is liquid bulk – 64%, dry bulk is 14, but Ro-Ro just 7%.

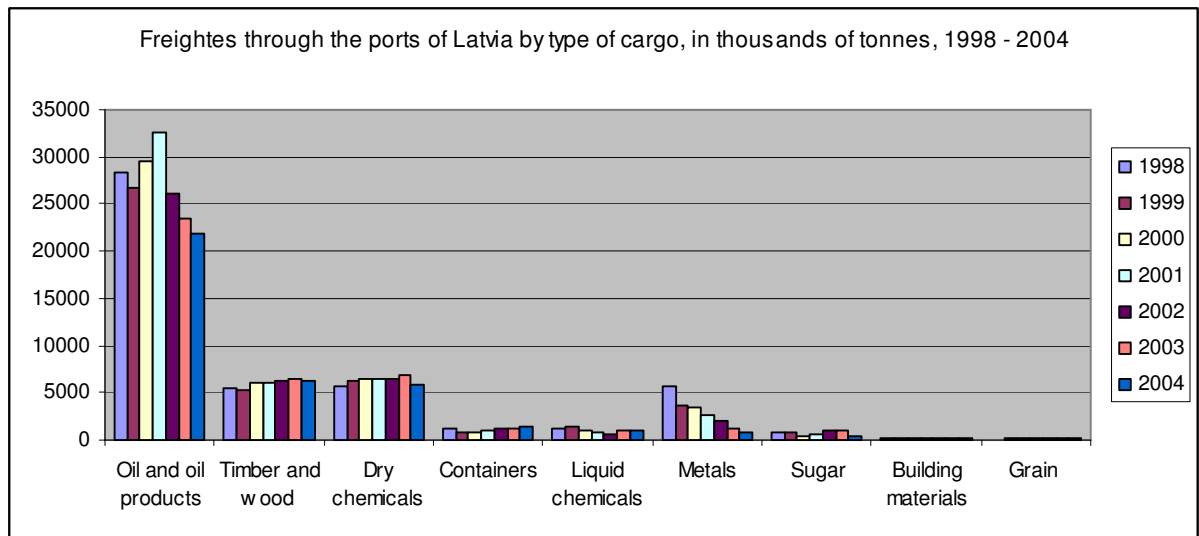


**Figure 4.10. Cargoes handled through the ports of the Baltic Sea region by type of cargo (in thousands of tonnes, 1998 - 2004)**

Source: EUROSTAT; Witteveen+Bos Latvia SIA

#### 4.4.1.1. Cargo shipping in Latvia

The total cargo turnover of Latvian ports in 2004 exceeded 57 million tonnes and comprises 9% of total cargoes handled by the ports of the Baltic Sea region (including Russia).



**Figure 4.11. Cargoes handled through the ports of Latvia by type of cargo (in thousands of tonnes, 1998 - 2004)**

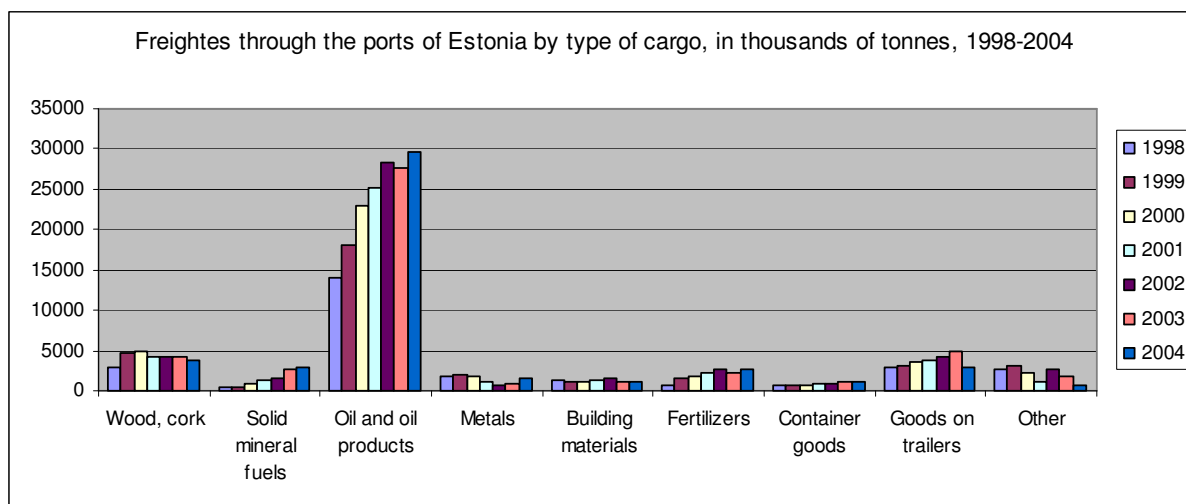
Source: Central Statistical Bureau of Latvia

Structure of handled cargoes in 2004 was as follows (see Figure 4.11.): 40% or 23.1 million t was liquid bulk cargoes, 41% or 23.6 million t - bulk cargo, and 19% or 10.7 million t - general cargo. The most important type of cargo was oil and oil products, which comprised 38% of all freight turnover, coal – 23%, timber and wood products – 11%, dry chemical bulk cargoes – 10%.

#### 4.4.1.2. Cargo shipping in Estonia

In 2004 the total seaborne cargo volume handled by the ports of Estonia amounted to 46.3 million tonnes. The handed volume comprised 8% of total cargo turnover made by the ports of the Baltic Sea region (including Russia). The increase of cargo volume in Estonian ports

was mainly due to an increase in the cargo volume of Port of Tallinn by 2.5 million tonnes. In 2004 the Port of Tallinn transported 37.4 million tonnes and reached 80.9% market share among the Estonian ports (in 2003 market share was 78.5%). The port of Parnu transported 1.8 million tonnes, but Port of Kunda transported 1.4 million tonnes of cargoes. Around 6 million tonnes of cargo was handled by other Estonian ports not exceeding 1 million tons turnover each (Roomasaare, Virtsu, etc.)



**Figure 4.12. Cargoes handled through the ports of Estonia by type of cargo (in thousands of tonnes, 1998 - 2004)**

Source: Statistical Office of Estonia

The main type of cargo handled by the ports of Estonia (see Figure 4.12) in 2004 was liquid bulk goods (oil and oil products) comprising 64% or 29.6 million t, 14% or 6.5 million t was dry bulk goods, 7% or 3.1 million t was Ro-Ro goods, but 2% or 1 million t comprised large container goods.

#### 4.4.1.3. Cargo shipping in North Livonia

In North Livonia there are only three small commercial ports, which provide cargo shipping services.

**Table 4.2. Cargo turnover of small commercial ports of North Livonia**

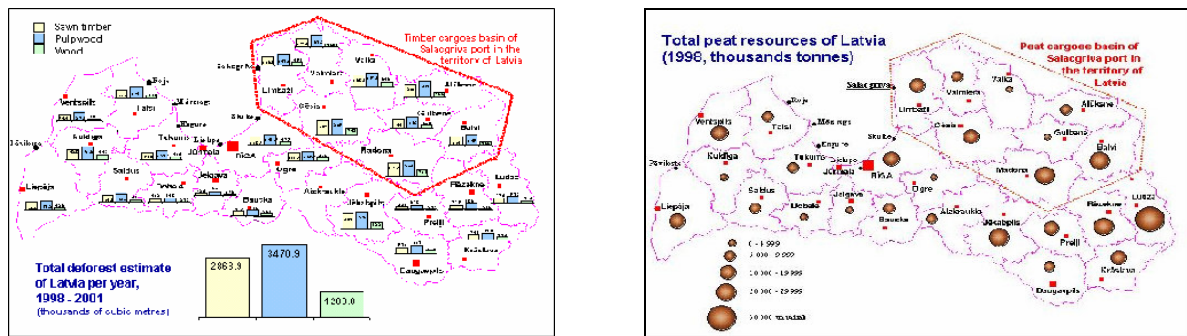
Name of the port	Territory of the port, ha	Number of berths	Maximum draught, m	Cargo flows 2004, thousand tons	Type of cargo % from total 2004					
					Timber	Wood granules	Woodchip	Construction materials	Peat	Fish
Parnu	26.0	22	6.3	1808.6	77.3	5.9	--	2.8	11.1	2.3
Salacgriva	14.4	6 (603.9m)	5.6	212.6	86.3	--	1.5	6	4	1.5
Skulte	59.2	420m	5.5	612	75.6	--	11	5	8	0.2

Source: information of ports collected by Witteveen+Bos Latvia SIA



The biggest commercial port of the region is the port of Parnu, which had a cargo turnover of 1.8 million tons in 2004 (2.3 times more than total turnover of both Latvian ports). On average more than 70% of cargo turnover amounts to timber (unprocessed wood). It is very characteristic for all small commercial ports in Latvia and Estonia to handle cargoes of low added value (big commercial ports handles cargoes with higher value added, e.g. liquid cargoes and containers).

Another characteristic feature for small commercial ports is limited cargo basin, which poses a constraint on increase of cargo turnover. In case of Salacgriva port the cargo basin includes Northern part of Vidzeme region in Latvia and Southern part of Parnu county in Estonia. As there are no railway connections (Parnu port forms an exception) to these ports, cargoes can only be delivered by road transport.



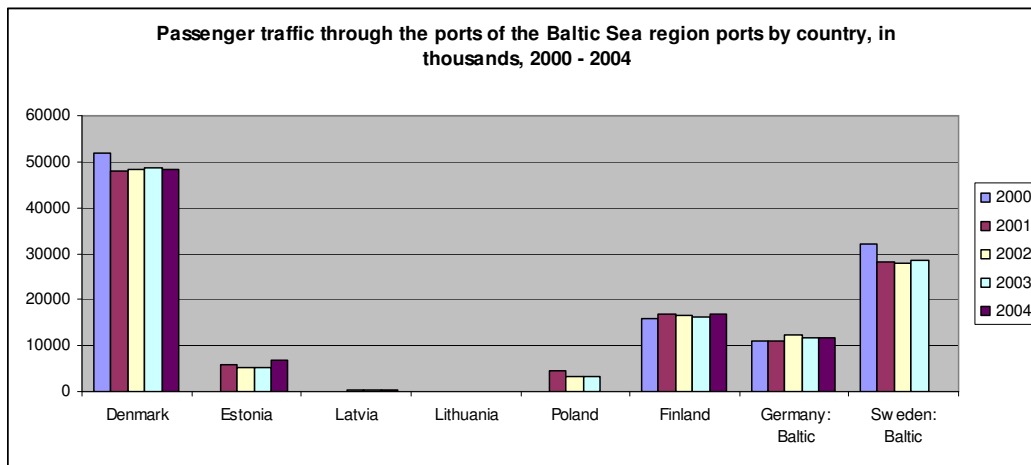
**Figure 4.13. Map of timber and peat cargo basins for Salacgriva port**

Source: Salacgriva port authority

The current utilization rate of capacity of Salacgriva port is 38%, which means that there is no strong demand for cargo shipping services fostering competition and creation of new commercial ports in the region.

#### 4.4.2. Passenger shipping

Passenger traffic in the Baltic Sea is very intensive transporting over the 100 million passengers annually. The main shipping type is ferries. The biggest passenger flow (approximately 43% in 2003) goes through the ports of Denmark (see Figure 4.12.). Accordingly Denmark has the biggest number (10 ports) of ports transporting over the 1 million passengers per year. Then comes Sweden (6 ports), Finland (2 ports), Germany (3 ports) and Estonia (1 port) transporting 25%, 14%, 10% and 5% of total passengers (2003) respectively. The largest passenger port in the region is Port of Helsinki with 8.5 million passenger turnover annually.



**Figure 4.14. Passenger traffic through the ports of the Baltic Sea region (passengers in thousands, 2000 – 2004)**

Source: EUROSTAT; Witteveen+Bos Latvia SIA

In general the demand for passenger transportation over sea has slightly increased over the last 4 years. Passenger turnover has decreased for Denmark and Sweden in comparison with year 2000 when the Oresund Bridge (the longest bridge in the world) connecting Denmark and Sweden was opened for public use (in mid 2000). It is a very good example showing that the ferry lines and also Ro-Ro lines are initially used to cross the sea but with the bridge in place, part of the passengers switch from the sea-borne transport to the bridge connection.

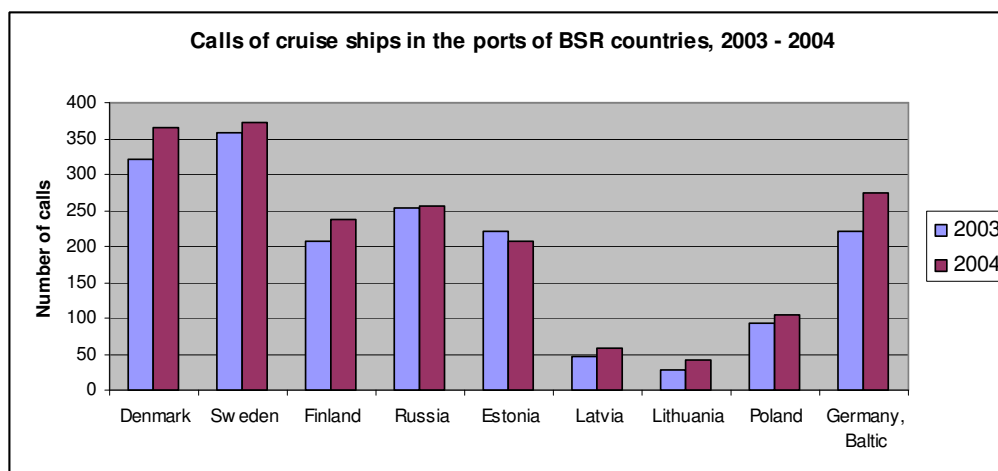
For the ports of Estonia (particularly for Port of Tallinn), a beneficial situation is caused by the absence of a sea crossing alternative (other than airplane) to reach Finland (particularly Port of Helsinki). Correspondingly both ports have quite a similar increase or decrease of shipped passengers. In 2004 the number of transported passengers by ports of Estonia comprised 6.9 million persons or 5% of all passengers transported by the ports of the Baltic Sea region (except Russia).

Number of passengers shipped by the ports of Latvia is quite insignificant - just 0.3 million passengers in year 2004. Ferry lines are quite undeveloped and not very popular.

#### 4.4.3. Cruise shipping

The total number of ships cruising the Baltic Sea is 63 (year 2004) operated by 43 cruise lines. The passenger capacity of ships is from as small as 48 persons up to as big as 2680 persons, but the average capacity is 873 passengers per ship. The total number of calls in the Baltic Sea ports was over 1900 in 2004. Leading cruise shipping ports are those of Denmark and Sweden (see Figure 4.13.) accommodating more than 350 cruise ships in 2004.

According to statistical data nearly all the Baltic Sea region ports are experiencing an increase of cruise calls and passengers. In 2004, in comparison with 2003, the average number of passengers attended by ports of Denmark has increased by 22%, Sweden - 10%, Finland - 22%, East-South Baltic – 14% (Riga – 13%, Tallinn – 5%), Germany - 27%. The overall increase of passengers in the all Baltic Sea ports was 18%. Nearly all of the ports have experienced also increase of cruise ship visits or calls in 2004 (overall increase of 9.4%). It can be concluded that the Baltic Sea cruise market is growing and has a potential for development.

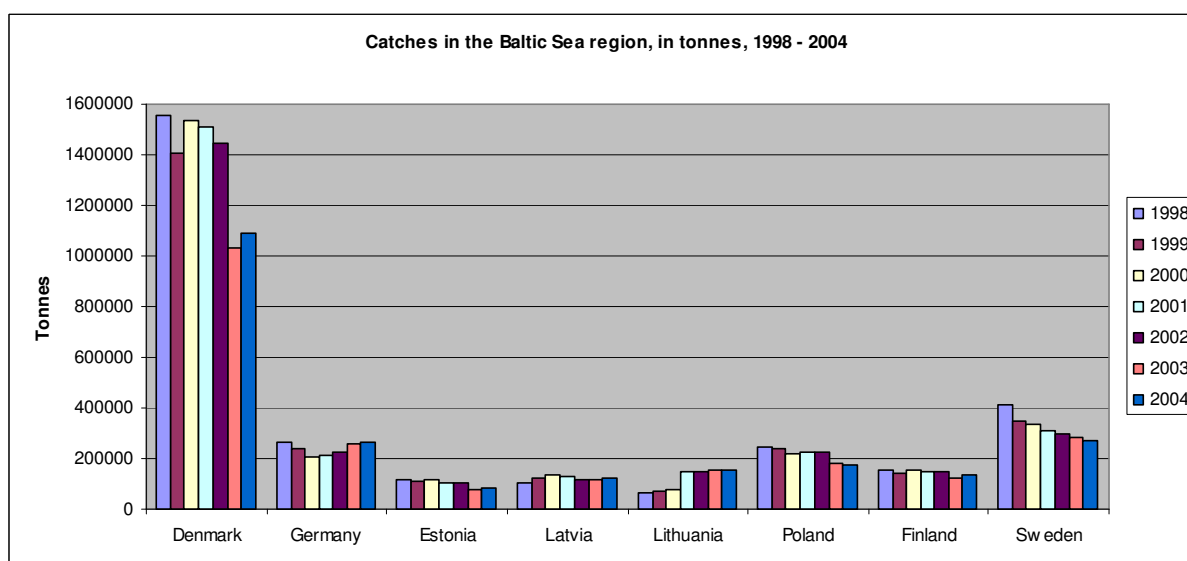


**Figure 4.15. Calls of cruise ships in the ports of the Baltic Sea region (calls, 2003 – 2004)**

Source: BSR Project, Regional Council of Päjät-Hämina

#### 4.4.4. Fishing

As it was mentioned before, the total catch of fish in the Baltic Sea region has decreased during last 6 years per 21%. During the last 4 years there is slight increase of catch for Lithuania (4%) and significant increase for Germany (24%). For the rest of the BSR countries catch tend to decrease (2 – 28%).



**Figure 4.16. Catch in the Baltic Sea region by country (catch in tonnes, 1998 – 2004)**

Source: EUROSTAT

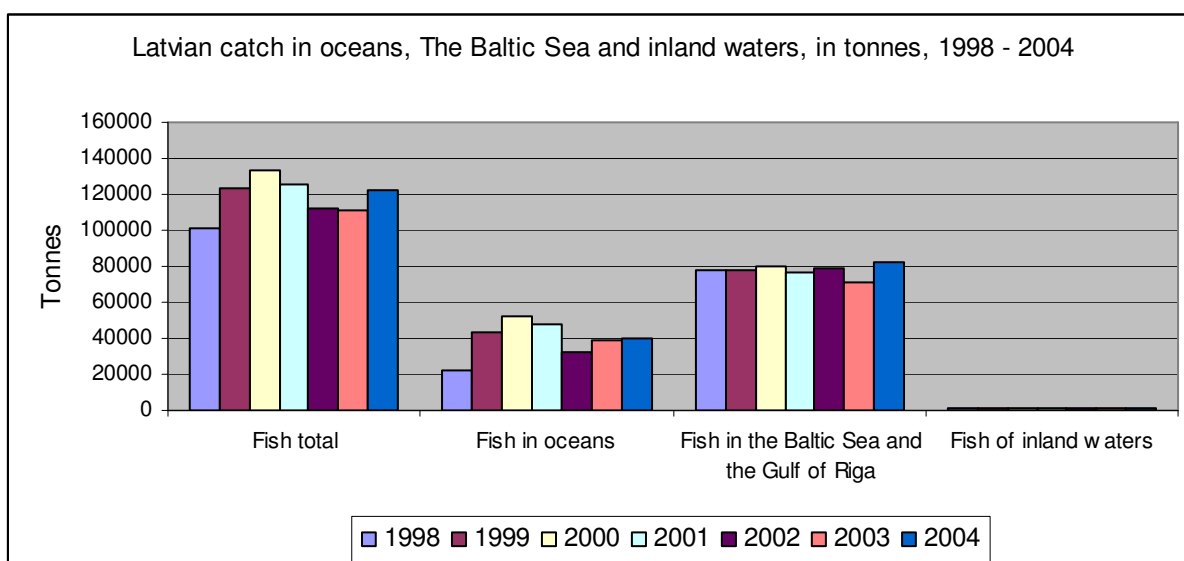
The leading fish catch country in the Baltic Sea region is Denmark comprising 47% or 1.1 million tonnes of total Baltic Sea region countries catch (see Figure 4.16.). Then come Sweden and Germany with 12% and 11% respectively. Estonia and Latvia catch is 4% and 5% respectively front e total catch of BSR countries.

##### 4.4.4.1. Fishing in Latvia

Figures of total catch of Latvia during the last 7 years do not show constant increase or decrease (see Figure 4.17.). The total catch has decreased significantly during the years 2000 – 2002 by 17%, but in year 2004 it is again increasing and has reached 1.2 million t or nearly the level of total catch of the year 2001. The catch in the Baltic Sea and the Gulf of



Riga has decreased in 2003 by 11% in comparison with 2000, but in 2004 there is 2% increase in comparison with year 2000.

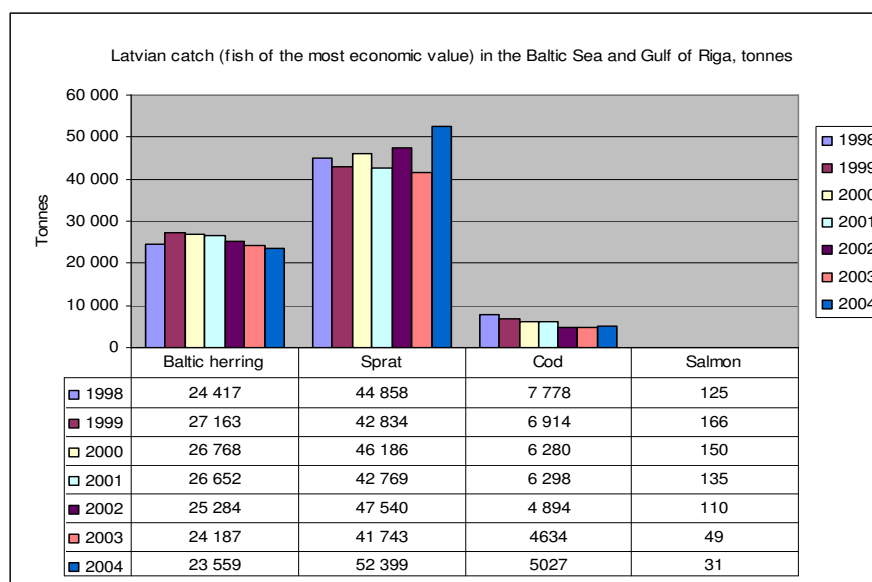


**Figure 4.17. Latvian catch in ocean, the Baltic Sea and inland waters (catch in tonnes, 1998 – 2004)**

Source: The National Board of Fisheries, the Ministry of Agriculture of the Republic of Latvia

32% of the total Latvian catch in 2004 is the high seas fishery performed in Eastern, Central and Northwest Atlantic fishing area and carried out in conformity with signed commercial agreements. 67% of the total Latvian catch in 2004 is sea and costal fishery performed in the Baltic Sea and the Gulf of Riga. 99% of the total catch volumes in the Baltic Sea and beyond the coastal waters of the Gulf of Riga consist of the species of main economic value such as sprat, Baltic herring, cod and salmon (see Figure 4.18.).

The Baltic Sea catch mostly consists of sprat, cod, salmon and Baltic herring by-catch in sprat fishing. The catch in the Gulf of Riga consists of Baltic herring and sprat by-catch in Baltic herring fishing. The catches of Baltic herring in the Gulf of Riga during the years 1999 – 2004 have decreased by 13%. The catches of cod and salmon in the Baltic Sea have decreased constantly during the years 1998 – 2004 by 35% and 81% respectively. There is no constant increase of decrease of catch of sprat in the Baltic Sea. The catch of sprat in 2004 was the highest during the last 7 years.



**Figure 4.18. Latvian catch in the Baltic Sea and the Gulf of Riga (catch in tonnes, 1998 – 2004)**

Source: The National Board of Fisheries, the Ministry of Agriculture of the Republic of Latvia

Table 4.3. presents fishing quotas for Latvia (for more information, reference is made to Chapter 5.1. “Transport, maritime, tourism and fisheries policies of the European Union”).

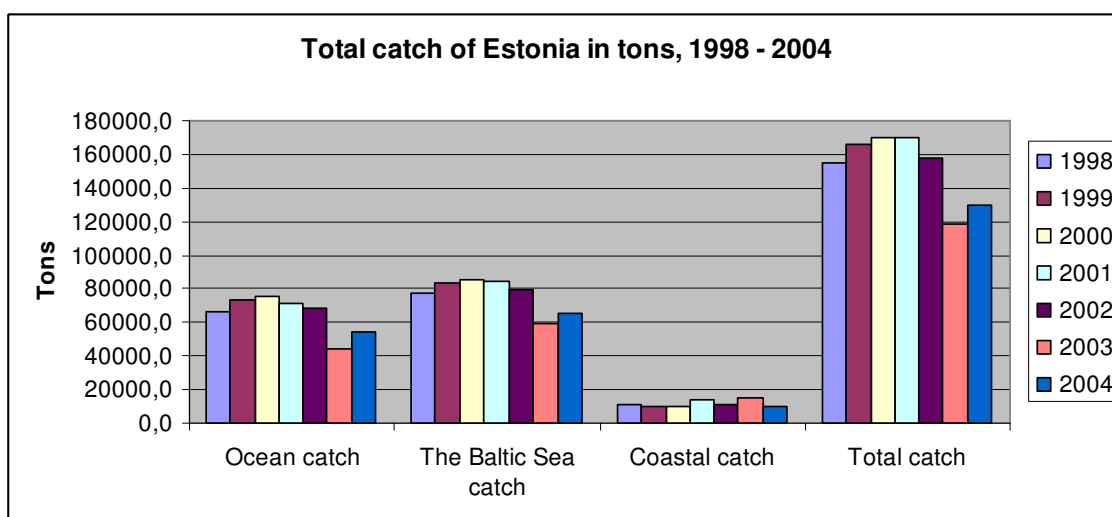
**Table 4.3. Amount of fishing quotas of Latvia, 2004 – 2006**

	Latvia		
	2004	2005	2006
Cod, tons	4170	4223	+15% (2005)
Northern Prawn, tons	144	144	
Red fish, tons	1571	2133	
Salmon, units	59478	59478	59478
Herring, tonnes	9834		
Herring Baltic Sea, tons		3262	3212
Herring Gulf of Riga, tons		20452	21528
Sprat, tonnes	52249	68420	58219

Source: EU Fisheries and Maritime Affairs, National Board of Fisheries of Latvia

#### 4.4.4.2. Fishing in Estonia

The total catch of Estonia consists of high seas fishing or ocean catch, the Baltic Sea catch and coastal catch. In 2004 (see Figure 4.17.) the structure of the total catch consisted of 50% or 64902 t of the Baltic Sea catch, 42% or 54425 t - oceans catch and 8% or 10476 - coastal catch. Over the years 1998 – 2004 there is decrease of total catch by 16.5%, but in 2004 there was a slight increase in comparison with 2003 by 9%. It can be explained by increase of ocean and the Baltic Sea catch.



**Figure 4.19. Estonian catches in ocean, the Baltic Sea and coastal catch (catch in tonnes, 1998 – 2004)**

Source: Statistical Office of Estonia

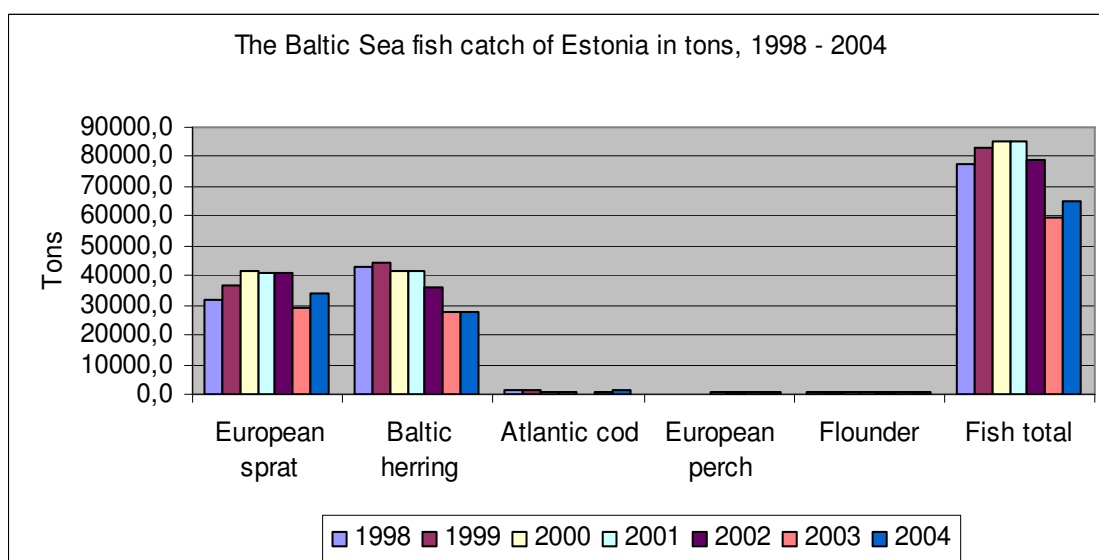
In Table 4.4. there are provided fishing quotas for Estonia.

**Table 4.4. Amount of fishing quotas of Estonia, 2004 – 2006**

	Estonia		
	2004	2005	2006
Cod, tonnes	1097	1112	
Northern Prawn, tonnes	144	144	
Red fish, tonnes	1921	1915	
Salmon, units	12759	11085	
Herring, tonnes	14536		
Herring Baltic Sea, tonnes		13218	
Herring Gulf of Riga, tonnes		16972	
Sprat, tonnes	43260	56650	

Source: EU Fisheries and Maritime Affairs

The main species comprising 95% or 61493 t (2004) of the total catch of Estonia in the Baltic Sea are European sprat and Baltic herring (see Figure 4.18.). Catch of Baltic herring between 1998 and 2004 has decreased by 36%, at the same time in 2004 remained at the level of 2003. Sprat catch has slightly increased between 1998 and 2004 by 6%, but it remains lower than in 2000 when it was the highest (41393 t) during the last 7 years.



**Figure 4.20. Estonian catches in the Baltic Sea (catch in tonnes, 1998 – 2004)**

Source: Statistical Office of Estonia

The total coastal catch of Estonia mostly depends on resources of Baltic herring because this type of fish comprises 79% or 8320 tons of the total coastal catch (2004). There is no constant decrease or increase of coastal fishing but there is fluctuation each 2 years by approximately 25%.

#### 4.4.5. Yachting (recreational boating)

There is no joint statistics of calls of yachts available for the entire Baltic Sea region, but from the boat statistics of the EU states it is possible to see that recreational boating potential is around 6 million boats (see Table 4.5.).

**Table 4.5. Number of boats in the EU countries**

EU Countries	Boats Thousands	Inhabitants Millions	Inhabitants per boat
Austria	28	8	289
Belgium	15	10	680
Denmark	366	5	14
Estonia	14.6	1.3	89
Finland	690	5	7
France	1 369	59	43
Germany	420	81	193
Greece	100	10	103
Italy	800	57	71
Ireland	10	4	370
Latvia	8.6	2.3	267
Lithuania	n.a.	3.6	n.a.
Luxembourg	4	0	100
Netherlands	500	16	32
Poland	82	38.6	471
Portugal	25	10	400
Spain	130	39	300
Sweden	1 245	9	7
United Kingdom	500	60	120

Source: <http://www.eba.sida.nu/>

According to the European Boating Association, distribution of boats by type differs in each country. For example, in Denmark from total number of 366 000 boats, roughly 41 000 (11%) are over 8 m. Of the total, around 220 000 (60%) are outboard-powered motorboats, 25 000 (7%) inboard-engine motorboats, 53 000 (15%) sailboats, and around 68 000 (19%) others, which include inflatable boats, sailboards and personal watercraft. In Finland sailboats comprises only 3%, in Germany - 30%, but in Sweden – 17% of the total number of watercraft.

Length of yachts may range from 15 feet (4.5 m) to over 100 feet (30 m), with larger yachts in the 200-500 feet (61-152 m) range. Due to the exponential rise in cost as size increases, however, the vast majority of yachts used by private enthusiasts are between 20 and 50 feet (6-15 m) in length. Yachts used for racing in excess of 70 feet (21 m) are often referred to as maxi yachts, though this definition is somewhat loose.

The research on boat tourism segment in the Baltic Sea made by the SINTEF Group showed that 84% of the total 665 respondents were men, mainly coming from Norway (38%) and Germany (30%). The typical respondent works in the private sector (46%) and he has a degree from a University/College (56%). He uses his own boat (87%), which is a sailboat (72%) with the average size of 33 feet. He travels with friends (73%), and 3 persons is a typical group size. The average boat tourist in this region does not travel with kids. The average trip lasts for 21 day, visiting in average 11 harbours. The length of stay in each harbour is short, only 1.8 nights on average.

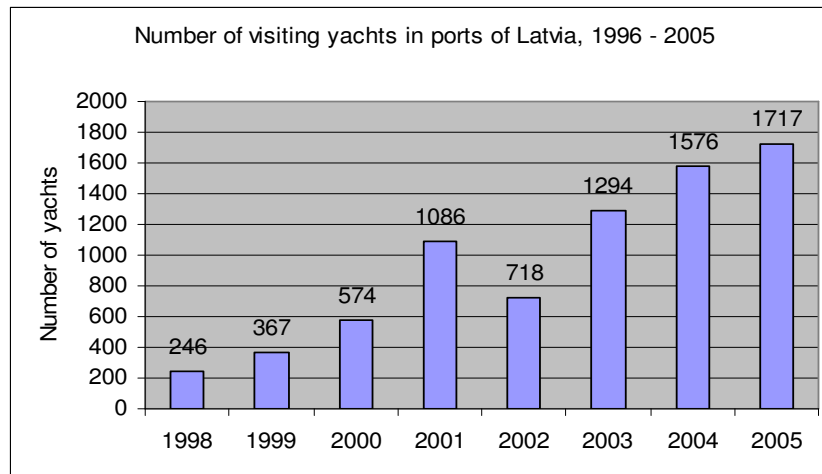
A boat trip lasting 3 weeks on average requires a lot of planning. On average, the boat tourists planned their trip 9 weeks in advance. The main reasons for choosing a travel route were: attractive shore (56%), been here before (45%) and attractive destinations/harbours (37%). The main sources of information for planning of trip were: recommendations (92%), harbour books (56%) and sailing magazines (43%). Only 14% used Internet as an information channel for planning the trip.

The main reasons for visiting of specific harbour were: good harbour facilities (71%), land based activities (46%) and coincident (37%). The most common land based activity among the boat tourists is shopping (71%). 67% visit restaurants and bars on their trip and 43% visited attractions. 25% of the respondents replied that the detailed information about onshore facilities and inland would influence their length of stay at a destination harbour.

#### 4.4.5.1. Yachting (recreational boating) in Latvia

According to Road Traffic Safety Directorate of Latvia, there are 2899 registered rowboats, 3995 motorboats (up to 12 m of length), 408 cutters (up to 12 m of length) and 640 water-bikes in Latvia. According to the Maritime Administration of Latvia, there are more than 650 registered yachts and 28 motor-yachts (more than 12 m of length).

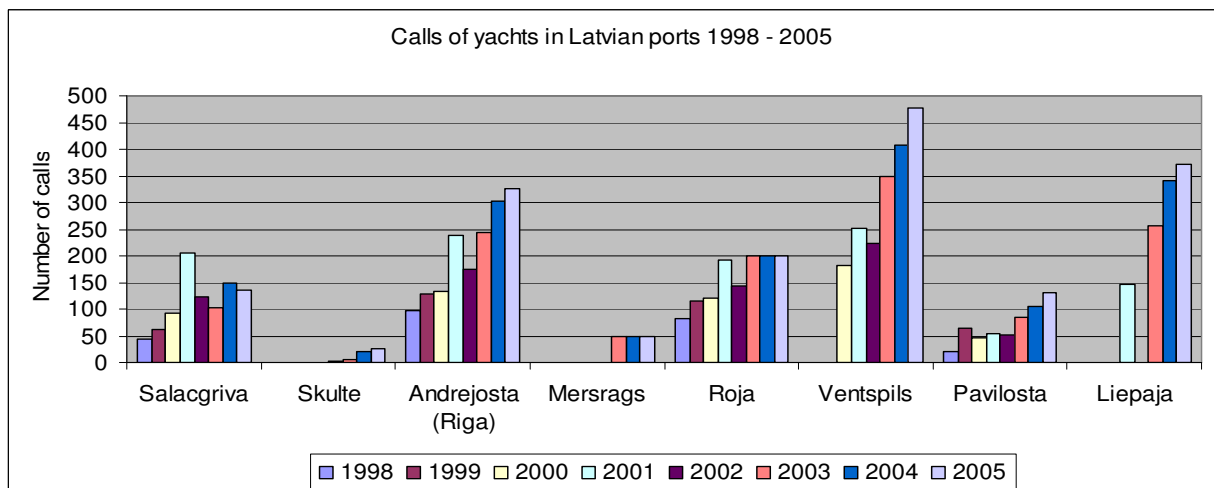
Over the last five years the number of visiting yachts has nearly doubled from 1086 calls in 2001 to 1717 calls in 2005 (see Figure 4.21.).



**Figure 4.21. Calls of yachts in the ports of Latvia (number of calls, 1998 – 2004)**

Source: Information of Latvian ports collected by Witteveen+Bos Latvia SIA

The biggest number of the visiting yachts in 2005 has been accommodated in Ventspils yacht harbour – 478 boats (see Figure 4.22). Approximately 90% of all calls in yacht harbours of Latvia are made by international residents.



**Figure 4.22. Calls of yachts by the selected port of Latvia (number of calls, 1998 – 2004)**

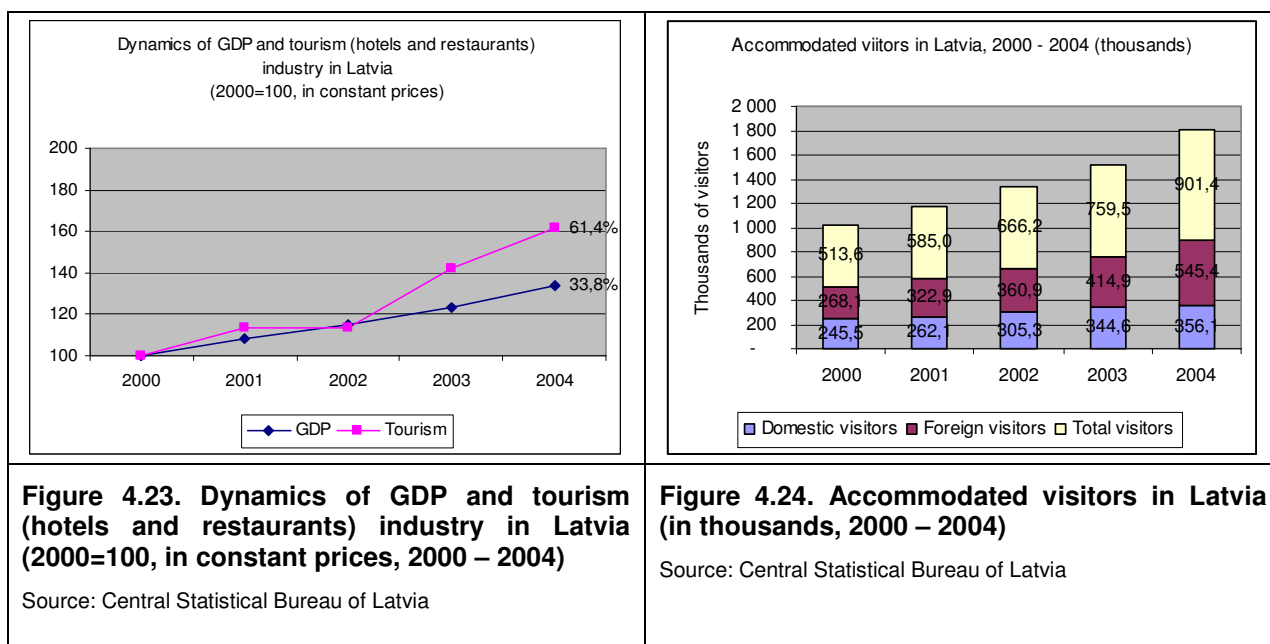
Source: Information of Latvian ports collected by Witteveen+Bos Latvia SIA

It has to be noted that an important driving force for yachting related services is domestic demand.

Recreational boating market is influenced by several factors: general increase of living standard, growing GDP (see Figure 4.23.) and increasing tourism industry. Membership of Latvia in the EU has opened doors to many visitors from other member states providing steady increase in number of visiting tourists. Accommodated tourists, both domestic and foreign, have nearly doubled from 513 thousands in 2000 to 901 thousands in 2004 (see Figure 4.24).

Demand for yachting to much extent is influenced by demand of leisure activities outside the populated urban areas. People living in the big urban cities (mainly in Riga) have limited possibilities to spend their free time in an open air. Yacht harbours and especially marinas in many countries are considered as part of inland recreational activities, where service of a yacht harbour is only one part in the chain of tourism services (co called concept of a full service marina). Therefore, two main factors influence the domestic demand for yachting infrastructure: the willingness of local residents to purchase watercraft and use it for

recreational purposes and the interest of domestic tourist to attend marinas and use charter boats for sailing as part of their multipurpose leisure activities.



Positive incoming tourism (both water way and hinterland) trends and steadily growing domestic demand for recreational services are the main precondition for the demand of recreational boating services in Latvia.

#### 4.4.5.2. Yachting (recreational boating) in Estonia

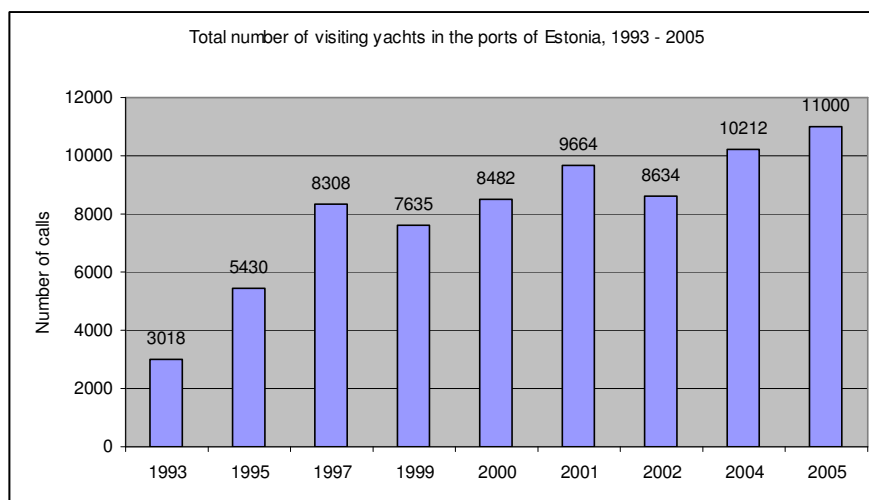
According to the Estonian Maritime Administration, there are 8542 registered rowboats, 5833 motorboats and cutters, and 186 yachts in Estonia. The biggest number of yachts is registered in capital of Estonia (see Table 4.6.).

**Table 4.6. Register of Small Craft of Estonia (as on the 1<sup>st</sup> January 2005)**

Name of the unit	Motorboats	Rowboats	Yachts	Total
Tallinn	1382	2140	108	3630
Haapsalu	338	668	21	1027
Kuressaare	474	987	19	1480
Pärnu	623	478	17	1118
Tartu	1753	2135	10	3898
Jõhvi	1263	2134	11	3408
Kokku/Total	5833	8542	186	14561

Source: Estonian Maritime Administration

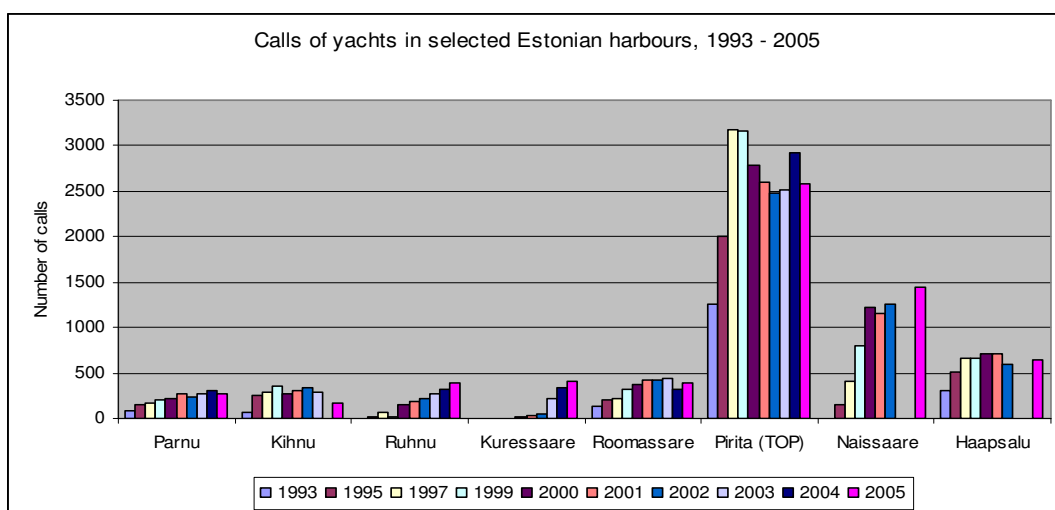
The total number of calls in all Estonian ports accommodating yachts in 2005 was 11000 (see Figure 4.25.), increased by 8% in comparison with the previous year. The amount of incoming yachts has doubled over the last 10 years, but since year 2000 the increase is 30%. In comparison with number of incoming yachts in the ports of Latvia the ports of Estonia accommodate five times more yachts.



**Figure 4.25. Calls of yachts in the ports of Estonia (number of calls, 1998 – 2004)**

Source: Information of Estonian ports collected by Witteveen+Bos Latvia SIA

The leader of the yacht harbours of Estonia is Pirita Marina with calls between 2500 and 3000 annually comprising 24% of total yacht calls in 2005. The main reasons that favours to these results are: location in capital of Estonia, closeness to big sailing market of Finland and historical development – the capital investments for yacht harbour infrastructure were made in the framework of the Olympic Games in 1980. But in general data of calls in yacht harbours of Estonia shows increase or stable number of incoming yacht calls each year (see Figure 4.26.).



**Figure 4.26. Calls of yachts by the selected port of Estonia (number of calls, 1998 – 2004)**

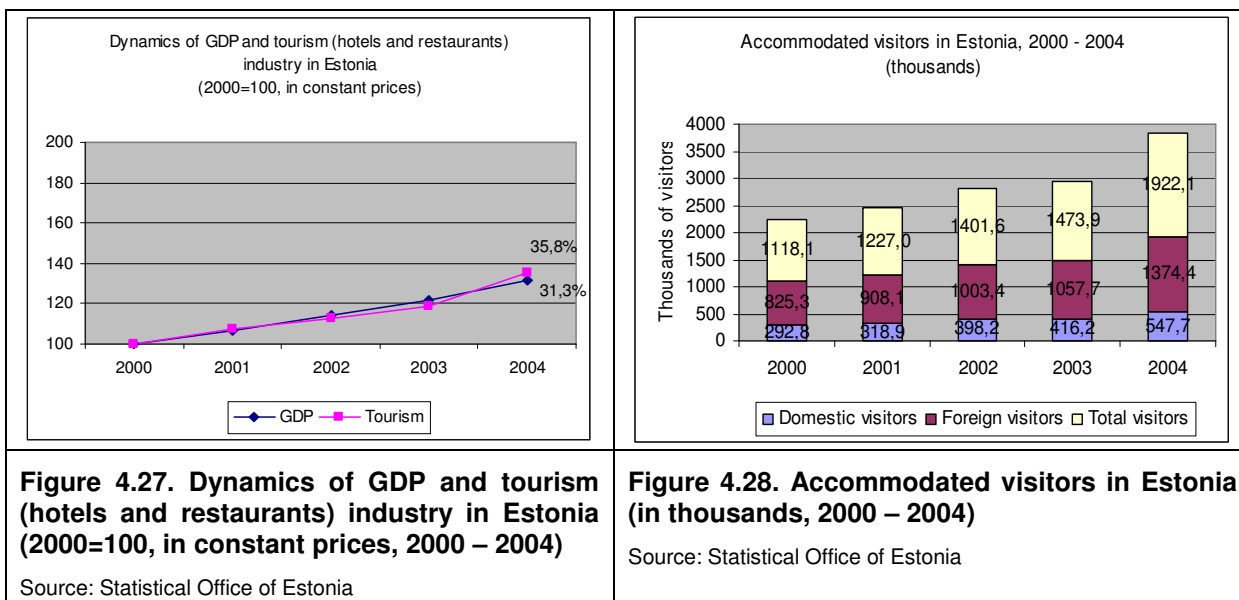
Source: Information of Estonian ports collected by Witteveen+Bos Latvia SIA

Changes in incoming yacht trends are mainly influenced by two factors – the structure or proportion of number of permanent and visiting berths; and the size of inner harbour which determines capacity of total number of yachts possible to accommodate. A good example is Kalev Yacht Club having capacity for 95 yachts (75 for permanent yachts and 20 for visiting yachts). According to statistics in 2001 the harbour received the biggest number of incoming yachts – 724. Since then, according to the information provided by harbour officials, the number of calls is decreasing not because of poor services or decreased demand for calling the harbour, but due to the increase of permanent berths contracts (which is more profitable and stable) and the lack of space for enlargement of the port to construct new berths for visiting yachts. Harbours having enough space for enlargement of the harbour raise funds to expand the harbour and increase number of berths. A good example is Kuressaare Marina



already implementing Stage II development with 68 new berths, which will be completed in 2006. At the end of Stage II it will be possible to accommodate 132 yachts in one time.

Development indicators for Estonia in general and the tourism industry are positive and growing. The GDP has increase by 35.8% (see Figure 4.27.) since the year 2000 and the tourism industry increase also is 31.3%. Accommodated tourists have reached 1.9 million persons in 2004 and in comparison with year 2000 it has nearly doubled (see figure 4.28.). The both domestic and foreign accommodated tourists are increasing with each year.



Like in Latvia, there is also a growing domestic market for recreational boating (purchase of watercraft and water leisure activities by using charter yachts).

#### 4.4.5.3. Yachting (recreational boating) in North Livonia.

Table 4.7. provides the key statistical data about yacht harbours in the North Livonia region.

**Table 4.7. Yacht harbours of North Livonia, Estonia and Latvia**

Name/Indicator	Number of visitor berths	Number of regular berths	Max length	Max draught	Blue flag (years of award)	Number of calls (year 2005)
Parnu	30	60	16 m	3 m	1994-2005	273
Salacgriva	25	Not designated	n/a	2.5 m	--	136
Kuressaare	81	15		2.5 m	2004-2005	411
Roomassare	50	20	30 m	3 m	1998-2005	386
Kihnu	Not designated	n/a	30 m	2.6 m	n/a	172
Ruhnu	Not designated	n/a	35 m	2 m	n/a	386
Pirita TOP (Tallinn)	90	220	50 m	2.8 m	1994-1997	2588
Andrejosta (Riga)	50	40	n/a	5.5 m	2000	325
Kalev Yacht Club (Tallinn)	20	75	50 m	2.8 m	1996-2003	150
Haapsalu GHM	70	n/a	24 m	2 m	1995-2000	643

Source: information from ports collected by Witteveen+Bos Latvia SIA

It can be seen from the table above that the NLCR yacht harbours with the highest capacity are in Estonia, namely, Parnu, Kuressaare and Roomassare.

The leading yacht harbour (marina) in both countries is Pirita TOP marina, which has 310 yacht berths. The biggest marina in Latvia is Andrejosta, which can provide 3 times less mooring places than Pirita TOR marina.

Annex VII gives a summary of analysis of reasons why international yachting community would be willing to use yacht harbours of North Livonia, including dry docking. The summary has been prepared on the basis of experience in development of marinas worldwide.

## 5. Transport, maritime and tourism policies in the Baltic Sea region

### 5.1. Transport, maritime, tourism and fisheries policies of the European Union

History of the EU **Common Transport Policy** goes back to the Treaty of Rome when the need for the European transport network was recognized as one of the means towards European integration. The Treaty of Rome called for Common Transport Policy and established very broad framework for co-operation and integration without determination of specific infrastructure development. The European Regional Development Fund was established in 1975 to support transport infrastructure development.

The Cohesion Fund was established in 1993 through a provision of the Maastricht Treaty on European Union, and was designed to assist the least prosperous member states in their preparation for the EU. It is separate from the structural funds (ERDF, FIFG and others) and is based on the EU member states rather than regions. The Cohesion Fund finances large scale projects (investment costs exceed 10 million EUR) in two main areas - transport and the environment. Projects must have a significant impact on protection of environment and development of TEN network.

In 1992 the White paper on Transport Policy was published by the European Commission. By the Essen Summit in 1994 were approved TEN 35 priority and 14 special priority projects. The TEN guidelines as approved in 1996 had another new feature and that was the development of intelligent transport. New guidelines for the development of the trans-European transport network were adopted in 2004 by decision No 884/2004/EC of the European Parliament and the Council including 31 transport investment projects.

Already from the beginning of 90's the EU experiences unequal growth in the different modes of transport. In 10 years the road transport takes 44% of the goods transport market compared with 8% for rail and 4% for inland waterways. On the passenger transport market, road accounts for 79%, air for 5% and rail for 6%. In 2001 the new White Paper was introduced – “European Transport Policy for 2010: time to decide”. One of the measures identified in this policy document is shifting the balance between modes of transport by 2010 by revitalizing railways, promoting maritime and inland waterway transport and linking the different modes of transport. There is need for better co-operation between maritime corridors, ports and hinterland logistic activities. Besides, the European Commission wants to ensure that the transportation services are efficient, high quality and safe.

EU reviews the Baltic Sea region as significant transportation region being able to offer realistic alternative. The region consists of various countries and different political and cultural backgrounds, but all of them have tradition to trade across the national border using the Baltic Sea. During the 20th century, with the fall of the “Iron Curtain”, these relations have been more nationally oriented with the stronger development of North - South direction, but the East – West direction have weakened, even between Scandinavian regions it has been very difficult to establish cross-border connections.

With enlargement of the European Community and accession of Estonia, Latvia, Lithuania and Poland the Baltic Sea has become an internal sea of the EU (except territory of Russia) and practically arterial route for logistical communications between 8 from 25 member states. From logistical point of view the Baltic Sea region can be viewed as single producing and consuming market and to a certain extent an integrated economical power, offering services to the world market. Besides, the region is a transit gateway to CIS and industrial and logistical platform for industries acting in CIS.

The new **European Maritime Policy** – The Green Paper is currently being elaborated. It is expected to be accepted by the mid of 2006. The Policy will cover very wide range of sea and coastal development aspects including all maritime sectors, in particular those with

existing competitiveness challenges (e.g. shipbuilding, shipping, ports) and those with growth potential (e.g. biotechnology, renewable energy, ICT, coastal engineering, tourism, logistics). The greatest value of The Green Paper will be the complex view to the different but at the same time related areas taking into account that: 20 of the 25 EU member states have coastline in total almost 70 000 km long; nearly half of the EU population lives less than 50km from the coast; the strategic importance of the 1200 EU ports is constantly increasing (around 90% of foreign and 40% of internal trade is carried by the sea). The new EU Maritime Policy will put importance also to the development of fisheries, aquaculture sector as well as coastal and marine tourism, which is a source of income and jobs that the Community has to maintain actively. The growth forecasts for these areas are of 3% a year for the period 2005 – 2009. Well regulated coastal tourism can be a major contributor to the regional economy as well as to the sustainable development of coastal areas, in particular.

The **Common Fisheries Policy** of the EU has developed since 1970, taking into account the mutual equilibration of the main aspects of fishery – biological, economical and social. The CFP was completed in 1983, reviewed in 1992 and at the end of 2002. The new Common Fisheries Policy is in force from January 1, 2003. The main changes under the new CFP are:

- long term approach by setting long term objectives concerning fishing opportunities and related measures (before have been taken annually);
- new policy for the fleets provides two sets of measures to prevent chronic overcapacity of the EU fleets – a simpler fleet policy for matching fleet capacity with fishing possibilities and phasing out of public aid to private investors to help them renew or modernise fishing vessels;
- stakeholder involvement by creating regional advisory councils.

The ultimate goal of CFP is to reach a sustainable balance between the needs of the fishing sector and the available fish stocks. The basic tool for catch regulation is quota system. For the high seas fishing national quota allocation and conservation measures are based on Northwest Atlantic Fisheries Organization (NAFO) and the Northeast Atlantic Fisheries Commission (NEAFC). Fishing opportunities in the Baltic Sea are based on the assessment of the fish resources by International Council for the Exploration of the Sea (ICES). On the bases of the scientific recommendations of the Council, the International Baltic Sea Fishery Commission determines annual fishing quotas for each of the Baltic Sea region country. The Council of Europe sets annual total allowable catches (TAC) for regulated fish species for all EU Member States. Further each country divides the quotas among the fishing enterprises according to the legislation of the particular country.

In September 2005 IBSFC has finished its existence and in future (beginning with January 1<sup>st</sup>, 2006) functions of international fishing regulation in the Baltic Sea will take over bilateral Common Fishery Committee of the EU and Russia. Quotas allocated for 2006 are based on IBSFC recommendation.

The main EU structural assistance in the fisheries sector is performed by the Financial Instrument for Fisheries Guidance. The latest rules and arrangements are from 1999 and cover programming period 2000 – 2006. For this programming period FIG amount allocated to Estonia is 12.47 million EUR and to Latvia 24.34 million EUR.

Important measures under FIG include:

- *Regulation of the Fishing Capacity of the Fishing Fleet.* The general objective of the measure is to provide a balance between the fishing capacities of the fleet and the fish stocks available;
- *Modernization and Renewal of the Fishing Fleet.* This aims to improve technical conditions on fishing vessels; improve fish processing conditions, improve working conditions and occupational safety; and promote the introduction of selective fishing techniques;

- *Investment Support Measures for the Fisheries Production Chain.* General objectives are to develop and modernize fish and aquaculture processing; develop and modernize aquaculture; improve conditions for the reception of the fish in ports and fish landing sites; and facilitate investment in inland fisheries;
- *Other Fisheries-Related Measures.* These aim to provide opportunities to mitigate unfavourable social and economic impacts of restructuring of the fisheries sector, with identification of new markets for fish and aquaculture products.

## 5.2. Transport, maritime, tourism and fisheries policies of Latvia and Estonia

### 5.2.1. Latvia

Transport development in Latvia is based on “The National Transport Development Programme” for the period of 1996-2010 approved in November 14, 1995 by the Cabinet of Ministers of the Republic of Latvia and the Mid-term programme for the period 2000-2006. Its goal is to establish an efficient, safe, multi-modal, integrated and competitive transport system, which will also contribute to the environmental and safety objectives.

During the 2004-2006 programming period It is envisaged to use the co-financing by the Cohesion Fund to develop the transport corridors of international importance – TEN-T network, hence all projects related to TEN-T (road and rail) are eligible for assistance under the Cohesion Fund, including:

- The construction of access roads to Ventspils and Liepaja ports, as well as improving of traffic situation in Riga, including the construction of a new Daugava river crossing;
- Further development and increase of competitiveness of the infrastructure of Latvia large ports, as well as the development of ferry traffic.

Taking into account the new EU transport policy that orientates on development of environmentally friendly transport means and the large share of transit freight in the total transport services, it is envisaged to divert 45% of the EU funding to railway projects in the programming period for the years 2004-2006. It is envisaged to promote the short sea shipping and maritime transport (development of port infrastructure and access routes) using Cohesion Fund support. The support of structural funds (e.g., ERDF and ESF) will be diverted to regional port development (not included in the TEN-T). The measures supporting the public transport and transport organisation in urban areas also will be addressed from support of the structural funds.

The main groups of projects co-financed by the ERDF:

- Improvement of the 1st class roads of regional importance;
- Optimisation of the city transport system organization and traffic safety improvements in Riga and other urban areas;
- Improvement of seaport’s infrastructure and sea - side accessibility;
- Modernisation of passenger railway rolling stock.

Development of yacht ports is not mentioned in the planning documents of Latvia. It is considered as a part of the tourism industry, therefore relation of yacht harbours to transport sector is very limited.

According to planning documents of Latvia - “Basic formulations of sustainable development of Latvia” (2002) and “Long-term economic strategy of Latvia” (2001) where national economy is oriented to services with high value added, tourism is considered as one of the strategic opportunities and priorities of development of Latvia.

Development of Latvian tourism industry is based on the guidelines determined by EU, Council of Europe, World Tourism Organization, World Travel and Tourism Council and other international documents. At the same time Latvia continues development of national legal standards and policy for balanced development of tourism. The main planning document determining the tourism policy and priorities of Latvia for the next 5 years is "Tourism development policy of Latvia basic formulations" worked out in 2004. According to the document the main objective and priority of the Tourism development policy of Latvia is to reach the increase of tourism industry proportion in the Gross Domestic Product by positioning and promoting Latvia in the international market as distinctive, safe and recognizable tourism destination increasing tourist flow to Latvia and encouraging development of the domestic tourism. In order to reach the objective the main action directions are determined as follows:

- positioning of Latvia as safe and recognizable tourism destination by highlighting distinctive, strengthening image of Latvia as country favourable for tourism and providing presence of Latvia in prior and perspective tourism markets;
- encouraging incoming and domestic tourism in Latvia by provision of favourable environment for entrepreneurship, development of appropriate and qualitative infrastructure, stimulating development of varied and new products and services according to interests of tourists, using tourism industry development achievements by technologies of communication and e-commerce, implementing management quality systems, developing human resources and research of tourism industry;
- facilitating cooperation by optimization of cooperation of public and private sectors, developing international collaboration and providing participation of Latvia in development of Europe and the world tourism development policy and representation of interests of Latvia.

It is expected that the tourism policy of Latvia will encourage increase of export of tourism services in average by 10-15% per year and the proportion of the tourism industry in the GDP of Latvia at the end of the period will reach 5-7%. As a result of focused tourism marketing incoming tourism flow will increase by 5-7% per year and income from foreign visitors is expected to increase by 15% per year. With diversification and new product development it is expected prolongation of the foreign visitors stay in the Latvia up to three days in average. Accordingly will increase entrepreneurship and employment in the industry and development of the regional tourism, especially for the depressive regions where tourism can be the main or even the only source for demand of goods and services.

To reach the tourism development objectives the financial support is planned to be allocated from the state budget (approximately 27 million EUR during the period 2004-2008) and from the EU structural funds (approximately 13 million EUR over the period 2004-2006).

In order to determine the priorities of the fisheries sector, two sub-programmes of "The National Development Program for the Fisheries Sector (1995–2010)" are elaborated:

- Fishing Fleet Development Programme (2001-2003);
- Fish Manufacturing Development Programme (2001-2006).

The Single Programming Document of Latvia (2004-2006) includes 4.4.2. Sub-priority "Promotion of Sustainable Fisheries Development". The measures for this sub-priority are:

- Adjustment of fishing effort;
- Fleet Renewal and modernisation of fishing vessels;
- Development of processing and marketing of fishery and aquaculture products, fishing port facilities and aquaculture;
- Development of coastal fishery, socio-economic measures, promotion of new market outlets and support to producer organisations.

The sub-priority is financed from the FIG. Measures covering improvement of fishing port external infrastructure, which are necessary in order to ensure other sector operations, are supported from the resources of the ERDF, but for training and re-qualification of employees in the fisheries sector – resources of the European Social Fund.

### 5.2.2. Estonia

According to the Single Programming Document of Estonia for the planning period for 2004 – 2006, the transport policy of Estonia is characterised by extensive privatisation of both the operator services and infrastructures, use of taxes and prices for regulating competition of transport modes and infrastructure policy that favours international connection routes (transport links).

Operator services are mostly provided by private enterprises. Sea transport, inter-urban bus traffic and air traffic are all organised by private companies.

The modernisation of the roads connecting the country's East and West will secure a competitive position for Estonia in the ever-growing market of transit freight. Reconstruction of roads connecting North and South will enable Estonia to merge TEN-T network, improve access to the economic nucleus of EU and contribute to securing road connections between Finland and Central Europe. After the railways have been privatised, solutions for the best form of partnership between the private and public sectors — aimed at modernising railway traffic — should be researched. Modernisation of the main roads and railways will improve accessibility to all the larger towns in Estonia and create better opportunities for harmonising regional development.

In 2000, the Tourism Act was passed and the National tourism development program drawn up. Compulsory requirements for tourist accommodation were established, and procedures and requirements for the categorising of accommodation enterprises were passed. Estonian tourism policy has been focusing on legal regulation of the sector and on supporting the dissemination of tourism information. Tourism development on the national level is a task of the Enterprise Estonia Foundation.

A network of tourism information centres has been established in cooperation with local authorities. In 2000, a non-profit organisation, Eesti Maaturism (Estonian Rural Tourism), was founded to be responsible for organising personnel training for rural accommodation enterprises.

Historical monuments and architectural heritages (medieval towns and fortresses, old manor houses), tradition-based cultural life (music, dancing and handicraft, folk festivals), clean and diversified nature (landscapes, bodies of water, nature reserves) are the main tourism resources of Estonia. Strategically the natural and cultural resources and tourism promotion is realized through four geographical groups:

- Tallinn – capital city, well-preserved medieval old town and town wall;
- The northern and eastern parts Estonia: the northern coast with diversified nature, National Park of Lahemaa, the architecture of manor houses and ancient strongholds, a gateway to Russia;
- The western part of Estonia, the islands Saaremaa and Hiiumaa: the greatest potential for nature tourism in Estonia – picturesque beaches and villages, juniper landscapes, holiday beaches and resorts, the resort town of Pärnu;
- Southern part of Estonia – landscape of cupolas and lakes, a lively cultural life, numerous opportunities for natural tourism, winter sports, summer events and ethnic and cultural diversity (the Setu people, old Russian religion), the research and cultural centre of Tartu.

It has to be noted that tourism planning documents of Estonia also include yachting infrastructure as part of the overall tourism infrastructure: approximately 70 small marinas are scattered along the coastline of Estonia, all open for international navigation and supporting the development of sea tourism. The infrastructures of these marinas need to be developed to meet changing tourism requirements.

According to SPD of Estonia, development of fisheries is one of the state priorities (Priority No 3 “Agriculture, fisheries and rural development”). The general objective of the priority is a balanced, sustainable economic and social development in rural areas.

The SPD determines the following measures:

- Measure 3.9: Regulation of the fishing capacity of the fishing fleet.
- Measure 3.10: Modernisation and renewal of the fishing fleet.
- Measure 3.11: Investment support measures for fisheries production chain.
- Measure 3.12: Other fisheries related measures.

It can be concluded from the Latvian and Estonian planning documents of the Cohesion Fund and the ERDF that during the programming period 2004-2006 development of yacht harbours and marinas was not considered as priority. The EU funds were allocated only for development of big and small commercial ports.

Planning documents of Estonia and Latvia for the next programming period (2007 – 2013) currently are under elaboration status and therefore are not reviewed in the Strategy.

### **5.3. Joint Business, Tourism and Marketing Strategy for NLCR**

In the framework of the project “North Livonia Coastal Region Initiative for Cross-border Social-Economic Development” the Joint Business, Tourism and Marketing Strategy has been worked out by Baltic Tourism Research and Training Centre. The objective of the strategy is to identify and understand needs of tourism markets and to build capacity of businesses and communities to develop products that meet these needs and reach the aim with cross-border partnership.

Market assessment of the strategy stresses that Latvia and Estonia has the highest tourism growth rate in the EU. Important and favourable facts are that Northern Europe in general becomes more and more fashionable destination for tourists and trends favour new sustainable destinations, health and wellbeing. The market growth enables and also in future will encourage low cost flights to Riga and Tallinn. Besides, Latvia and Estonia still have price advantage of tourism products and services. The strategy determines walking, cycling, fishing, sailing, ornithology & other nature based activities as current and potential market activities. Tourists already exploring the North Livonia come from the Northern Europe, Germany, Scandinavia, Poland and Baltic States. But still more than 50% of the region’s tourists are Latvians (43%) and Estonians (10%). The main age groups are 40 – 60 year olds (42%), 25 – 39 years (29%) and under 20 years (21%). The duration of the trip is from 1 to 4 days for 63% of tourists, 5 – 10 days for 4%, over 10 days spend in the region 10%, but for 23% of visitors it is a day trip. Majority or 29% stays in campground, 24% in hotels or motels, but also services of country houses (12%) and apartments for rent (14%) are used. Nearly half of the tourists named the beach as the main purpose of the visit. Other important visit reasons are attractions, festivals and friends. In general visitors consider the tourism information and services are good in the region and 75% of them are of opinion that nature is very important factor for tourist attraction to the region.

SWOT analysis of the strategy shows that the main strengths of the North Livonia are:

- Geographic location and being on the border between two countries, capitals and cultures on/close to the main Riga – Tallinn road;



- World class nature and interesting coastal heritage with beaches, developing walking and bicycle routes;
- Recognition of the value of tourism in the region development, effective existing Tourism information centres/Tourism information points, good guiding services;
- Farm tourism, local village events, many entrepreneurs – handicrafts, some enterprising entrepreneurs.

The main weaknesses of the area are:

- Poor access to finance and insecure funding streams;
- Weak infrastructure, unpaved country roads, poor coastal and beach infrastructure;
- Lack of umbrella organization and co-operation between individuals or agencies, accordingly lack of joint marketing, tourist information, signage and image;
- Narrow range of products, accommodation and services, products frequently oriented to local market, lack of equipment for hire;
- Insufficient human resources, lack of appropriate knowledge, skills and initiative, closed minds, lack of local heritage knowledge;
- Short tourism season.

Tourism experts have determined in total eleven tourism products (nature, outdoor, crafts, food, activities, coastline, roads, cycling, services, culture, and water) of the region to be linked with processes (cooperation, marketing, innovation, sustainability, learning, access, partnership, quality, infrastructure, interpretation and capacity building) in order to develop competitive tourism industry. The main product – process combinations are five (see Table 5.1.).

No	Product	Product development	Processes	Converting processes into tool
1.	Nature	Packaging with other products & services/ sustainability/ educational trips/ health & exercise/ walking routes/ different access, services (specialist)	Sustainability	LA21/ Biosphere reserve & Nigula nature reserve/ nature networks/ ecotourism labels e.g. Green Globe
2.	Culture	Interpretation of local crafts & customs/ encounter/ guides/ festivals & events/ museums & culture houses (schools)	Interpretation	Signage/ interpretation/ tourist information/ languages/ orientation/ guiding (in person & self-guide)/ integrated interpretation strategy/ pre-visit
3.	Crafts	Souvenirs typical of the area/ outlets & supply/ quality variety and ranges to suit market/ transportable/ classes for visitors	Marketing	Image development (graphic)/ values/ brochures/ web etc/ Joint marketing
4.	Services	Shops/ customer care/ local knowledge/ selling up & on/ community involvement/ retention of income/ cross border/ TIC	Quality	Managing expectations/ value chains/ quality models/ e.g. ETQP, Green Key/ customer care/ customer journey
5.	Food	Regulations/ licensed kitchens/ local menus, recipes and foods/ festivals and food trails/ cross-border	Quality	Managing expectations/ value chains/ quality models/ e.g. ETQP, Green Key/ customer care/ customer journey

**Table 5.1. The key products and processes of Joint Business, Tourism and Marketing Strategy for NLCR**

Source: Baltic Tourism Research and Training Centre

Yacht harbours together with riverside jetties, boat hire, inland and sea fishing is defined under Water tourism product.

The main recommendation for joint, organized and sustainable tourism development within the region is to set up NLCR Tourism Development Forum with aim to develop the NLCR cross border tourism products and services that meet the needs of the area's tourism markets so that the companies and tourism marketing agencies have a more attractive product to market. The Forum should be the organization that ensures that the development of the cross-border tourism products and implementation of the Tourism Strategies are done through appropriate training and business activities without duplication of effort and activity and with coordinated cross-border approach within the tourism bodies of NLCR.

#### **5.4. Spatial planning requirements for port planning and development**

There are several general and specific assumptions that should be taken into account for successful planning and development of ports.

##### *5.4.1. Strategic spatial planning*

One of aspects to be taken into consideration is strategic spatial planning aspect. According to the findings of the project „Infrastructure Connecting Urban Systems - Sea Transport Corridors” prepared by MariTerm AB and Lloyd's Register - Fairplay Research in 2004, the basic strategies are as follows:

- Bulk ports, General cargo ports, Ferry cargo ports (trailer operation) and Container terminals should never be located in or close to habitat areas but close to major rail and road systems;
- Oil terminals should preferably be located at a distance from habitat areas;
- Passenger ferry terminals should be located a close to a city centre as possible for operational point of view. From an environmental point of view the terminals should always be able to:
  - provide reception facilities for grey and black water;
  - provide reception facilities for sludge and oil contained water;
  - provide reception facilities for garbage, sorted in fractions;
  - provide high voltage current (10 kV) from the quay for power service during ships stay in port;
  - terminal area for parking car on it way in and out;
- All ports should fulfil the IMO ISPS code of port safety. In this respect it means that the port area is enclosed and controlled by gates.

Today only a few of the ports concerned are built in accordance with these criteria. Other and mainly the oldest ports have problems mainly because of the lack of sufficient area for modern operations and because of the fact that the inhabited areas demands space and have a strong economy that gives more added value to the owner in comparison to the port operation that always is in competition to other ports and terminals.

##### *5.4.2. Quality constraints*

A considerable number of constraints are connected with quality standards. For yacht harbours and marinas one of the internationally recognized signs or awards is the Blue Flag marina award. The Blue Flag is an exclusive eco-label awarded to around 3100 beaches and marinas in 35 countries across Europe, South Africa, New Zealand, Canada and the Caribbean in 2005. Campaign is owned and run by the independent non-profit organisation Foundation for Environmental Education (see [www.blueflag.org](http://www.blueflag.org)).

According to the FEE, The Blue Flag marina must be a marina with pontoons or piers for pleasure boats. It can be part of a larger harbour with other activities, if the Blue Flag marina is clearly separated from harbour activities. This Blue Flag definition gives constraint of a yacht harbour incompatibility with commercial port in order to achieve internationally recognized award.

The Blue Flag marina should meet requirements of environmental management regarding energy, water, waste, health and safety. If there is boat repair and wash threat of pollution should be prevented. At marina at least three environmental education activities should be provided. There should be facilities for disabled persons.

Within the Baltic Sea Region there are 197 marinas awarded with this internationally recognized quality sign. The biggest number of the Blue Flag marinas has Denmark – 74, and then comes Sweden with 62, Finland – 29, Germany 26, Estonia – 4, Latvia and Poland – 1.

Apart from the Blue Flag quality requirements and international harbour safety requirements there are no standard yacht harbour model. Each yacht harbour is unique having many different infrastructure and service components depending as well on location, environment, culture and nature factors, as population mentality and business activities. Marinas located close or within the capitals are more connected with shopping and entertainment activities. Marinas located within peaceful, nature surrounded places are more tourist and recreation oriented. However, the basic services such as shower, toilet, electricity, water shall be provided by all of harbours.

#### *5.4.3. Environmental constraints*

Latvia and Estonia have rich, little transformed or untransformed nature resources which are beautiful and significant for recreational and educational purposes, but for economic activities there are a lot of restrictions that should be taken into account. In total 12% of the area of Latvia and nearly 11% of the territory of Estonia are classified as specially protected nature areas according to following categories: strict nature reserves, nature parks, nature reserves, national parks, biosphere reserves, natural monuments, and areas of protected landscapes. The most of these protected areas are established as Natura 2000 – protection areas of European level.

In the territory of North Livonia there are several nature reserves (Nigula, Randu Plavas, Vidzemes Akmenaina Jurmala, Luitemaa, etc.) included in Natura 2000 nature preservation network.

In order to clear up specific constraints concerned to socio economic activities and in North Livonia case to construction of harbour, the Environmental Impact Assessment should be worked out<sup>8</sup>.

#### *5.4.4. Technical constraints (basic parameters) of a competitive commercial port and yacht harbour*

Taking into account operating ports in the North Livonia region and available inland transport infrastructure elements (roads and railroads) it is reasonable to set up the technical constraints for competitive commercial port and yacht harbour development within the region.

A competitive yacht harbour in North Livonia region must provide the depth of entrance channel of 3.5 m and the width 25 – 30 m. If harbour corresponds to these parameters, maritime experts affirm that the 99% of all yachts that sail in the Baltic Sea are able to enter a harbour. Besides, a port with the depth of 3.5 m can also be used by small ferries (catamaran type) and small fishing trawlers.

For a competitive commercial port within the region of North Livonia the depth of shipping channel shall be 6.5 m and the width about 80 m, since 70% of cargo vessels accommodated by the commercial ports of North Livonia are “sea type” having 5.7m draught.

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<sup>8</sup> In case if there is a plan to build a commercial port. For yacht harbours Environmental Impact Assessment is not required.

## 6. Description of port infrastructure in Ainazi, Salacgriva and Haademeeste municipalities

### 6.1. Ainazi municipality

According to the spatial planning document, Ainazi port territory is provided for the following marine activities:

- Attendance of ships and passengers;
- Realization of cargo and transport operations and other maritime related activities;
- Tourism and recreation as yacht harbour with sports and recreation infrastructure.

The spatial planning specifies that the main usage purpose of the real estate is construction of port and terminals of the port (code 14). For the port territory joint detailed planning should be worked out to specify the usage of the territory and the construction parameters. 50% of the territory should be allocated for public access. Altitude constraints are not applied to port cranes, lighthouses, navigation constructions and other facilities: height of these facilities is defined according to functional requirements. Business and production area can be specified as closed or limited access territory. Other requirements are determined by legislation.

The Port of Ainazi has 39.5 ha territory that is located in the Northern part of the Ainazi town. The Northern border of the territory goes along Latvian-Estonian border from the water line till Kr.Valdemara street, in East it goes along Kr.Valdemara street, in South it goes along Kugu street till the water line. The port has also the co-ordinates for the border of the harbour (approved by the CoML, 25.02.2005. No. 52).

Since the middle of the 19th century Ainazi town has been closely related to ship building, nautical school and port. In Ainazi the first Latvian sailing ships were built, in 1864 the first Latvian nautical school was established providing education to several hundreds of captains and helmsmen. During the second half of the 19th century Ainazi was the second biggest ship yard of sailing ships in the Russian Empire after St. Petersburg and Odessa. During the First World War the infrastructure of the port was destroyed or evacuated to Russia. Despite these losses, during the time span between two world wars Ainazi port provided services of a commercial port. After the Second World War the operation of Ainazi port was not resumed until today.



**Figure 6.1. The Southern cargo jetty of Ainazi port before the First World War**  
Source: Ainazi City Council

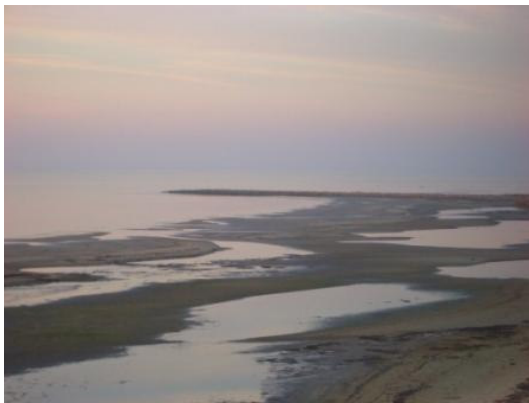


**Figure 6.2. A ship mooring at the cargo jetty of Ainazi port before the First World War**  
Source: Ainazi City Council

At the beginning of the 20th century the following hydraulic structures were built in the port of Ainazi:

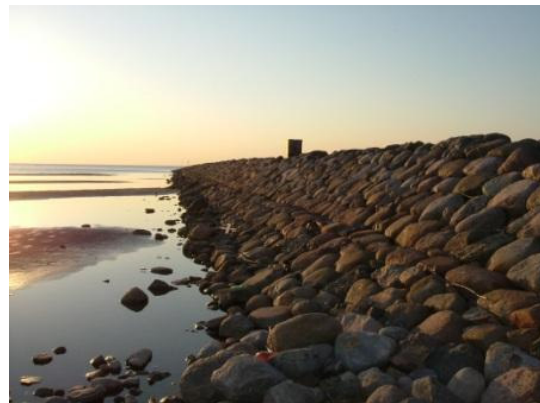
- The Northern breakwater (total length 610 m);
- The wave breaker (total length 429.70 m);
- The Southern cargo jetty (total length 350 m);
- Dredged access channel.

Unfortunately after the 2<sup>nd</sup> World War the port structures were not rehabilitated and nowadays only the Northern breakwater (see Figure 6.3. and 6.4.) is in a reasonable technical condition. The rest of structures are rather destroyed by lack of maintenance. A few damaged supports are still visible of the Southern cargo jetty (see Figure 6.5). The top structure of the wave breaker has settled till the level –0.5m.



**Figure 6.3. Ainazi port territory and the Northern breakwater**

Source: Witteveen+Bos Latvia SIA



**Figure 6.4. Northern breakwater of Ainazi port**

Source: Witteveen+Bos Latvia SIA

Both navigational signs – primary leading sign and the secondary leading sign - are in a good technical condition and could be used without substantial investments. The Ainazi Light house is still operational (see Figure 6.6.).



**Figure 6.5. Pylons of the Southern cargo jetty of Ainazi port**

Source: Ainaži city council



**Figure 6.6. Light house of Ainazi port**

Source: Witteveen+Bos Latvia SIA

The terrain of the territory is rather low, one part of the territory is covered by the dredged material (sand) that were reclaimed there during the dredging works in mid 90's.



Currently the port can not be used for navigation, serious activities (dredging of access channel, berthing facilities, inland infrastructure, and creation of protected basin) have to be carried out in order to accommodate yachts and much more to receive cargo vessels.

## **6.2. Salacgriva municipality**

The port of Salacgriva officially consists of two territories – territory of the port of Salacgriva and territory of the port of Kuivizi.

The areas of Salacgriva and Kuivizi ports are included in the spatial planning document as terminals and berths. Territories of the ports are provided for attendance of ships, vessels, boats, motorboats and yachts as well as construction of loading places and storage buildings. The document specifies expansion of loading places of Salacgriva port to direction of wastewater treatment facilities (on the right coast of river Salaca), which are planned to be closed and demolished afterwards, and arrangement of new stocking yards (on the left coast of the river) within currently unused territory.

Kuivizi port territory is planned for local fishing, fish processing, as well as tourism and recreation purposes.

### *6.2.1. Port of Salacgriva*

The port of Salacgriva is located in the river mouth of the Salaca River. The port territory (area onshore 14.4 ha) is located at both banks in between the road bridge and the Riga Gulf (see Figure 6.7.). Both river banks are developed.

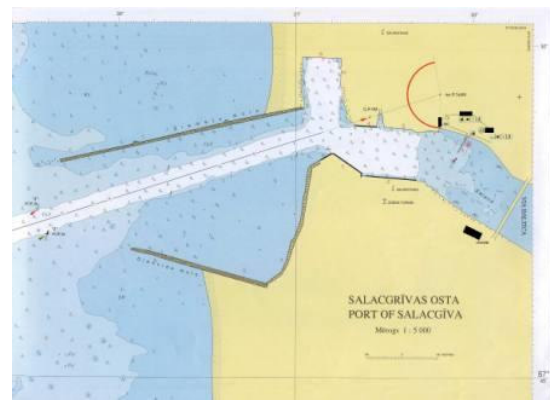
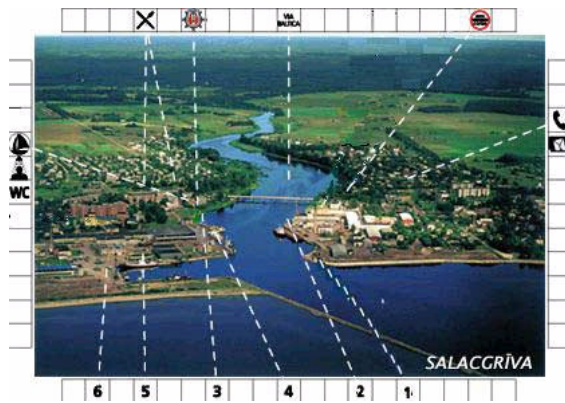
At the right bank there is dense network of buildings that belongs to the fish products processing plant, open air cargo stocking yards, road network and berths for cargo operations:

- Berth No. 3 (length 128.6 m, allowable draught 2.2-4.0 m);
- Berth No. 4 (length 70 m, allowable draught 5.6 m);
- Berth No.5 (length 81.5 m, allowable draught 5.0 m);
- Berth No. 6 (length 100.8 m, allowable draught 5.0 m).

At the left bank there is also a dense network of buildings that belongs to the fish products processing plant, open air cargo stocking yards, road network and berths for cargo operations:

- Berth No.1 (length 78 m, allowable draught 5.6 m);
- Berth No. 2 (length 145 m, allowable draught 3.5 m);
- Berth No.3a (length 14 m, allowable draught 2.0 m).

Inner harbour and navigation channel are protected by Southern and Northern breakwaters (see Figure 6.8.). The total area of the harbour is 28.6 ha. The port of Salacgriva has 3 km long and 70 m wide access channel to the port.



**Figure 6.7. Infrastructure of Salacgriva port**      **Figure 6.8. Map of Salacgriva port**

Source: [www.salacgrivaport.lv](http://www.salacgrivaport.lv)

Source: [www.salacgrivaport.lv](http://www.salacgrivaport.lv)

At the right bank, close to the bridge, is located the floating marine (L=40m) for 25 places. Allowable draught is 2.5 m.

### 6.2.2. Port of Kuivizi

The area of the port territory is 24.9 ha. The port is located in between the Riga Gulf and motorway Via-Baltica, in the mouth of the small river Krisupite. The area of the port is 6.4 ha.

There are few buildings related to the fishing industry and simple road network. Hydraulic infrastructure is rather undeveloped. Both breakwaters (made of boulders fenced with row of wooden piles) are in poor technical condition and should be reconstructed. Due the poor condition of breakwaters there is a problem of sedimentation in access channel.

There are few on wooden piles based berths for a shallow draft fishing boats. The port has simple guiding line for the access channel.

Serious upgrading works of the port infrastructure should be done (reconstruction of breakwaters, maintenance dredging works and berthing facilities to be built) to accommodate yachts.

## 6.3. Haademeeste municipality

There are two ports in Haademeeste municipality – Treimani port and Jaagupi port. Treimani port is located approximately 6 km from the border of Latvia and 21 km from Haademeeste. Jaagupi port is located in 14 km distance from Treimani port and 8 km from Haademeeste. Spatial planning documents of Haademeeste municipality currently are under elaboration. The spatial planning will be completed by the end of year 2006 and the both ports will be included in the planning documents.

### 6.3.1. Port of Treimani

Treimani port is 100% privately owned port with perspective total territory of 7.6 ha. There are several fish processing related buildings in the port area. The hydraulic infrastructure is in relatively good technical condition. There are two berths with lengths of 49 m and 43 m (see Figure 6.10.). Depth in front of the berths is 2.5 m. The inner harbour and access channel are protected by the Southern (376 m) and the Northern (363 m) breakwaters (see Figure 6.9.). The access channel in between breakwaters is only 15m wide, the width of the rest of the access channel is 25 – 30 m and the depth of the channel is 1.5 – 2.5 m. The access channel has no navigation signs.



**Figure 6.9. Infrastructure of Treimani port**

Source: [www.marinanautilus.ee](http://www.marinanautilus.ee)



**Figure 6.10. The Northern berth of Treimani port**

Source: Haademeeste municipality

Information about Treimani port is included in the web site [www.marinanautilus.ee](http://www.marinanautilus.ee) gathered by the Keep the Estonian Sea Tidy Association. The information in this website is based on the Small Harbour database and it presents harbours that have been sailed through in the summer 2003. Regarding Treimani harbour it says that the port can accommodate yachts with a maximum length of 10 m and a maximum draught of 1 m.

### 6.3.2. Port of Jaagupi

Jaagupi port is 100% owned by the municipality of Haademeeste. The perspective territory is planned to comprise 7.44 ha. There are few buildings related to the fishing industry and an access road.

The inner harbour is narrow and shallow (in some places only 1 m deep). There are two breakwaters – Southern is in a good technical condition, but the Northern should be upgraded and extended up to the same length as the Southern one.

There is only one small berth for accommodation of the small fishing vessels (see Figure 6.12.). Length of the access channel is 400m. It is very narrow, shallow and without any navigation signs.

Serious upgrading works (upgrading of the breakwaters, the new berth for yachts, dredging works and navigational signs) should be done in order to make the port accessible for yachts and small fishing vessels.



**Figure 6.11. Jaagupi port**

Source: Haademeeste municipality



**Figure 6.12. Jaagupi port**

Source: Haademeeste municipality



## **7. Strategy formulation for ports of Ainazi, Salacgriva and Haademeeste**

### **7.1. Existing port strategies and planning documents**

#### *7.1.1. Summary of the Business plan of Salacgriva port*

Salacgriva port is the most northern small commercial port of Latvia. The land territory of the port is 14.4 ha, but water area is 28.6 ha. Before 1992 the port was used as fishing port only. Since then the port has been developed and has become the third biggest among small ports of Latvia (after ports of Skulte and Mersrags) with capability to accommodate the sea type vessels with maximum draught of 5.6 m. This type of ships comprises 70% of all vessels accommodated by the port and it is foreseen that the number of sea type ships will increase also in the future because of higher safety requirements from the EU which will eliminate sea-river type vessels made in Russia.

For the development of Salacgriva port the total capital investments made between 1993 and 2004 comprises more than 2.65 million LVL (3.74 million EUR). From the amount 68% have been invested by Salacgriva Port Authority and 32% by private investors. As a result infrastructure of access roads and loading places are developed, fairway is deepened and one new berth is built.

Currently there are six berths in the port with total maximum throughput capacity of 900m<sup>3</sup> per year. The used capacity is around 38%. The total storage and loading area of the port is 42 400 m<sup>2</sup> and there is still 20 000 m<sup>2</sup> of free territory for expansion of storage places. Besides, Salacgriva port also accommodates fishing vessels and yachts. There is a floating jetty with 25 berths for visiting yachts.

Salacgriva port is a significant cargo transshipment point in the North Vidzeme region with annual cargo turnover 221 thousand tonnes (2004). There are two stevedoring companies, six agent companies and around ten cargoes shipping companies operation in the port. The main type of cargo is timber and wood products exported to Sweden, Finland and the Great Britain. Before 2003 more than 95% of all cargo was timber and wood products, but in 2004 the diversification of cargoes has been started – 80% timber products and 20% peat and other dry bulk cargoes. Mainly the cargo structure changed due to reconstruction works done in order to accommodate ships with tonnage of 5000 t (smallest profitable tonnage for peat transportation). After 1 May 2004, when Latvia and Estonia joined the EU and the Estonian stevedore company started business in Salacgriva port, export (peat) and import (expanded clay) cargoes were diverted from/to Estonia. In 2005 expected proportion of cargoes is 70% timber cargoes and 30% dry bulk cargoes. The dry bulk cargo increase in 2005-2006 is planned to achieve by new peat transportation contracts with total amount of 200 thousand t per year and expanded clay could reach 50 thousand tons per year. Besides, an increase is expected of cargoes related to road construction like granite chips and other construction materials.

The favourable geographic location which allow easy logistics from North Latvia and South Estonia cargo basins and good management of Salacgriva port are the main competitive advantages for further cargo attraction and turnover growth. Attractive also is price policy which is about 6% less than tariffs in Riga port and about 30% less than Parnu port. One more positive trend indicating long term business development intentions within Salacgriva port are increasing private investments made by companies operating in the port.

There is another port in Kuivizi under the administration of Salacgriva Port Authority. The total land area of Kuivizi port is 24.9 ha, but water territory is 6.4 ha. The port is used by local fishermen and in 2005 building of fish refrigerate plant will start. There is enterprise developing infrastructure for tourism, mainly for camping and water tourism. According to

planning documents of Salacgriva municipality, the Kuivizi port territory is planned to be developed for coastal fishing, fish processing, tourism and recreational purposes.

According to Salacgriva Port Authority the priority for Salacgriva port development is capacity building of commercial port, mainly accommodating sea type cargo vessels. The possibility to serve fishing fleet should be followed up. The yacht harbour in the longer period of time should be moved to the Kuivizi port and developed as part of local tourism industry.

#### *7.1.2. Summary of financial and economic assessment of development of Jaagupi harbour within the Tourism Development Programme for the Municipality of Haademeeste, 1999*

Tourism Development Programme for the Municipality of Haademeeste was worked out by WS Atkins International Ltd. within the Cross-border Co-operation Programme of EU/Phare in 1999.

One of the outputs of the project was the technical design and the financial and economic appraisal for the harbour of Jaagupi.

During the inception of the project it was found out that the harbour was at the stage of commenced and abandoned construction of a new fishing harbour, including incomplete construction of the fairway with moles to an extent of 300m. At its mouth the fairway was already silted up permitting entry only to small fishing boats at high tide. It was evident that no marina could be designed and accommodated without proper construction works of the harbour itself.

During topographic and bathymetric surveys it was assessed that entire coast itself does not favour construction of the harbour with depth needed to accommodate vessels larger than small fishing boats. The continuous sand drift along the shallow coast from South to North would require regular dredging or construction of double moles with length of at least 1000m. It was also concluded that from engineering point of view the construction of the harbour of Jaagupi would not be more expensive or difficult than anywhere else along the coast of Haademeeste municipality. Also the environmental assessment showed that the impact of the harbour at Jaagupi would be small and likely to be less than at other locations.

For designing and financial and economic assessment it was determined that the harbour should be able to accommodate three user groups: local fishermen (berths for 40 small fishing craft and one fishing trawler), the National Border Guard (berths for three medium-size Border Guard patrol boats) and yachtsmen (berths for 20 yachts with provision of extension to 35). It was foreseen that fishing trawlers would be introduced to gradually substitute small fishing boats.

Financial and economic assessment (in 1999) of Jaagupi harbour construction showed that total capital investment needed to construct only the inner harbour was estimated in the amount of 17 MEEK (1.09 million EUR) and annually would require 100 000 EEK (6391 EUR) for running and maintenance works. Economic rate of return would have been between 6% and 10%. The economic net present value would have been positive only with increased traffic level. If the costs of widening/deepening of the channel and constructing the moles had been included in the scheme, the harbour project would not have been feasible financially or economically, because in this case the total capital investment would have ranged from 65 MEEK (4.2 million EUR) to 113 MEEK (7.2 million EUR) with an annual operating deficit of 1.5 MEEK (0.95 million EUR). This was considered clearly beyond the resources of Haademeeste municipality and would have required substantial amount of external funding. From economic aspect the project also did not look attractive, since even with an optimistic traffic forecast the project would have made significant net economic loss – NPV around -50 MEEK (-3.2 million EUR).

It was concluded that if the channel and the moles, disregarding the financial and economic aspects, were constructed separately because of security benefits for Estonian Border Guards and the general contribution to the development of yachting and tourism in Estonia, then it would be worth to reconsider the case for reconstructing fishing/yachting harbour as an add-on project.

### *7.1.3. Summary of Regional Report of Latvia of "The Baltic Palette II" Project Action Group II - Transport Corridors Network*

The report concerning the needs for investment in infrastructure of Riga region was prepared by Riga City Development Department and presented in November 2004. There are several ideas concerned to development of the small ports of the Riga Region.

#### Ainazi Harbour

The report includes consideration of Ainazi potential yacht harbour as infrastructure of one of the Riga region ports. The report indicates that the future for the port is foreseen as yacht tourism centre and only a few commercial activities like fishing is anticipated.

#### Salacgriva Port

The port of Salacgriva is viewed as one of the successful small commercial ports in Riga region. Declining of turnover has stopped after the reconstruction works – construction of two new docks and dredging of fairway to be able serving sea vessels with draught of 5.6 m. Since 2003 service for bulk cargo is available. Total estimated investments in the infrastructure of Salacgriva port is between 9 and 13 million EUR, including reconstruction of the South mole and additional cargo area; it is also proposed to build port's administration building providing all types of services, especially to boat and yacht tourists; it is also considered to dredge the yacht terminal up to 4 m in depth. For the future development of the port the new railway link to the closest railway station "Limbazi" (50km) is viewed as a very important issue that has to be included in the conclusions of the Rail Baltica pre-feasibility study.

It is emphasised in the report that the developed railway infrastructure is crucial for further development of the small ports. Essential is also reconstruction of important roads accessing the ports.

### *7.1.4. Summary of Estonia Small Harbours Study, carried out by COWI A/S in October 2003*

The recipient of the study was Enterprise Estonia - one of the largest institutions within the national support system for entrepreneurship in Estonia.

The objectives of the Estonia Small Harbours Study were:

- To find out six to eight Estonian harbours most likely to be eligible for the EU structural funds and for some of them to prepare scopes of work for feasibility studies;
- To provide Enterprise Estonia with a means for assessing the potential for investment in yacht harbour projects in the future.

Previous studies for the yacht harbours in Estonia learned that only under exceptional conditions it is possible to generate positive FRR based on dues and fees of the visiting yachts. Therefore yacht harbours in general are non-profit organizations. The home boat owners' annual fee secures the financial viability, while incomes from guest boats are considered a positive but marginal benefit. One of the good examples with financial and economical feasibility is Kurresaare Yacht Harbour. The financial feasibility of this harbour generally was ensured by the increased land value. Most frequent is economic feasibility of

yacht harbour with indirect economic benefits to the local government, region or state in general. One of the Feasibility studies with no financial, but with economic feasibility is Kihnu Harbour Feasibility study. Economic feasibility was proved only due to the relatively small investments needed. But Prangi Harbour Feasibility Study did not prove neither financial nor economic feasibility. From the previous experience conclusion was that for successful yacht harbour environment should be attractive from inside and outside of the harbour and there is a need to be economy of scale in the immediate hinterland to exploit the tourism opportunities.

The site visits and additional information showed numerous interesting harbours, however the most of them were able to offer only the basic services. Centres with economy of scale were found in Tartu, Narva, Tallinn, Haapsalu, Kuressaare and Pärnu.

Based on the previously mentioned findings, the following general strategy for sailing tourism development in Estonia is proposed:

- Developing the chain of intermediate harbours within one-day ease sailing – approximately 45 – 70 km or 25 – 40 nautical miles, being able to provide safe mooring and adequate facilities for overnight stay;
- Developing the centres into attractive yacht harbours, attracting visiting sailors to stay several days in each place.

Through the study the following distinctive regions have been identified:

- Tartu - Narva, inland waterways where rivers and lakes form the basis for yachting activities;
- Narva - Tallinn, Northern coast where there is very limited yachting activity today;
- Tallinn - Pärnu, Western archipelago which is the most attractive and best developed area for yachting.

Within those regions nine harbours were found interesting for further study: Narva, Narva-Jõesuu, Toila, Dirhami, Haapsalu, Kihnu, Orissaare, Ruhnu – Rinksu, Möntu.

#### *7.1.5. Summary of the National Program “Reconstruction and development of common hydraulic structures of Latvian Small Ports (2004 – 2006)”*

The National Program has been worked out in the framework of the Single Programming Document of Latvia. The leading partner of the Program is the Ministry of Transport. The program was prepared in order to finance the improvement of seaports’ infrastructure and sea-side accessibility from the EU structural funds (ERDF).

By analyzing the current situation and the development perspectives for Latvian small commercial ports - Salacgriva, Skulte, Lielupe, Engure, Mersrags, Roja and Pavilosta - the following investment projects were identified:

- Southern breakwater reconstruction in Skulte port – total cost of the project is 1.9 million EUR (75% financed by ERDF and 25% by the Port Authority)
- Northern breakwater reconstruction (Phase I) of Mersrags port – total cost of the project is 1.7 million EUR (75% financed by ERDF and 25% by the Port Authority)
- Southern breakwater reconstruction of Salacgriva port – total cost of the project is 1.5 million EUR (75% financed by ERDF and 25% by the Port Authority)

Implementation of the projects is planned to be completed over the period of years 2004 – 2008.

#### *7.1.6. “Development Concept of Small Ports of Latvia” carried out by Konsorts Ltd. in 1998.*

The concept was developed in 1998 in order to improve the legislative basis for operation of small ports in Latvia. Based on findings of the concept, amendments were made in the Latvian legal acts to improve the efficiency of operation of ports. This concept is not reviewed in the framework of the Strategy in detail.

## **7.2. Results of the interviews with stakeholders of the ports of the municipalities of North Livonia**

In order to find out stakeholders opinion and vision of the North Livonia ports development, interviews and stakeholders' meeting have been held. 25 respondents have been interviewed and asked to choose the best development alternative for the ports of Salacgriva, Kuivizi, Ainazi and Jaagupi port and to substantiate the chosen variant. Common vision of Treimani port development was formulated by 8 participants during the port's stakeholders meeting.

### *7.2.1. Results of the interviews with stakeholders of Salacgriva port*

There were 8 respondents sharing opinion regarding Salacgriva port development. From them 3 officials of Salacgriva and Mersrags ports, 1 local fisherman, 2 local businessman, 1 representative of Latvian Maritime Union and one representative from State environmental service.

All respondents have chosen commercial port alternative as the main further development for Salacgriva port (see Table 1 in Annex VIII). The main supportive reasons are good geographic location and cargo flows from 2 countries (Latvia and Estonia), increasing turnover and long term investors (stevedore companies) from Estonia. The main concern is lack of vacant inland territory for the port expansion.

Besides, there are also considerations that the port should be developed also as yacht harbour (2 respondents) and fishing harbour (2 respondents). These considerations are logically consequential, because currently the port is able to attend yachts and fishing vessels, although yacht harbour is small and undeveloped and it is not very well compatible with commercial and fishing port infrastructure and industrial environment.

### *7.2.2. Results of the interviews with stakeholders of Kuivizi port*

Regarding development of Kuivizi port responded 6 persons. From them 1 local businessmen investing in fish processing plant, manager of Salacgriva Port Authority, 1 fisherman and 1 businessman from Salacgriva and 1 from State environmental service.

Respondents mainly see development of Kuivizi port as fishing harbour (see Table 2 in Annex VIII.1) and substantiate this alternative by the fact that there are already some fishing port facilities. Besides there are some local businessmen already investing in fish processing plant development. The main con is decreasing fish resources in the Baltic Sea.

Two of respondents consider that Kuivizi port also should be developed as yacht harbour. The main pros are local businessman who investing in the tourism infrastructure (camping) and the nature resources for rural inland tourism. The main cons are comparatively narrow access channel and investments needed for prolongation of breakwaters to prevent the access channel from frequent chocking with sand. No one of stakeholders sees Kuivizi port to be developed as yacht harbour only.

### *7.2.3. Results of the interviews with the stakeholders of Ainazi port*

Regarding Ainazi port development responded 20 persons. From them 4 local businessmen, local expert of Ainazi port history, 3 officials of Salacgriva and Mersrags ports, 2 Estonian

respondents (representatives from Parnu County Government and Association of Small Ports of Estonia), 2 businessman and 1 fisherman from Salacgriva, 2 representatives of Latvian Yachting Union, 1 official from Latvian Maritime Union, 1 from Maritime Administration of Latvia, 1 from Transportation Ministry of Latvia, 1 from Latvian Tourism Development Agency and 1 from State environmental service. Result matrix (see Table 3 in Annex VIII.1) shows that predominant development alternative chosen by respondents is for yacht harbour. The main supporting substantiation are: good geographic location and access from 2 countries (Estonia and Latvia); natural harbour bounded by stone shoals; and peaceful place with rich nature. The main prerequisite for the yacht harbour development respondents have found tourism development programme. The main concern is big capital investments (currently significantly exceeding financial resources of the municipality) with very long payback time.

2 respondents also thought that the Ainazi port could be developed as commercial port, because of the good geographic location and historical commercial maritime experience. One respondent also thought that the port could attend both - yachts and fishing vessels, providing more working places. None of the respondents thought that fishing harbour only could be reasonable alternative to develop.

#### *7.2.4. Results of the interviews with stakeholders of Jaagupi port*

The total number of respondents regarding development of Jaagupi port was 6. From them 1 local fisherman, owner of the local fish processing plant and the plant in the closest fishing harbour Treimani, 1 local hotel owner, 1 representative from Parnu County Government and 1 from Association of Small Ports of Estonia, mayor of the municipality of Haademeeste.

Stakeholders of Jaagupi port have chosen between to alternatives – fishing harbour and fishing and yacht harbour (see Table 4 in Annex VIII.1). 2/3 or 4 respondents think that fishing and yacht harbour is the most preferable alternative for Jaagupi port development. The choice is supported by considerations that there is already existing fishing harbour used by the local fishermen and there already operates fish processing plant. The modernised (3 – 3.5m deep) fishing and yacht port will be able to attend trawls allowing sea fishing and prolonging fishing period for local fishermen, besides this development variant will retain existing working places and develop new ones. The main concerns are about big capital investment with very long payback period and the ownership and status of the port area (at the moment and there is no port status and the territory is owned by the state of Estonia) is not attractive for the private investors.

Two respondents think that the most appropriate is to develop fishing harbour only. They support this choice mainly with the same pros and cons. The only difference is opinion that for the yacht harbour there is no potential for the basic infrastructure (shower, shop, leisure facilities etc.) in the nearest future.

#### *7.2.5. Results of the interviews with stakeholders of Treimani port*

To find out vision of the development of Treimani port, the stakeholders meeting have been held (see Annex VIII.2). The majority of the participants are land owners of Treimani port and fishermen at the same time. They have always used the port for fish landing and see the ports development as a fishing port mainly attending coastal fishing boats with length up to 12m. None of the fishermen thinks it would be useful to deepen and reconstruct the port to attend also trawlers. In the nearest future the fishermen do not plan to obtain trawlers.

Stakeholders of the port think that the development of Treimani port should be carried out in accordance with the development of the village of Treimani and the region in general. Among the traditions and development trends in future there is emphasis on the development of tourism in the region. Accordingly majority of Treimani port stakeholders supports the idea to reconstruct the inner harbour of the port so that it would be able also to accommodate

visiting yachts and recreational boats. The stakeholders are of an opinion that it is possible to design the harbour to be convenient for the both types of ports' users. In perspective the owners of the Treimani port are planning to establish a foundation o develop ports infrastructure and services for the yachting and onshore tourism. None of the stakeholders think that the port of Treimani should be developed as yacht harbour only.

### 7.3. Situational analysis: SWOT analysis

In this chapter there is provided the SWOT analysis – a method of strategic planning, which identifies strengths and weaknesses (internal factors which can be influenced by owners of ports) as well as opportunities and threats (external factors, which can not be influenced by owners of ports and related stakeholders) for development of each identified port in Ainazi, Salacgriva and Haademeeste municipalities.

#### 7.3.1. SWOT analysis of the development of Salacgriva port

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1. Comparatively developed port infrastructure of the both commercial port (depth of the port correspond to the draught 5.7m being able to accommodate "sea type" vessels) and yacht harbour</li> <li>2. Continuous investments in the modernization of the port</li> <li>3. Management capacity and good co-operation between port administration and companies operating in the port</li> <li>4. Good road access providing easy delivery of cargoes from cargo basins of local market and Estonia</li> <li>5. Good geographical location from the yachting aspect – 1 yachting day to Riga; 1 yachting day to Parnu</li> <li>6. Good linkage and rich choice of untransformed nature resources</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of railroad and branch-line to the port</li> <li>2. Insufficient space for handling of cargo and expansion of storage places in the port territory</li> <li>3. Spatial planning constraints: surrounding of residential buildings</li> <li>4. Yacht port development limited by the bridge over the river Salaca from one side and commercial port territory from the other side</li> <li>5. The port freezes up once in 5-6 years for approximately 3 month</li> <li>6. Constraints imposed by wildlife and other environmental legislation</li> <li>7. Insufficient diversification of cargo flows (prevalence of timber products – 70%)</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1. The EU transport policy for promotion of inter-modality of transport and development of the "Baltic Ring" (availability of the EU funds)</li> <li>2. Good motor road network, including Via Baltica, simplicity and future absence of the border crossing formalities</li> <li>3. Increase of cargo basin after joining the EU (opening up of Estonian market)</li> <li>4. Increased demand for chip wood in Scandinavian countries</li> <li>5. Nearby located Estonian, Scandinavian and Russian markets</li> </ol>	<ol style="list-style-type: none"> <li>1. Insufficient governmental support for development of small commercial ports and yacht harbours in Latvia; problems to raise private funds</li> <li>2. Reduction of turnover of timber cargo (construction of pulp mill in Latvia)</li> <li>3. Vulnerability of fish cargoes to trends in the EU fishery policy and situation in the Russian market</li> <li>4. Short summer, freezing up of the port once in 6 years (service of an ice breaker is too expensive)</li> <li>5. Problems to handle bulk cargoes in the Salaca river (spawning area for salmons)</li> </ol>

#### 7.3.2. SWOT analysis of the development of Kuivizi port

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1. Pleasant place for recreational activities, rich choice of nature resources</li> <li>2. Presence of potential local investor to develop tourism infrastructure</li> </ol>	<ol style="list-style-type: none"> <li>1. Deteriorated port infrastructure (breakwaters, access channel etc.)</li> <li>2. Access channel needs frequent dredging works to maintain the depth and currently is</li> </ol>

<ol style="list-style-type: none"> <li>3. Port facilities available for coastal fishing</li> <li>4. Rich choice of untransformed nature resources (located in the territory of North Vidzeme Biosphere Reserve)</li> </ol>	<ol style="list-style-type: none"> <li>3. Limited space for port development (full service marina)</li> <li>4. Constraints to the port development imposed by wildlife and other environmental legislation</li> </ol>
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>1. Good motor road network, including Via Baltica, simplicity and future absence of the border crossing formalities</li> <li>2. Availability of the EU funding for investment financing (ERDF, FIGG, INTERREG etc.)</li> <li>3. Increasing importance of recreational boating industry within the EU</li> <li>4. Lack of full-service marinas in Latvia, including large scale winter storage place for yachts</li> </ol>	<ol style="list-style-type: none"> <li>1. Decreasing fish resources in the Baltic sea</li> <li>2. Competition among other ports (small commercial ports) in Latvia for raising of the EU funds</li> <li>3. Rather undeveloped technical, social and tourism infrastructure in the neighbourhood</li> <li>4. Lack of governmental support to develop the small ports of Latvia</li> <li>5. Short tourism season, uncertain weather</li> </ol>

### 7.3.3. SWOT analysis of the development of Ainazi port

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Noiseless, unpolluted (no industrial enterprises), not overpopulated town, pleasant for rest</li> <li>2. If only yacht port is considered, natural depth of the port (3.5 m) is sufficient for port operations; natural harbour bounded by stone shoals</li> <li>3. Good, easy and comfortable port location (free space for development)</li> <li>4. Good geographical location from the yachting aspect – 1 yachting day to Riga; 1 yachting day to Parnu and good connection to Kihnu and Ruhnu Islands</li> <li>5. Good untransformed nature resource (located in the territory of North Vidzeme Biosphere Reserve)</li> </ol>	<ol style="list-style-type: none"> <li>1. 48% of port territory belongs to the private land owners</li> <li>2. Destroyed shipping channel and harbour, no port infrastructure</li> <li>3. Lack of railroad and branch-line to the port</li> <li>4. Capital investments required exceeds the financial resources of municipality and local investors</li> <li>5. The port freezes up once in 5-6 years for approximately 3 months</li> <li>6. Lack of governmental support to develop the small ports of Latvia</li> <li>7. Constraints imposed by wildlife and other environmental legislation</li> </ol>
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>1. Availability of the EU funding for investment financing (ERDF, INTERREG etc.)</li> <li>2. Increasing importance of recreational boating industry within the EU</li> <li>3. Lack of full-service marinas in Latvia tailored exclusively for yachtsmen, including large scale winter storage place for yachts</li> <li>4. Good motor road network, including Via Baltica, simplicity and future absence of the border crossing formalities</li> <li>5. Increasing demand, importance and governmental support to develop the tourism and recreation industry in Latvia</li> </ol>	<ol style="list-style-type: none"> <li>1. Insufficient government support for development of small commercial ports and yacht harbours in Latvia</li> <li>2. Dependency on the density of the network of marinas in Latvia and Estonia (average speed during the daylight is 7 km/h)</li> <li>3. Strong competition among the small commercial ports in Latvia and Estonia, limited resource basin for operation of network of commercial ports</li> <li>4. Short tourism season, uncertain weather conditions</li> <li>5. Constraints imposed by wildlife and other environmental legislation</li> </ol>

### 7.3.4. SWOT analysis of the development of Treimani port

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Historic and present local fishermen activity</li> <li>2. Operating fish processing plant</li> <li>3. The area of the port territory (7.4 ha) is sufficient for the fishing and yacht harbour</li> </ol>	<ol style="list-style-type: none"> <li>1. Development of port influenced by 100% private land owners (possible difficulties with decision making and fund rising)</li> <li>2. Capital investments required for the</li> </ol>



<ol style="list-style-type: none"> <li>4. Existing hydraulic structures is in rather good condition</li> <li>5. Rich choice of untransformed nature resources</li> <li>6. Development of port influenced by 100% private land owners of the port (management capacity of port operation)</li> </ol>	<ol style="list-style-type: none"> <li>3. The port freezes up each years for approximately 3 - 4 months</li> <li>4. The depth of the current access channel provides access only to small fishing boats and yachts with maximum draught of 1m</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1. Good road access, simplicity and future absence of the border crossing formalities</li> <li>2. Opportunity to apply for the financial support from EU fund, more precisely to the FIFG</li> <li>3. Increasing importance of recreational leisure boating industry within EU</li> </ol>	<ol style="list-style-type: none"> <li>1. Decreasing fish resources in the Baltic sea</li> <li>2. Governmental support only to the state owned small ports with the most economic benefit to economy of Estonia</li> <li>3. Competition among companies of other industries to receive financial support from government and/or EU structural funds</li> <li>4. Short tourism season, uncertain weather</li> </ol>

### 7.3.5. SWOT analysis of the development of Jaagupi port territory

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1. Pleasant place for recreational activities, rich choice of untransformed nature resources</li> <li>2. Presence of fishermen who are interested to invest in expansion of the fishing fleet in order to use bigger fishing vessels (trawls) to increase the annual haul</li> <li>3. Operating fish processing plant</li> </ol>	<ol style="list-style-type: none"> <li>1. The land of the potential port territory currently does not have the status of a port territory and is owned by the state of Estonia</li> <li>2. Spatial planning of the municipality not approved</li> <li>3. Capital investment required for the development of the port substantially exceeds the financial resources of the municipality</li> <li>4. Fish reloading infrastructure does not correspond to the EU regulations</li> <li>5. The existing depth of the access channel does not correspond to draught of trawls (3-3.5 m)</li> <li>6. The port freezes up each years for approximately 3 - 4 months</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1. Good motor road network, including Via Baltica, simplicity and future absence of the border crossing formalities</li> <li>2. Availability of the EU funding for investment financing (ERDF, EFF, INTERREG etc.), especially in the area of fishery</li> <li>3. Increasing importance of recreational boating industry within the EU</li> <li>4. Lack of full-service marinas in the Estonia, including large scale winter storage place for yachts</li> </ol>	<ol style="list-style-type: none"> <li>1. Decreasing fish resources in the Baltic sea</li> <li>2. Competition among other ports (small commercial ports) in Estonia for raising of the EU funds</li> <li>3. Competition with neighbouring Treimani port (a private fishing port and a yacht harbour)</li> <li>4. Undeveloped technical, social and tourism infrastructure in the neighbourhood</li> <li>5. Short tourism season, uncertain weather</li> </ol>

## 7.4. Selection of the best strategy

There are several strategies to apply after set-up of the SWOT matrix. In this case it is recommended to use the so-called mini-max strategy where strengths have to be explored, weaknesses eliminated and threats avoided.

The first question to be answered is whether there should be a commercial port, fishing port or yacht harbour/marina in municipalities of Ainazi, Salacgriva and Haademeeste. It is evident that Salacgriva commercial port has a strong position in regional shipping market and

to some extent is competing with port of Parnu (some timber and peat cargoes have been diverted to Salacgriva from Parnu after May 1, 2004).

For the remaining ports, it is not recommended to develop a commercial port for the following reasons:

- No socio-economic preconditions for development of big commercial, passenger and cruise ports;
- Limited cargo basin no railway access;
- Limited demand for cargo services (e.g. utilization rate of Salacgriva port is only 38%);
- Preventive national economic policies in Latvia and Estonia for exporting of low value added products (timber, peat, etc.);
- Environmental constraints for development of commercial ports (full Environmental Impact Assessment required, which is not the case for development of yacht harbours);
- Lack of existing commercial port infrastructure, which means a lot of capital investment and resulting in very long investment payback period.

It means that remaining options for development of Ainazi, Kuivizi, Jaagupi and Treimani ports are either yacht harbours, fishing ports or combined yacht-fishing ports.

As was mentioned in Chapter 4.4. "Demand for shipping services", fish resources are diminishing the Baltic Sea. Besides, the EU maritime policy is oriented towards reduction and modernization of the fishing fleet. The number of trawlers in the region is decreasing, and existence of fishing ports can only be justified if fish processing plants are located in a close distance. In the region there are two ports, which can be used for deep sea and gulf fishing – Parnu port in Estonia and Salacgriva port in Latvia. For coastal fishing the maximum draught of boats is around 1.5 m. In order to accommodate this watercraft, it is enough to have jetties at the sea side (there is no need for sophisticated hydraulic structures).

However, there is one advantage for building of fishing ports – availability of the EU structural funds (FIFG). It can be the case that it is much easier to raise funds for construction of fishing port (for trawlers with a draught of 3.5 – 4 m used for gulf fishing) and to use the port also for accommodation of yachts. It is a viable option for yacht harbours, however, it is not recommended to have a joint fishing port with marina (marinas usually provide services with higher value added, therefore possible disturbance of fishing fleet and especially inland fish processing should be avoided).

Construction of yacht harbours or marinas is considered the most viable alternative.

The following rationale justifies the feasibility of development of yacht harbours/marinas and fishing ports in Ainazi, Salacgriva and Haademeeste municipalities:

- Rapid increase of incoming tourism in Latvia and Estonia, including increasing number of yacht calls (e.g., from year 2000-2004 in Latvia the growth of GDP in tourism sector amounted to 65%, the number of serviced tourists in hotels and other tourist accommodations – 176%, number of yacht calls in ports of Latvia – 275%);
- Increase of welfare of population in Latvia and Estonia, which is expected to increase at even higher rate after joining of both countries to the EU; rising living standards increase demand for recreational services: there are 7 inhabitants per watercraft in Finland, while in Latvia 267 inhabitants per watercraft (Latvia has 12 yacht harbours, Estonia more than 50, but Finland more than 800 yacht harbours and marinas);
- Favourable geographical location: Ainazi, Salacgriva and Haademeeste ports are located approximately 115-150 km from Riga and 185-219 km from Tallinn; ports are located in 150 km proximity to the main urban centres (Valmiera, Cesis, Limbazi,

Valka, Parnu Kuressaare, Viljandi etc.); ports are next to the Latvian-Estonian border, which provides opportunities for cross-border tourism;

- North Livonia territory is a stop between capitals of two countries on the Via Baltica motor way (Riga can be reached by car in 1.2 - 2 hours; Tallinn in 2-2.5 hours);
- National wealth of both countries are located in their capitals; inhabitants of Tallinn and Riga need an outdoor facilities for leisure time and entertainment;
- Although there are several marinas in Latvia, there are no marinas, which are exclusively planned for yachtsmen (all existing marinas are located in big commercial ports); it means that there is no top quality service in marina business and Ainazi port could become a satellite marina for recreational boaters from Riga (use of permanent berths);
- The price level is still very different in the Baltic states and Western Europe as well as Scandinavia, therefore ports in North Livonia have opportunity to offer a food quality and low or medium cost services to boaters from other Baltic countries (includes mainly dry docking and repair of watercraft);
- North Livonia is rich in beautiful landscapes, intact nature and interesting coastal heritage: tourism assets especially attractive for international yachting community.

If Ainazi, Kuivizi, Jaagupi and Treimani ports are compared, it is possible to develop marinas in all these places. However, Ainazi port has some comparative advantages. First, Ainazi has a port territory of 39.5 ha, which is absolutely uninhabited and suitable for a “green field” harbour. Second, Ainazi has a natural depth of access channel suitable for entrance of yachts and does not get choked with sand. Third, there are more opportunities for inland services, as Ainazi is a town while other harbours are located in villages.

## 7.5. Conclusions and recommendations

Taking into account the SWOT analysis for each of the ports, planning documentations and development policies of the municipalities, results of stakeholders’ interviews and ports business intentions and plans, the following general strategy for the ports of the municipalities of Salacgriva, Ainazi and Haademeste is recommended:

- Salacgriva port – commercial and fishing port (sea fishing);
- Kuivizi port – fishing port (gulf and coastal fishing);
  - can be used for yachts (service taken over from Salacgriva port);
- Ainazi port – a full service Blue Flag marina;
  - possibility also to serve small ferries (catamaran type)
  - possibility also to serve coastal fishing boats;
- Jaagupi port – fishing port (gulf and coastal fishing);
  - can be used for yachts;
- Treimani port – fishing port (gulf and coastal fishing);
  - can be used for yachts.

## 7.6. Case studies of marinas

This chapter includes three case studies about development and operation of marinas in Europe.

The Case Study No 1 is a good example of basic principles of operation of marina – Port Napoleon in France, which is considered to be one of the biggest dry docking places of yachts in Europe.

### **Case Study No. 1. Port Napoleon in France**

Port Napoleon is excellent yacht harbour operating model providing very good understanding of components of full service yacht harbour (marina) and pricing for the services.



**Territory and location.** Port Napoleon is a new port on the South Coast of France. Its territory is 13 ha and it is situated at the town Port-Saint-Louis-du-Rhone in the estuary of the river Rhone. The port can be easily accessed by sea and road, railway station and airports also are reachable within 0.5 – 1 h time. The big advantage of the port's location is being in the middle of sailing between Spain and Italy, which is one of the busiest sailing areas in the Mediterranean.

**Facilities and services.** The port contains modern berthing, storage and maintenance facilities for boats; accommodation, catering and leisure facilities for the crew within the territory of the port; and easy linkage to the inland leisure and business activities within the region (Avignon, Marseilles, Martiques, Arles etc.).

*Basic services for boats.* Water and electricity are provided on pontoons and storage places. Fuel delivery also is available.

*Yacht storage services.* The port can accommodate boats with maximum draught 4.5 m and length 40 m. Storage services are divided into three groups: *water storage* - there are pontoons providing 250 berths and quay for large (up to 40 m) yachts; *dry on ground storage* – wide territory of the port allow to place 2000 yachts; and *dry indoor storage* – there is 12000 sq.m space for 200 yachts.

*Equipment for yacht relocation.* For yacht launching in and lifting out of water, as well as for relocating yachts on ground, there is special equipment available - boat hoist with capacity of 20 t – 65 t, hydraulic trailer with capacity 30 t – 45 t – 65 t, and crane with capacity of 20 t – 75 t.

*Maintenance and repair of boats.* Shipyard of the port provides maintenance and repair services. Besides, there are specialized workshops providing carpentry, electricity, electronics, and mechanics services and painting service.

*Yachts brokerage.* There is also ANCASTA broker office represented within the territory of the port.

*Facilities and services for the crew.* Along with the basic facilities like shower, WC, laundrette, a crew of a yacht can enjoy meal in a Lighthouse Restaurant, spend a peaceful night in a bungalow, get information about tourism possibilities, and hire a car or bicycle and/or use the shuttle service to reach interesting inland leisure and sightseeing places.

**Pricing policy.** Prices of the Port Napoleon are grouped in accordance with the provided service group: storage, relocation (lifting, launching, dismasting, handling, etc.), maintenance and repair (washing, painting, repairing works, etc.), communication (internet, fax, telephone, etc.), transport (shuttle, bicycle/car hire, etc.)

*Prices of storage services.* Storage prices of yachts in the Port Napoleon are determined by two main parameters – length of the boat and period of storage time. Water storage during the low season (01.10.–31.03) is approximately 35% cheaper than during the high season (01.04.–30.09). Prices for dry on ground storage are approximately the same as water storage during the low season, if compared a day, week and month storage time. But one year dry storage on ground is significantly, around 50% less than water storage for the same period of time. Indoor storage is the most expensive. One month indoor storage costs 40% more than dry on ground storage and 35% more than water storage during the low season, but 5% less during the high season. Special price is offered for the yachtsmen using the Port Napoleon all the year. This is the formula “6 x 6” – six months water storage and 6 months dry on ground storage. The economy for a yachtsman is around 25% of regular price.

*Prices of equipment.* Mainly prices for equipment use, such as crane, jet wash machine and trailer are constant for the period of time. Only use of travel lift also depends on the length of boat. There is 20% discount for clients signing a year dry storage contracts.

*Prices of other services.* Port Napoleon has determined prices nearly for all possible bigger and smaller services, like ladder, container, bicycle renting and also for sending a fax, booking a taxi, etc.

**Source:** Port Napoleon, [www.portnapoleon.com](http://www.portnapoleon.com)

Case Study No. 2 provides a good example about building or partnerships for development of Cahersiveen Marina in Ireland.

### **Case Study No. 2. Cahersiveen Marina in Ireland**

Cahersiveen Marina development case is a good example of a unique partnership of voluntary community, local authority and state in order to develop small Ireland's harbour with some fishing facilities into 105 berths marina.



**Background.** In mid 80's town Cahersiveen faced serious threat of rural decline, in spite of being a part of "The Ring of Kerry" – one of the most famous tourist areas of Ireland. The Cahersiveen harbour had some facilities for local fishermen, but was totally undeveloped for tourism and leisure. Against this backdrop and in order to unify forces to make things happen positively into the area, the Cahersiveen Community Development Company ACARD Ltd. was formed. The company found out that marina and water activity centre would be good regeneration project enhancing local economic and tourism development.

**Development.** With a total cost of 3.23 million EUR (excluding VAT), Phase 1 of the Cahersiveen Marina development started in April 2000 and was completed in August 2002. The marina was awarded 2.54 million EUR exchequer funding, and these funds were matched by community funds of 687 000 EUR, raised through the long term (10 years) berths lease, bank borrowing and fund raising activity. ACARD Ltd. employed full time project manager to oversee the Phase 1 completion. Achievements of Phase 1:

- marina infrastructure, pontoons and dredging;
- private leisure berth available;
- temporary on-shore structures (toilet, shower, training facilities);
- Cahersiveen Sailing Club established and developed Sailing school;
- 1 full time and 4 seasonal working places at the marina. Besides, economic benefits for local businessmen in terms of accommodation, restaurant, provision, etc.;
- increased sport and leisure activity in Cahersiveen.

**Key issues.** From the ACARD Ltd. experience, one of the key success factors was the decision to engage full time project manager to oversee all Phase 1 process. The project manager provided smooth co-operation between parts involved in the project. Other factor was long term approach to achieve milestones in three phases, rather to complete developing in one round of funding. And to keep project within budget, all were negotiated as fixed cost contracts.



**Current Status.** During the Phase 2 there are planned to build permanent On-shore facilities and a purpose-built Clubhouse. Phase 3 will provide boat repair facilities, including boat hoist and facility for boat over-wintering.

**Source:** Cahersiveen Marina, [www.cahersiveenmarina.ie](http://www.cahersiveenmarina.ie); "Marine Recreation and the Process of Rejuvenation of Small Ports and Harbours", project prepared by Arthur Martin and Brady Shipman Martin and supported by Marine Institute, Ireland

The Case Study No 3 is about development of marina of Kuressaare town in Saaremaa island of Estonia. This case study is a good example how to proceed with development of ports in Ainazi, Salacgriva and Haademeeste by using funds of the EU initiatives.

### Case Study No. 3. Kuressaare Marina in Estonia

Kuressaare Marina is a good example of yacht harbour development close to North Livonia region realized with support of INTERREG III A project. The harbour is 100% owned by Kuressaare town and particularly by Kuressaare Town Government. Management of the harbour is provided by Kuressaare Jahisadam Ltd. They are responsible for management and development of the harbour, quality of the services and promotion of recreational boating activities. Kuressaare Yacht Harbour received the Blue Flag award in 2004 and 2005.



**Territory and location.** Kuressaare Marina is located at Kuressaare, capital of Saaremaa (the biggest island of Estonia). Saaremaa and Kuressaare are very famous tourist destinations, especially for neighbouring countries – Finland and Latvia.

**Development.** Feasibility study of Kuressaare Yacht Harbour was carried out in 1997 and provided an overview of harbour development in two stages. Stage I Western Bank was implemented in 1999 and Stage II Eastern Bank will be completed in mid 2006.

At the end of the Stage I there was built a 2900 m long access channel with 2.5 m depth and width of 30 m. Depth at berths is 2.5 m. Number of berths is 64.

Number of visiting yachts increased faster than it was estimated in the Feasibility Study. In 2000 there were 20 visiting yachts, but in 2003 there were already 218 visiting yachts. The management experienced also demand from small crafts and small cruise (passenger) boats to come to the Kuressaare and harbour. Besides, management found out that due to the short sailing period, during the high season harbour could not receive all yachts that wanted to enter the harbour. These were the main reasons to start Stage II development and apply for INTERREG IIIA support, which was received in 2004.

*Stage II.* Stage II currently is being implemented. It was started on April of 2004 and is planned to complete in July of 2006. During the Stage II Eastern Bank development is planned for construction of 68 berths.

**Source:** Kuressaare Marina, [www.sivainvest.ee](http://www.sivainvest.ee)

## 8. Technical description of planned port infrastructure

### 8.1. Port of Ainazi – a full service marina

Planned infrastructure of the full service marina in Ainazi will include: safe and easy sea access provided by a sufficiently wide and deep access channel and aids to navigation. The access channel leads to the actual marina entrance that is formed by the opening between the two protective breakwaters. In view of the strict wave height limitations in relation to comfort and safety, breakwaters are a prerequisite to create a sufficiently calm marina basin. A system of floating jetties installed within the basin forms the actual berthing facilities.

Planned capacity of the marina is 150 berths for permanent yachts and 50 berths for visiting yachts during the first phase of development (2009-2012).

After completion of construction works of the second phase (2013) it will be equipped with 200 additional berths - 50 for visiting yachts and 150 for permanent yachts. The marina will be able to accommodate yachts with a maximum draught of 3.5 m and maximum length of 15 m.

At the berths of a modern marina various types of utilities are provided, like potable water, electrical power, telephone, cable TV and internet. The range of utilities in Phase I will depend on the requirements of the marina operator.

Boatside facilities like waste reception facilities and a fuel dock (for the dispensing of boat fuel) will also be included.

Further facilities comprise a boat launch ramp which is basically a sloped paved surface designed and constructed for launching and retrieving trailered boats and other watercraft to and from water. Since the ice conditions require that all boats (hence also the larger yachts) shall be in a dry storage during winter, a boat hoist facility is also required. Both open and, probably, covered storage facilities will be provided for boats over-wintering. In the territory of the port a place will be allocated to build a hangar for covered dry storage of watercraft.

Easy and clear road access shall be provided to all facilities. Sufficient parking places shall be provided for cars and trailers; the overall number of parking places in Phase I is 100 for cars and 20 for car/trailer combinations. Three parking lots are envisaged to minimize walking distances.

A Harbour Master's office/administration building shall be provided. It can be combined with various facilities to provide the basic services for yachtsmen. An information centre (tourist information, weather), restroom facilities (inclusive of toilets, urinals, washbasins and showers), yacht club or shops, bars/restaurants, etc., could be integrated.

Phase I infrastructure will occupy approximately 3 ha of the 39.5 ha land territory assigned for "port-related" activities. The overall water area of the marina basin in Phase 1 is approximately 4 ha. Hydraulic structures for the first construction stage of the marina is planned to be:

- New build the Southern breakwater of 350 m;
- New build the Northern breakwater of 280 m;
- New build revetment of 300m;
- Floating jetties for yachts.

The depth of the access channel will be 4.25 m, width 40 m and length 1500 m. The depth of the dredged marina basin will also be 4.0 m.

Planned capacity of dry storage place is for 200 boats (2009-2012) with extension to 400 beginning with year 2013. It is expected that calls of yachts will increase from 50 (2009) to 1153 (2019), accordingly the number of visitors arriving with visiting yachts will be 190 and 4381 persons respectively.

The preceding information should be taken into account for HM office/administration building's engineering networks (electricity and water supply, sewerage, etc.) calculations and installations in order to provide good quality basic services (shower, WC, electricity, internet, etc.).

Onshore Phase I infrastructure is planned to be:

- Administration building of 150 m<sup>2</sup>;
- Outdoor dry storage place of 12000 m<sup>2</sup>;
- Covered storage (depending from operator) of 2000 m<sup>2</sup>;
- Car parking place for 100 cars;
- Access road.

Development of other onshore facilities (hotels (e.g. of cottage type), restaurants, boat and bicycle rentals, amusement parks, recreational villas, picnic areas, camping/recreational vehicle sites, etc.) depends on overall development strategy of the Ainazi municipality (North Livonia region) and private businessmen activity and/or level of public and private partnership. Unoccupied port territory left for onshore development (after utilisation of the area needed for Phases I and II development) will be approximately 30 ha.

According to forecast of incoming yachts, the Phase II development by carrying out the marina extension with 200 new berths (50 for visiting and 150 for permanent yachts) is recommended to be implemented in year 2013.

## **8.2. Port of Kuivizi – a fishing port (gulf and coastal), can be used for yachts**

Infrastructure of the fishing harbour is planned to accommodate 40 small fishing boats with maximum length of 10 m and maximum draught of 1.5 m, 3 fishing trawlers with maximum length of 40 m and maximum draught of 3.5 m and 35 yachts (10 permanent berths and 30 visiting yacht berths, maximum draught 3.0 m, length 10 m) in Phase I.

Planned infrastructure will occupy approximately 1 ha land territory and approximately 1 ha water area. Length of shipping channel is planned to be 1000 m, width 40 m and depth 4.5 m. Hydraulic structures is planned to be:

- Reconstruction of the Northern breakwater of 150 m;
- Reconstruction of the Southern breakwater of 150 m;
- New build revetment of 200 m;
- New build berths for fishing vessels of 40 m;
- Floating pontoons for yachts;
- Pier for small coastal fishing boats.

Onshore it is planned to integrate already existing fish refrigerate plant with planned newly built administration building and newly developed fish landing and transshipment facilities and equipment. For convenient port access is planned to construct access road and parking place. Administration building should be designed to provide space for port management and basic services (shower, WC, information point, internet, café, rest area, etc.) for yachtsmen. Development of onshore facilities should be harmonized with the already developing tourism infrastructure (camping) close to the port of Kuivizi.



### **8.3. Port of Jaagupi – a small fishing and yacht harbour**

Infrastructure of the fishing harbour is planned to be able accommodate 40 small fishing boats with average length of 11 m and maximum draught of 1.5 m, 3 fishing trawlers with maximum length of 30 m and draught of 3.5 m, and 50 yachts (15 permanent berths and 35 visiting yacht berths, maximum draught 3.0 m, maximum length 10 m) in Phase I.

Planned infrastructure will occupy approximately 1 ha land territory and approximately 2 ha water area. Length of shipping channel is planned to be approximately 1000 m, width 30 m and depth 4.5 m. Hydraulic structures is planned to be:

- Upgrading and extension of the Northern breakwater of 150 m;
- Upgrading of the Southern breakwater of 100 m;
- New build revetment 300 m;
- New build berths for fishing vessels of 40 m;
- Floating pontoons for yachts;
- Pier for small coastal fishing boats.

Onshore it is planned to integrate already existing fish processing plant with newly built administration building and newly developed fish landing and transshipment facilities and equipment. For convenient port access it is planned to construct access road and parking place. Administration building should be designed to provide space for port management and basic services (shower, WC, information point, internet, café, rest area, etc.) for yachtsmen.

### **8.4. Port of Treimani – a small fishing and yacht port**

Infrastructure of the fishing harbour is planned to be able to accommodate 30 small fishing boats with maximum length of 12 m and maximum draught of 1.5 m, and 50 yachts (15 permanent berths and 35 visiting yacht berths) in Phase I.

Planned infrastructure will occupy approximately 1 ha land territory and approximately 2 ha water area. Length of the shipping channel is planned to be approximately 1000 m, width 30 m and depth 4.5 m. The following hydraulic structures will be provided:

- Reconstruction the Northern breakwater of 150 m;
- Reconstruction of the Southern breakwater of 150 m;
- New build revetment of 250 m;
- Floating pontoons for yachts;
- Separated pier for small coastal fishing boats.

Onshore it is planned to integrate already existing fish processing plant with newly built administration building, newly developed fish landing, transshipment facilities and equipment. For convenient port access it is planned to construct access road and parking place. Administration building should be designed to provide space for port management and basic services (shower, WC, information point, internet, café, rest area, etc.) for yachtsmen.

## 9. Preliminary investment costs and sources of financing

### 9.1. Investment costs

#### 9.1.1. General

At this stage the preliminary investment costs have been defined based on the previous documents, investigations and technical requirements. The preliminary investment costs consist of costs related to the construction works, as well as costs related to the preparation of the designs, administration and supervision.

For calculations the current West European price level has been used (price level of 2005). These costs may deviate from the actual costs during the implementation of separate project due to changes of material costs in the world market.

#### 9.1.2. Port of Ainazi

Based on findings of the Strategy, it is recommended to developed a full service yacht harbour (marina) in Ainazi town. Due to lack of any port infrastructure this development project in fact is so called “green field” project. All the necessary constructions and infrastructure within the port territory have to be built from very basics. At the moment of elaboration of the Strategy there were two options prepared for the development of the full service marina in the port of Ainazi. Therefore, two so called “offshore option” and “inland option” were developed.

The Sketch design will be prepared for the option chosen by the Ainazi City Council. Herewith are presented the activities to be carried out and the investment costs for the 1<sup>st</sup> and the 2<sup>nd</sup> development phase.

**Table 9.1. Preliminary investment costs of Ainazi marina (in prices of 2005)\***

Activities	Phase	Unit rate (EUR)	Preliminary costs for inland option (EUR)	Preliminary costs for offshore option (EUR)
Breakwater	I	55.00	770 889	1 812 597
	II	55.00	0	875 235
Revetment	I	25.00	207 375	78 750
	II	25.00	81 375	36 750
Excavation works	I	3.00	858 368	0
	II	3.00	344 138	0
Dredging of basin	I	3.00	0	555 488
	II	3.00	0	304 688
Dredging of access channel	I	3.00	135 597	54 663
Access roads, yards, external utility networks	I	35.00	640 260	640 260
	II	35.00	420 000	420 000
Service building, utilities, fence	I		100 000	100 000
	II		20 000	20 000
Marina	I		100 000	100 000
	II		100 000	100 000

Total in Phase I	I		2 812 489	3 341 758
Total in Phase II	II		965 513	1 756 673
Engineering, surveys, administration	I	10%	281 248	334 175
Contingencies	I	15%	421 872	501 262
Engineering, surveys, administration	II	10%	96 551	175 667
Contingencies	II	15%	144 826	263 500
Total Phase I			3 515 609	4 177 195
Total Phase II			1 206 890	2 195 840
VAT Phase I		18%	632 810	751 895
VAT Phase II		18%	217 240	395 251
<b>Grand total Phase I</b>	I		<b>4 148 419</b>	<b>4 929 090</b>
<b>Grand total Phase II</b>	II		<b>1 424 130</b>	<b>2 591 091</b>
<b>Grand total</b>	I + II		<b>5 572 549</b>	<b>7 520 181</b>

\*Covered dry storage if watercraft is not included (in prices of 2005 preliminary costs amount to 3.641 mil. EUR)

It can be seen from Table 9.1. that the “inland option” is cheaper than the “offshore option”, therefore the “inland option” was selected as the economically viable option for the financial analysis (see Chapter 10.1. “Financial analysis”).

### 9.1.3. Port of Kuivizi

Based on the findings of the Strategy and on request of the management of Salacgriva port, it is assumed that the port of Kuivizi (a satellite port of Salacgriva port) will be developed as a port for yachts and small fishing vessels.

Preliminary investment costs are based on estimates of the eventual upgrading works of the port infrastructure. It is assumed that all works will be done in one phase.

**Table 9.2. Preliminary investment costs of Kuivizi fishing and yacht harbour**

<i>Activities</i>	<i>Preliminary costs (EUR)</i>
Reconstruction of Norther breakwater	225 000
Reconstruction of Southern breakwater	225 000
Revetment	230 000
Dredging works	150 000
Access roads, yards	175 000
Service building, utilities, fences	50 000
Marina	50 000
<b>Total</b>	<b>1 105 000</b>
Design, survey, administration (10%)	110 500
Contingencies (15%)	165 750
<b>Total</b>	<b>1 381 250</b>
VAT (18%)	248 625
<b>Grand total</b>	<b>1 629 875</b>

#### 9.1.4. Port of Jaagupi

Based on findings of the Strategy it is assumed that port of Jaagupi will be developed as the port for yachts and small fishing vessels. Currently the port infrastructure is in a poor technical condition and is not suitable for accommodation of yachts and small fishing vessels. Serious dredging works have to be carried out, reconstruction of the breakwaters and the extension of the Northern breakwater, protection of the slopes of the inner basin, installation of marina, reconstruction of access road, construction of the service building and utilities, construction of a small berth for fishing vessels is needed.

Preliminary investment costs are based on estimates of the eventual upgrading works of the port infrastructure required in accordance with specific requirements. It is assumed that all works will be done in one phase.

**Table 9.3. Preliminary investment costs of Jaagupi fishing and yacht harbour**

<i>Activities</i>	<i>Preliminary costs (EUR)</i>
Reconstruction of Northern breakwater	230 000
Reconstruction of Southern breakwater	100 000
Small berth for fishing vessels (L=30m)	200 000
Revetment	230 000
Dredging works	300 000
Access roads, yards	150 000
Service building, utilities, fences	50 000
Marina	50 000
Total	1 310 000
Design, survey, administration (10%)	131 000
Contingencies (15%)	196 500
Total	1 637 000
VAT (18%)	246 060
<b>Grand total</b>	<b>1 883 060</b>

#### 9.1.5. Port of Treimani

Like port of Jaagupi, port of Treimani is recommended to be developed as the port for yachts and small fishing vessels. Currently the port infrastructure is in a poor technical condition, there are no navigational signs and it is accessible only for small yachts or small fishing boats. Maintenance dredging works have to be carried out, upgrading of the breakwaters, protection of the slopes of the inner basin, installation of marina, reconstruction of access road, construction of the service building and utilities, reconstruction of the existing two berths for accommodation of yachts and fishing vessels is required.

Preliminary investment costs are based on estimates of the eventual upgrading works of the port infrastructure required in accordance with technical requirements. It is assumed that all works will be done in one phase.

**Table 9.4. Preliminary investment costs of Treimani fishing and yacht harbour**

<i>Activities</i>	<i>Preliminary costs (EUR)</i>
Reconstruction of Norther breakwater	50 000
Reconstruction of Southern breakwater	50 000
Small berth for fishing vessels (L~80m)	200 000
Slope protection	200 000
Dredging works	150 000
Access roads, yards	50 000
Service building, utilities, fences	50 000
Total	750 000
Design, survey, administration (10%)	75 000
Contingencies (15%)	112 500
Total	937 500
VAT (18%)	168 750
<b>Grand total</b>	<b>1 106 250</b>

## 9.2. Sources of financing

There are the following main sources of financing for development of NRCR ports:

- Municipal budget – budget resources, including basic (used to finance core functions of municipalities) and special (used to finance earmarked municipal functions, e.g. maintenance of roads) budgets, of NLCR municipalities;
- State budget – state budget available from State investment programmes or national programmes tailored to development of ports;
- EU structural funds – ERDF for support of development of port infrastructure and FIGG for support of development of fishery (including renovations and reconstruction of fishing harbours);
- EU initiatives – the EU initiatives for cross-border development (e.g. INTERREG III A);
- Bilateral funds – funding provided by governments of the EU member countries (Netherlands, Norway, Sweden, Denmark etc.) based on signed bilateral agreements of foreign aid;
- Private funds – funds raised by private partners through public-private partnership arrangements (see Chapter 11 “Procurement strategy”).

Municipal budget is the most reliable source of finance but at the same time the most limited one. It is a very useful tool of co-financing of projects, where funds are provided by the EU or by the state.

State budget is a very significant source of finance, if development of ports is considered as a priority. After availability of the EU funds planning of national investment programmes are closely linked to planning documents of the structural funds. Usually there is a very tough competition for state funds, and development of small fishing ports and yacht harbours is not considered as a priority.

There are two main structural funds available to finance development of fishing and yacht ports: the ERDF and the FIGG. As it was mentioned in Chapter 5 “Transport, maritime and

tourism policies in the Baltic Sea region”, during the programming period 2004-2006 construction of yacht harbours/marinas in both countries was not considered as eligible activity neither under development of transport infrastructure nor development of tourism infrastructure. There is also no evidence that such activities will be supported during the next programming period (2007-2013). Regarding FIFG, the situation is more favourable. The Administrator of Salacgriva port indicated that the municipality of Salacgriva had submitted a project application for the call of projects to be financed from the FIFG (to develop Kuivizi port as fishing port). The result of the tender is not yet known. If Salacgriva municipality receives funding of the FIFG, the reconstructed port will be used for fishing vessels as well as yachts. It can be concluded that the structural funds can be used mainly for development of fishery, and development of yacht harbours is subordinated issue. It is relevant for yacht harbours like Kuivizi, Treimani and Jaagupi, but it is not a viable solution for Ainazi (where a marina instead of a fishing port/yacht harbour is planned).

The EU initiative INTERREG III A is a very attractive option for development of yacht harbours/marinas (see Chapter 7.5. “Case studies of marinas”). It is expected to start the programming cycle of the initiative during the second half of year 2007. If technical designs are prepared, municipalities in Latvia and Estonia are eligible to apply for investment financing.

Bilateral funds can also be attributed to promising sources of financing. For example, Government of Netherlands has a special programme for development of ports, including small commercial ports and yacht harbours, marinas. The Norwegian Financial Instrument also has to be mentioned (the programme will be available in Latvia and Estonia starting from the mid of 2006).

It can be concluded that for development of yacht harbours/marinas particularly, the most appropriate sources of financing are EU initiatives (INTERREG III A) and bilateral funds. For development of fishing ports also the FIFG can be considered as an important source of funding.

Regarding rising of funds from the private sector please refer to Chapter 11 “Procurement strategy”.

## 10. Financial and economic analysis

### 10.1. Financial analysis

The preliminary financial analyses have been carried out for the following ports: Ainazi, Kuivizi, Jaagupi and Treimani. For Salacgriva municipality only Kuivizi harbour was analysed, because Salacgriva already has a clear vision of development of Salacgriva commercial port (see Chapter 7.1.1. “Summary of the Business plan of Salacgriva port”).

#### *10.1.1. Methodology and assumptions*

The financial analysis of development of harbours in the NLCR is carried out in accordance with “Guide to cost-benefit analysis of investment projects for ERDF, the Cohesion Fund and ISPA”.

The financial analysis includes quantified benefits and costs, which are attributable to direct beneficiary, e.g. municipalities or private partners (if they have agreement with municipality about lease of land and operation of the port). Costs (both investment and variable) are adjusted for inflation. According to the ToR, a more detailed analysis is required for Ainazi port, therefore the macro-economic forecast of the Ministry of Finance of Latvia has been applied (2006: 3.2%, 2007-2010: 2.5%, 2011-2030: – 2%). In the Latvian and Estonian construction sector of port infrastructure the price level is already adjusted to prices of the Western Europe. Therefore, consumer price index can be used as a proxy for inflation forecast (in general, the increase of price level in the construction sector amounts to 10-15% per annum and this growth rate have been used for calculation of construction of the hangar for dry storage of watercraft in Ainazi marina).

The project life cycle for all four ports included in the analysis is 30 years (2007-2036, for Kuivizi 2006-2035). It is assumed that on average 2 years will be needed for fund rising, procurement, elaboration/completion of technical design and completion of works. The first year of full operation of the ports is assumed to be 2009 (2008 in Kuivizi). In case of Kuivizi and Treimani ports it is possible to commence yachting services before 2009 (in comparison with Ainazi, these ports already have partially built port infrastructure).

It has been concluded in Chapter 7 “Strategy formulation for ports of Ainazi, Salacgriva and Haademeeste” that development of commercial port is not an economically viable solution. The financial analysis provides additional evidence to this statement and includes a rough analysis of this alternative.

Economic analysis, besides financial benefits and costs, includes indirect benefits and costs born by secondary stakeholders – national governments, municipalities, providers of inland marina services, the society in general. Economic analysis of development of harbours in the NLCR is provided in a descriptive form, based on findings of researches made in Scandinavia and the United States about economic impact of marinas.

Costs and benefits are expressed in EUR. FRR and FNPV are used as indicators of the financial return on investment. A discount rate used in calculation of FNPV is 5%, which is assumed to reflect opportunity costs of capital. FRR and FNPV are calculated on the cash flow basis, where financial benefits include sales and costs include operating costs, equity and loan (repayment of principal and interest of 4% by using the annuity repayment schedule).

The baseline assumptions about technical parameters of port infrastructure are provided in Table 10.1., based on information given in Chapter 8 “Technical description of planned port infrastructure”.

**Table 10.1. Technical parameters of port infrastructure**

Name/type of port	Total capacity (Phase I)	Width of navigation channel	Depth of navigation channel	Parameters of vessel/boat
Ainazi (yacht)	Visitor berths: 100 (50) Permanent berths: 300 (150)	40 m	4.25 m	Max length: 15 m Max draught: 3.5 m
Ainazi (commercial)	Number of berths: 2 (2 x 180 m)	80 m	6.5 m	LOA: 115 m B = 15 m T = 5,5 m DWT = 4000 t
Kuivizi (yacht)	Visitor berths: 30 Permanent berths: 10	40 m	3.5 m	Max length: 10 m Max draught: 3.0 m
Kuvizi (fishing)	Number of berths (boats): 40 Number of berths (trawlers): 3	40 m	4.5 m	Max length: 10 m Max draught: 1.5 m Max length: 40 m Max draught: 3.5 m
Jaagupi (yacht)	Guest berths: 35 Permanent berths: 15	30 m	3.5 m	Max length: 10 m Max draught: 3.0 m
Jaagupi (fishing)	Number of berths (boats): 40 Number of berths (trawlers): 3	30 m	4.5 m	Max length: 11 m Max draught: 1.5 m Max length: 30 m Max draught: 3.5 m
Treimani (yacht)	Guest berths: 35 Permanent berths: 15	30 m	3.5 m	Max length: 10 m Max draught: 3.0 m
Treimani (fishing)	Number of berths (boats): 30	30 m	3.5 m	Max length: 12 m Max draught: 1.5 m

### 10.1.2. Investment costs

Table 10.2. provides preliminary investment costs for construction of harbours in Ainazi, Kuivizi, Jaagupi and Treimani, based on information provided in Chapter 9.1. "Investment costs" (information about investment costs of a commercial port in Ainazi are given, based on preliminary estimates and using assumptions set forth in Table 10.1.). Investment costs are indicated in prices of a particular year, when investment is planned to be carried out.

**Table 10.2. Preliminary investment costs for construction and reconstruction of ports (EUR)**

Name/type of the port	Ainazi	Kuivizi	Jaagupi	Treimani
Marina	400 975 (2006-2007) 4 110 004 (2008) Phase I: 4 510 979 151 943 (2011) 1 557 417 (2012) Phase II: 1 709 360 Phase I+II: 6 220 339*	--	--	--
Small commercial port	14 279 640 (2007-2008)	--	--	--
Fishing port/ yacht harbour	--	157 540 (2006-2007) 1 614 781 (2007-2008) Total: 1 772 321	186 767 (2007) 1 914 356 (2008) Total: 2 101 123	106 927 (2007) 1 096 005 (2008) Total: 1 202 932

\* In the preliminary cost estimate there is not included the construction of hangar for inside storage of yachts. The total floor space needed to accommodate 100 units of watercraft is 3750 sq. m (the average length of watercraft is 10 m). The cost of hangar in 2008, which is assumed to be the earliest possible year of construction, is 2.2 million EUR



### 10.1.3. Operation and maintenance costs

In case of Ainazi marina the variable costs amount to 49% and fixed costs 51% of total operating costs. From total operating costs the highest share constitutes salaries (including employer's social tax) of port administration (29%), salaries (including employer's social tax) of port attendants (17%), transportation costs (14%) and marketing costs (13%). Port infrastructure maintenance costs amount only 4% of total operating costs, because Ainazi port is almost not choking with sand. The cost structure of Ainazi marina is similar to other yacht harbours covered in this Strategy.

If we consider operation costs of the fishing port (operated jointly with yacht harbour, e.g. in Kuivizi, Jaagupi and Treimani), the cost structure is similar to the cost pattern in Ainazi marina: variable costs amount to 48% and fixed cost 52% of total costs.

For additional information please refer to Annex X "Assumptions used in calculation of the financial return on investment for Ainazi, Kuivizi, Jaagupi and Treimani ports".

### 10.1.4. Sales forecast

The forecast of yacht calls in ports of Ainazi, Kuivizi, Jaagupi and Treimani is provided in Table 10.3.. The comparatively big number of yacht calls in Kuvizi is explained by the fact that Salacgriva Port Authority plans to shift a yacht harbour from Salacgriva commercial port to Kuivizi port (in 2004 there were 150 calls in Salacgriva port, the average growth rate of calls during the last 7 years was 127%). Regarding Jaagupi and Treimani ports the forecast of yacht calls is assumed to be the same because in both harbours it is planned to have the same number of visitor berths (35).

**Table 10.3. Forecast of yacht calls in ports of North Livonia (2009-2036)**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2025	2030	2036
Ainazi	50	150	250	350	420	504	605	726	871	1045	1254	1681	2104	2512
Kuivizi	180	198	218	240	264	290	319	351	386	424	467	626	768	917
Jaagupi	35	75	150	200	250	280	314	351	393	433	485	693	884	1056
Treimani	35	75	150	200	250	280	314	351	393	433	485	693	884	1056

In year 2004 the average proportion between calls of yachts and number of visitor berths in the Latvian yacht harbours was 11:1 (e.g. in Ventspils marina the ratio was 16:1, while in Salacgriva it was 6:1). For Pirita TOP marina the ratio in 1995 was 29:1. Based on data provided in Table 10.3., the forecast of yacht calls in above mentioned ports of North Livonia can be considered as conservative. It is assumed that the maximum occupancy rate of permanent berths will not exceed 90%.

In Table 10.4. there is included information about present value of categories of sales forecast in case of Ainazi marina. The sales structure is similar for other ports, if operation of yacht harbour is considered (except that dry storage is planned only in Ainazi marina).

**Table 10.4. Present value of sales forecast by type of category, Ainazi marina (as of 2007)\***

<i>Sales category</i>	<i>Present value</i>	<i>Share in total sales</i>
Revenues from visitor berths	305 056 EUR	3%
Revenues from permanent berths	2 434 738 EUR	24%
Revenues from dry storage	2 207 953 EUR	22%
Revenues from lease of land	4 526 731 EUR	44%
Other berthing related services	148 919 EUR	1%
Other storage related services	613 320 EUR	6%

\*The project life cycle used in calculation of the present value is 30 years

It can be concluded from the table above, that revenues from visitor berths and berthing related services (electricity, shower, sauna, laundrette, fuel) amount only to 4% of total forecasted revenues, which is a negligible amount. The highest revenues are from lease of land in the territory of the port (44%), revenues from permanent berths (24%, 150 berths until 2012, 350 berths after 2012) and from dry storage (22%, 200 places until 2012, 400 places after 2012). It means that operator of the port can benefit mainly from selling of permanent berths (8 months a year) and storing of watercraft (using these permanent berths) in a dry storage during winter time (4 months a year).

There are high expected revenues from lease of land because the port has a vast territory of unutilized land. It is planned to lease up to 70% of the territory of the port (39.5 ha) or use it by the port operator for provision of services, which have not been identified yet during elaboration of the Strategy. Currently Salacgriva Port Authority leases the land of Salacgriva port for 0.76 EUR/sq.m. In Ainazi port the expected leasing price in year 2009 is 1 EUR/sq.m and is expected to increase for 20% in every 5 years (according to Latvian legislation, the State Land Service reevaluates the cadastral value of land at least once in 5 years). Expected services provided at the leased land could be watercraft chartering, building and repair, catering, shopping etc.

Another type of services, which is analyzed separately from other revenues, is inside storage service. For inside storage of 100 units of watercraft a hangar is needed with the total floor space of 3750 sq.m. The preliminary cost of such hangar in prices of year 2008 is 2.2 million EUR. In order to reach the investment payback period of 20 years, the monthly price for inside storage of watercrafts should be at least 250 EUR per month. It is 5 times more than affordable price in Latvia recommended by maritime experts surveyed within the framework of the Strategy. In Port of Napoleon at the Mediterranean Sea (the port with the highest dry storage capacity in Europe) the price for inside storage is 600 EUR per month.

It is not clear whether yacht owners of Scandinavia and other states around the Baltic Sea will be willing to pay for inside storage of their yachts in Ainazi marina. In Scandinavian harbours the watercraft is left for dry storage in the open air and covered with a dustsheet. For yachts with a wooden hull the electrical heating appliances are kept inside the boat to provide a required temperature level. If necessary, the watercraft is removed from snow in order to avoid of infiltration of water during a snow-break.

More detailed analysis has to be carried out in order to assess the feasibility of inside storage facilities. Therefore, provision of such service is not included in the financial model used in the framework of the Strategy. However, in the spatial plan of Ainazi port there will be provided a space for inside storage hangar. If it turns out that construction of such physical facility is not viable, the territory can be used for dry storage of watercraft in the open air.

Regarding joint fishing ports and yacht harbours (e.g. ports of Kuivizi, Jaagupi and Treimani), revenues from lease of land (average 47%), like in the case of Ainazi marina amount to the highest share in the sales structure. 24% amount to revenues from berthing services to trawlers and fishing boats (fuel, electricity, solid waste removal etc.), 15% from berthing services (visitor and permanent berths) to yachts and 12% from yacht berthing related services.

A detailed description of services and pricing policies of yacht harbours (mainly services for the boat and for the crew) is provided in Annex IX “Services and pricing policy of yacht harbours/marinas”.

#### 10.1.5. Financial return on investment

Indicators of the financial return on investment are provided in Table 10.5. For additional information please refer to Annex XI “Calculation of the financial return on investment for Ainazi, Kuivizi, Jaagupi and Treimani ports”.

It can be seen from the table below that FRR for construction of Ainazi marina is 10%, which exceeds the assumed opportunity cost of capital (5%) for 5 percentage points. The investment payback period is 17 years. For fishing ports/yacht harbours both the FRR and FNPV are negative, because there is negative net operating revenue (operating costs exceed operating revenues).

**Table 10.5. Indicators of the financial return on investment for North Livonia ports**

Name of port	FRR	FNPV (discount rate 5%)	Investment payback period	State co-financing rate <sup>9</sup> of investment cost
Ainazi	10%*	3 424 077 EUR	17 years (marina) > 90 years (commercial port)	<70%
Kuivizi	-24%	- 1 051 956 EUR	n.a.**	<100%
Jaagupi	-26%	- 1 602 236 EUR	n.a.**	<100%
Treimani	-20%	- 782 658 EUR	n.a.**	<100%

\*The residual value of port infrastructure is not included in calculation of FRR and FNPV

\*\* The investment payback period can not be calculated, because net operating revenues is negative

According to preliminary estimates, the investment payback period for construction of the commercial port in Ainazi would exceed 80 years. The following rationale has been used for such judgement: if the net operating revenue of Ainazi port would be half of the net turnover of Salacgriva commercial port (approximately 300 000 EUR in year 2004) in order to repay the principal and interest of a loan needed for construction of Ainazi commercial port (14.2 million EUR in prices of 2005), the investment payback period would reach 95 years. It should be noted that such optimistic assumption about the net operating revenue of Ainazi commercial port is unrealistic, based on findings of Chapter 7.3. “Selection of the best strategy”.

The estimate of the investment payback period is based on the assumption that the investment costs are financed by municipalities or private partners (port administrators). It

<sup>9</sup> The co-financing rate of state financial support is calculated according to formula used in the investment projects financed by the Cohesion Fund: PV of investment/(PV of investment costs + PV of net operating revenues + PV of residual value of fixed assets). This calculation is only used to show that there is a need for public co-financing (construction of yacht harbours is not eligible from the Cohesion Fund).

can be seen from Table 10.5. that Ainazi marina has a quite long investment payback period (17 years), but for remaining ports the investment payback period can not be calculated because of negative net operating revenue. It explains why there is a need for almost 100% state financial support in order to develop fishing ports. As it was mentioned before, Salacgriva municipality has already applied for the financial support from the FIFG to support development of Kuvizi port. In general, the findings coincide with conclusions of WS Atkins International Ltd. made in 1999 in the framework of the Phare project carried out in Haademeeste municipality.

In case of Ainazi, the state co-financing rate of investment cost is 70%, if formula for calculation of the co-financing rate for the Cohesion Fund is used. It does not mean that private investors will not be willing to operate the port unless they receive 70% grant. The Cohesion Fund formula<sup>10</sup> gives a clue about the opinion of state authorities to support an investment project like construction of marina. The willingness of private partners to invest in ports of North Livonia will depend on alternative opportunities for investment of capital as well as assessment of business risks associated with operation of ports.

Another factor influencing a private partner's decision to require a state financial support is the planned financing portfolio: equity financing versus debt financing. The ideal solution would be to use a 100% equity financing. If it is not possible, a private partner will have to borrow money in order to finance construction of the port (in the Strategy it is assumed that 15% will be the equity and 85% debt financing). In case of Ainazi a private investor will have to finance payment of interest and the principal plus operating deficit of the port during the first 2 years after the start-up of the port (see Annex XI). During the first 6 years of operation of the port the net cash flow will be negative, because the net operating result (operating revenues - operating costs) will not be enough to finance annual payments of the principal and interest. In order to finance the cash flow deficit, a private partner will need equity. If the private investor does not have enough its own funds, it will not be able to implement the project without state support.

Decision of a private partner will depend on risk analysis and assumptions about whether he can forecast and influence business environment related to operation of marina/yacht harbours. If one of the main risks – the service demand risk (willingness of yacht owners and yachtsmen to use Ainazi marina) is considered to be too high, a private partner will only be able to co-finance the investment project to the extent he finds it reasonable.

The reason why Ainazi marina has the lowest investment payback period, is planned economies of scale in development of the port: high fixed costs of hydraulic structures can be offset by operating revenues from a large number permanent berth places, rent of land in the territory of the port and dry storage of watercraft.

The low rates of return for fishing ports indicate that a fishing port itself, if build from new, is not sustainable. The profitability of such ports has to be analyzed in close context with fish processing plants using services of the port. Such analysis is outside the scope of the Strategy. Representatives from local government of Haademeeste indicated that development of a fishing port is important for promotion of employment in the region. It means that construction of fishing ports have more economic than financial benefits.

For additional information please refer to Annex X "Assumptions used in calculation of the financial return on investment for Ainazi, Kuivizi, Jaagupi and Treimani ports".

#### 10.1.6. Sensitivity analysis

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<sup>10</sup> There are other rules and formulas used, based on a type of financial instrument and guidelines elaborated by state authorities: ERDF or FIFG as part of the state aid to private companies, ERDF and INTERREG to public institutions, etc.. There are no standard rules set forth by the EU (it is left at the discretion of national governments), the EU only regulates a maximum ceiling of co-financing from the EU structural funds and initiatives.

Sensitivity analysis includes assessment of changes in value to financial results of the project for the variables provided in Table 10.6.. Ainazi marina has been used as the case study, because it is the only port, which yields positive return on investment.

Information on results of sensitivity analysis is available in Table 10.6.. FRR is used as the financial performance indicator. A variable is assumed to be sensitive if a change in its value creates change in FRR on investment for 10% or more.

**Table 10.6. Sensitivity analysis of the financial return on investment (Ainazi marina)**

<i>Variable</i>	<i>Rate of change</i>	<i>FNPV Change of FNPV</i>	<i>FRR</i>	<i>Switching value</i>
Reduction of places/decrease of demand for permanent berths	10%	3 141 972 EUR (-282 105 EUR)	10%	Exceeds 100%
Reduction of places/decrease of demand for dry storage	10%	3 179 539 EUR (-244 538 EUR)	10%	Exceeds 100%
Reduction of the area of port territory for lease	10%	3 040 698 EUR (-383 379 EUR)	9%	85%
Reduction of the leasing price of land	10%	3 030 929 EUR (-393 148 EUR)	9%	85%
Cost overrun on the capital expenditure	10%	2 957 632 EUR (-466 445 EUR)	9%	82%
Increase of operating costs	10%	3 140 350 EUR (-283 727 EUR)	9%	135%

As it can be seen from the table above, the most sensitive variable are capital expenditure, leased territory of the port and price per leased sq.m as well as investment costs: a 10% change in values of these variables reduces FRR for at least 10% (e.g. one percentage point).

#### 10.1.7. Risk analysis

The risk analysis have been analyzed, using Ainazi marina as the case for yacht harbour and Kuivizi, Treimani as the case for fishing port. In both cases the two most important risks for an investor are service demand risk and cost overrun risk (either because of increase of physical and price contingencies or failure to reach construction deadline).

The cost overrun risk is usually taken over by a private partner, who has an expertise in port building and management. Municipalities of Salacgriva and Ainazi have approved the spatial plan of their towns, which includes identified territories for ports. According to national environmental legislation of both countries, there is no requirement for a full environmental impact assessment. However, there is a requirement to have a strategic environmental impact assessment for the Strategy itself, including impact assessment on Natura 2000 territories. It is not likely that the environmental impact assessment will create severe restrictions on use of the inland territory and aquatorium of the port. There are risks associated with construction of external engineering networks (water supply, sewerage, electricity, access road), because construction of some of these networks are regulated by national authorities or state owned companies (e.g. in case of Latvia the state joint stock

companies “Latvian State Roads” and “Latvenergo”). For Ainazi marina these issues will be covered in the Sketch design to be worked out in the framework of the Project.

In order to minimise the construction risk, it is recommended to award a turnkey contract, which includes both the technical design and construction works. If outsourcing for various reasons is not possible, it is recommended for municipality of Ainazi to provide expertise for technical design and to employ a professional works supervisor during the construction phase (which is mandatory by the national construction laws).

The service demand risk is more difficult to assess. There are the several main problems associated with this risk:

- A comparatively long investment payback period in comparison with other investment alternatives (Ainazi case);
- 44%-47% of estimated sales is planned from lease of land of the port; however, specific businesses have not been identified yet (such issues have to be dealt with in a business plan);
- A service demand risk is very crucial for construction of fishing ports, because closing down of fish processing plants will not justify investments (most likely financed by the state) in port infrastructure;
- If any port of the NLCR receives financing from the EU (e.g., the FIFG), it might have a comparative advantage against other ports (e.g., Ainazi port), which do not have access to such funds.

However, there are some opportunities, which could balance above mentioned risks:

- Once established and operated successfully, marina business is a long term business with a certain profit margin and thus a promising opportunity in the future when alternative markets will become saturated and options of “easy money” (investment payback period of up to 5 years) will come to the end;
- There are opportunities to increase a number of places for dry storage (in order to attract clients from the Western European and Scandinavian countries) as currently there are planned only 400 places after year 2012 (this number corresponds to the total planned number of visitor and permanent berths in the marina);
- A private partner, who is operating the port (mainly services to the crew and the boat), could have comparative advantages in provision of inland services in partnership with other businesses (catering, hotels, recreational places etc.).

## 10.2. Economic analysis

Detailed economic analysis is outside the scope of the Strategy, because is difficult to identify and quantify all indirect costs and benefits associated with inland services (catering, hotels, places of sightseeing and entertainment etc.) and impact of operation of harbours to different sectors of national economy. However, there is provided in formation about international findings of economic impact of yachting business on national economy.

There are the following social benefits associated with development of ports in North Livonia:

- Economic benefits occur to business entities and society in general from operation of full service marinas (service facilities + provision, leisure and inland facilities);
- Employment impact: one full-time equivalent job (direct and indirect) is attributed to every 10 registered boats;
- Personal income impact: 34% expenditures by boaters results in salaries to local employers;
- Total income impact (profit, proprietary income etc.) is 60% higher that personal income impact;

- 97% of spending of recreational boaters can be attributed to economic output of the region;
- One registered boat in the United States creates approximately 4200 EUR of economic output per year in the region.

## 11. Procurement strategy

For implementation of the Strategy it is important to choose a procurement strategy, which can provide the maximum benefit to municipalities of NLCR and ensure operation of harbours as soon as possible.

In the context of the Strategy there are two types of procurement: traditional procurement and public-private partnership:

- Traditional procurement - conventional municipal ownership and operation of harbour: a method for procuring and operating a public service asset, where the public sector authority procures and finances design and/or construction of an asset and separately procures its operation or manages the finished asset itself ;
- Public and private partnership – a co-operation between public and private sector entities where a service or an asset is passed to a private partner on contractual basis for a defined period of time and terms in order to ensure provision of public services.

If municipalities want to choose traditional procurement, they have raise funds (either from own resources or from donated funds) and procure elaboration of technical designs, construction works and operation of renovated/newly built harbours.

There are two main problems associated with traditional procurement:

- North Livonia municipalities have limited budget resources and competing needs for public financing : the preliminary costs of construction of harbours are too high for municipalities to afford a construction in the short term period;
- Construction and operation of harbours/marinas is a non-core function of municipalities (e.g. not performed on regularly basis and financed by national or local taxes and no specialized know-how is available to municipalities how to run such harbours).

We are dealing with a PPP arrangement in cases when a public institution makes use of outsourcing (outside management is given a core function of a public body) or out contracting (outside management is given operational responsibility for ancillary services or non-core functions) of its public functions.

PPP type procurement is viable if there is value of money<sup>11</sup> to a public institution. There has been quite extensive research about value of money in PPP projects. In the Strategy there are mentioned only the key indicators, which can be related to construction and operation of yacht harbours:

- Division of risks – optimal allocation of risks (construction, service availability, service demand, inflation risk etc.) between public and private sector, based on competence of involved parties in risk management;
- Output based specifications and generation of revenue – if there are any payments made to a private service provider, they are based on achievement of specific output indicators (e.g., availability of berths for yachts in specified time period); service providers are responsible for selling their services to the marina market in order to retrieve investments;
- Raising of funds – private service providers are able to raise funds for capital investment in yacht harbours either through equity, debt financing or state aid; if there are not EU structural funds or other public funds available, municipalities are

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<sup>11</sup> Requirement that a procurement option represents the optimum combination of whole life cycle cost and quality of an asset to meet the user's requirements. It means that the selected option is the most economically advantageous option rather than the lowest cost option.



restricted in fund raising because of limited tax base and credit limits set forth by national governments;

- Optimization of life cycle costs – if construction works and maintenance and operation of harbour infrastructure is included in a single procurement package, private partner is motivated and possess know-how to select the optimal combination of works and services in order to minimize life cycle costs of assets during the contract period (if the concession agreement between municipality and a private partner is a long term contract for 20-30 years) ;
- Management skills of a private partner – a private service provider can provide knowledge and skills in construction and operation of yacht harbours, which municipalities do not possess.

Traditional procurement is governed by procurement laws in Latvia and Estonia. Since joining the EU the procurement legislation in both countries have been harmonized with public procurement directives of the EU.

Public and private partnerships are governed either by procurement laws or by concession laws. Procurement laws have to be applied in cases when a public body (e.g. municipality) pays to a private service provider a service fee (unitary charge). Concession laws are governing business transactions where a private service provider collects a service fee from end users of the service (for, example, district heating or integrated water services) and a public body provides all or part of concession resources (for example, land) to a service provider on contractual basis. Regarding harbours of North Livonia, most likely concession laws have to be applied, because yachting and other types of recreational boating are not core functions (like education, primary health care, social care etc.) of local governments according to national legislation.

It is evident that municipalities should enter into PPP arrangement because of restricted sources of finance and lack of management capacity. However, it is not likely that private partners will be willing to sign the concession agreement without financial support from local governments. Experience of operation of ports and harbours in Latvia and Estonia shows that there is state support provided to develop the baseline infrastructure of ports, leaving functions of port operations to a private sector.

In particular case of North Livonia, the investment payback period of yacht harbours/marinas is quite long (18-30 years) in order to assess properly the magnitude of possible risks to a private investor. The most important risk is the service demand risk: demand for permanent yacht berths and demand for rent of land in territories of ports (see Chapter 10 "Financial and economic analysis"). If a private partner is using the investment payback period as a screening device, it might decide that investment in development of yacht harbours/marinas is not viable without municipal or state support. This is much more the likely result in case of development of fishing ports, because payback period of such investment is twice of payback period for yacht harbours. In that is the case, municipalities will have to provide a start-up investment to develop the baseline infrastructure through support of the EU funds (if state aid is not available for development of yacht, fishing harbours and marinas).

Based on mentioned above, the optimal solution for development of harbours and marinas in NRCR is a mix of traditional procurement and public-private partnerships, where municipalities are responsible for construction of basic hydraulic infrastructure of ports (breakwaters, basins for yachts, access roads etc.), and private partners are responsible for remaining support infrastructure and management of ports.

## 12. Time schedule for implementation of the Strategy

Project activity plan and corresponding time schedule are worked out according to the Strategy and taking into account the time period needed for elaboration of Sketch design for port of Ainazi. Since the legal status and stage of documentation and development of each port is different, the particular activities for each port should be treated separately. In general, activities of the project can be divided into 5 main groups:

- Completion of the spatial planning and procedure for the port status obtaining for ports of Jaagupi and Treimani;
- Elaboration of sketch design of Ainazi port for the first stage (within the framework of the Project);
- Carrying out the preparation works (fund raising, technical design);
- Procurement procedure for civil work (procurement could also include establishment of a PPP);
- Carrying out of construction works.

The time schedule is highly influenced by fund raising depending on the contents and the start-up period of the next programming period (2007 – 2013) for utilization of the EU structural funds.

**Table 12.1. Time schedule for implementation of the Strategy in Ainazi port**

	Time schedule 2006 - 2009															
	2006				2007				2008				2009			
	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q
<b>Ainazi port</b>																
Acceptance of strategy by the municipality of Ainazi																
Elaboration of Sketch design of the port for the first phase																
Carrying out the preparation works for fund raising and technical documentation by municipality and consultants																
Procurement procedure for works																
Award of contract																
Construction of the port																
Procurement procedure for port operator																
Award of contract																
Construction of ancillary infrastructure and taking port facilities into operation																
Inauguration of the port																

In Table 12.1. it is assumed that the municipality carries out a traditional procurement procedure for construction of hydraulic structures and after completion of the port infrastructure selects a private partner for construction of ancillary infrastructure and operation of the port. If there is a full cycle PPP arrangement from the beginning, there will be needed only one procurement procedure. In that case a winner of the tender will finance, build and operate Ainazi marina.

**Table 12.2. Time schedule for implementation of the Strategy in Kuivizi port**

Activity	Time schedule 2006-2008											
	2006				2007				2008			
	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q
<b>Kuivizi port</b>												
Acceptance of strategy by the municipality of Salacgriva												
Elaboration of territory planning and technical design of the port reconstruction												
Carrying out the preparation works for fund raising (FIG) and technical documentation by municipality and consultants												
Procurement procedure												
Award of contract												
Reconstruction of the port												
Taking the facility into operation												
Reopening of the renovated port												

**Table 12.3. Time schedule for implementation of the Strategy in Jaagupi port**

	Time schedule 2006 - 2009															
	2006				2007				2008				2009			
	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q
<b>Jaagupi port</b>																
Acceptance of strategy by the municipality of Haademeeste (Jan 2006)																
Prosecution of the territory planning and procedure for the port status obtaining																
Elaboration of territory planning and technical design of the port																
Carrying out the preparation works for fund raising and technical documentation by municipality and consultants																
Procurement procedure																
Award of contract																
Construction of the port																
Taking the facilities into operation																
Inauguration of the port																

**Table 12.4. Time schedule for implementation of the Strategy in Treimani port**

	Time schedule 2006 - 2009															
	2006				2007				2008				2009			
	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q	1 <sup>st</sup> Q	2 <sup>nd</sup> Q	3 <sup>rd</sup> Q	4 <sup>th</sup> Q
<b>Treimani port</b>																
Acceptance of the Strategy by the municipality of Haademeeste																
Elaboration of the spatial planning and procedure for obtaining of port status																
Elaboration of territory planning and technical design of the port																
Carrying out the preparation works for fund raising and technical documentation by municipality and consultants																
Procurement procedure																
Award of contract																
Reconstruction of the port																
Taking the facilities into operation																
Inauguration of the port																

## **13. Institutional system of port management**

### **13.1. Institutional system of port management in Latvia**

Law on Ports of the Republic of Latvia determines that management of a port in Latvia should be carried out by a port authority. The port authority is an institution established by the relevant city or parish council, which is under supervision of the Ministry of Transport. The port authority comprises the board of port, which is the highest decision-making body of the port, and is headed by the port manager (appointed by the board of the port).

The board of the port is formed by the relevant city council or parish council, consisting of no more than 10 members, including the chairperson of the board, an official of the local government, one official each from the Ministry of Environmental Protection and Regional Development, the Ministry of Agriculture and the Ministry of Transport, appointed by the relevant Minister, as well as an equal number of representatives from deputies of the local government and the companies operating in the port.

Structure of the port authority, the rights and obligations of the board and of the port manager is determined by the by-law of the port authority.

The main administrative functions of a port authority (as a body governed by public law) include: determination of port fees and tariff ceiling for the services; collection of port fees and lease (rental) payments; determination of the guarding and pass arrangement in the port; monitoring the compliance with the port regulations and control the protection of the ports territory against pollution.

The main functions of a port authority (as a body governed by private law) include: formulation and implementation of development programme of the port; management of the property transferred to its possession (hydraulic structures, fairways, etc.); organizing the construction works and construction of communication within the port; participation in the development of infrastructure related to the activities of the port; contracting the companies to provide services in order to improve competitiveness of the port.

The operational management of ship traffic in a port and in port access fairways, as well as control of the safety of ship movements in the port, shall be ensured by harbour master. Functions of HM can be carried out by a port manager or other certified person appointed by a port manager if pilot service, shipping traffic service or other related port service is not founded in the port.

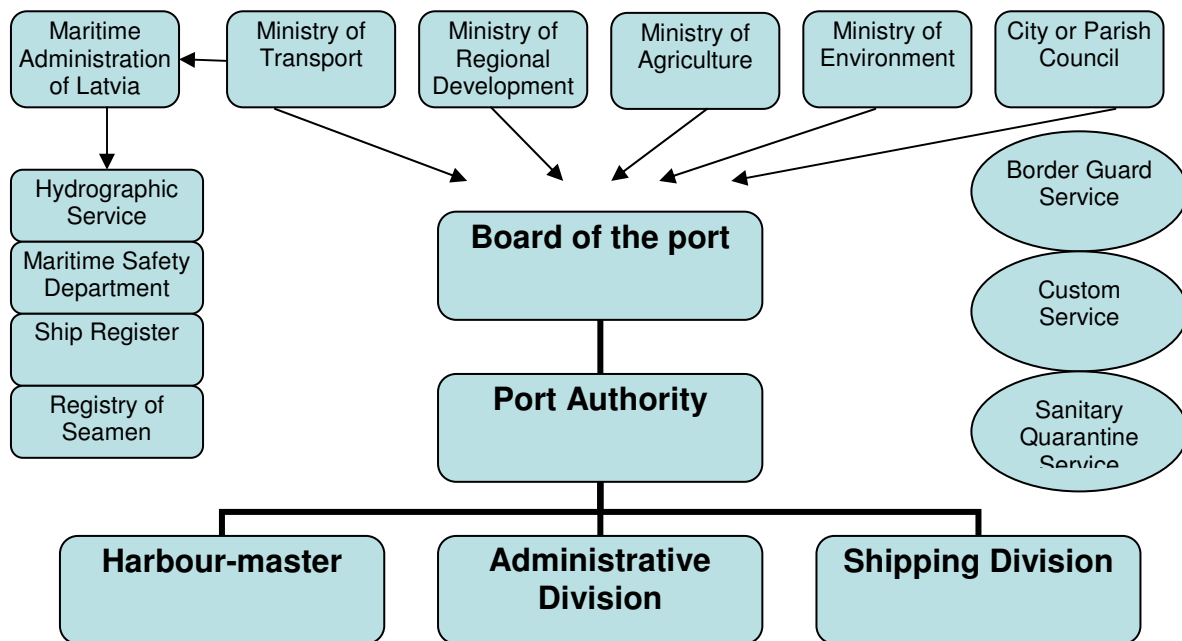


Figure 13.1. Organizational chart of ports of Latvia

### 13.2. Institutional system in Estonia

Port Act of the Republic of Estonia determines that the port authority is a person who possesses a port and organizes the activities of the port in general. The main obligations of the port authority is ensuring safe vessel traffic and order in the port including: maintenance of hydraulic structures and navigational marks, supervision of importation of dangerous goods; compliance of fire and safety requirements; administration of the reconstruction of entrance and water area of the port; administration of the receipt of bilge water, sewage, refuse and other pollutants from ships and provide protection of the area of the port from pollution.

To each port in Estonia a harbour master shall be assigned. The HM is a person in an employment or service relationship with a port authority. The main duty of the HM is to manage safe shipping traffic in one or several ports designated as his or her work area. The qualification requirements for harbour master are established by the Minister of Economic Affairs and Communications.

The technological, operational, navigational and environmental requirements for the provision of port services and the rates of port dues and fees for the receipt of bilge water, sewage, refuse and other pollutants are determined by the port rules. Port rules and amendments have to be approved by the port authority in consultation with the Maritime Administration. The requirements for port rules are approved by the Minister of Economic Affairs and Communications.

Document that certifies a port conformation to the standards established by legislation and conforms that a port is open for safe shipping traffic and the functional activities of a port is a port certificate. The requirements for port certificate are established by the Minister of Economic Affairs and Communications on the bases of the types and extent of services provided in ports. The use of a port for the provision of port services without a port certificate or differently than determined in the port certificate is prohibited.

Ports Act determines that persons performing state supervision have a right of unrestricted access to ships, port constructions, goods and documents subject to supervision. The Maritime Administration, Border Guard Administration, Tax and Customs Board and other

state supervisory agencies have the right to require that a port authority provide prior information on presumed changes in the volume of work of the port.

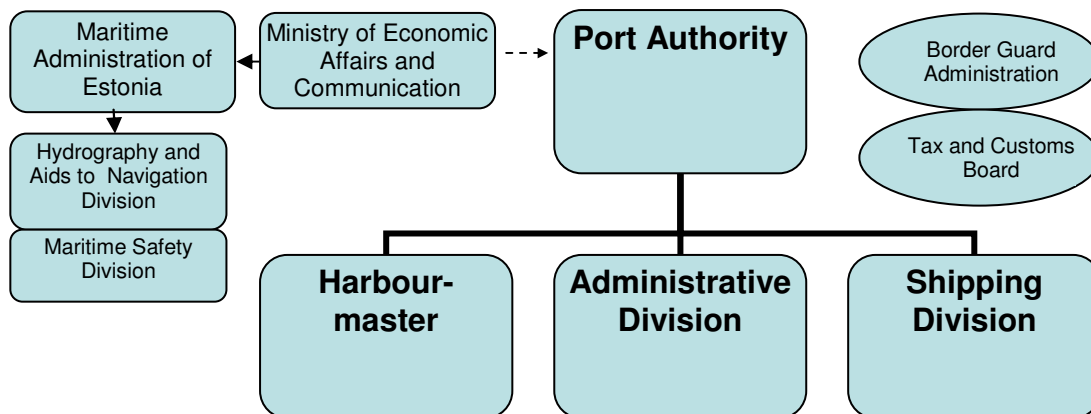


Figure 13.2. Organizational chart of ports of Estonia

### 13.3. Recommendations of administrative and operational systems of North Livonia ports

Management of North Livonia ports will not be identical in Latvia and Estonia. Although in both countries port regulations and many other documentations and procedures should be approved by respective Maritime Administration or Ministry, legislation of Latvia gives more power to the state for influence and control of operations in ports of Latvia, since the board of port includes officials from line ministries, which is not the case in Estonia. Besides, the position of a harbour-master in ports of Latvia is not compulsory (if there are no services of pilot and ship traffic) while to the each port of Estonia a harbour-master must be assigned.

In port of Ainazi administration of the port will be provided by the port authority which will include the board of the port with representatives from Ministries of Transport, Environmental Protection and Regional Development. The position of harbour-master is not obligatory.

Kuivizi port administration will be carried out by Salacgriva Port Authority according to the currently existing structure.

Management of Treimani port will be provided by the port authority represented by the owners of the port. The harbour-master will be employed by the port authority in accordance with qualification requirements established by the Minister of Economic Affairs and Communications.

Management of Jaagupi port also will be provided by the owner of the port or port authority which in this case is the municipality of Haaademeeste. Operational management can be delegated also to the other legal person. The harbour master will be employed by the port authority.

It is recommended to establish a support organization for joint development of yacht harbours in North Livonia. It could be a non-governmental organization, for example, Association of North Livonia Yacht Harbours, which could perform like a joint management organization for the industry within the region. The main objectives of the association could be:

- Representative functions and information exchange between members and wider local and international public (current and potential users, municipalities, governments, exhibitions and trade shows, other non-governmental organizations);
- Joint regional and international marketing activities in order to promote the region to the Baltic Sea sailors at the international level;
- Quality control of services provided by ports;
- Foundation and management of sailors school within the region;
- Organizing the sailors' competitions;
- Co-operation with Latvian and Estonian Association of Small Ports regarding joint development issues of yacht harbour network along the coast of the Baltic Sea.

It is presumed that with time the association could include majority or all ports of Estonia, Latvia and Lithuania, accommodating yachts and recreational boats, because in international level the North Livonia region is too small. In future development of yacht ports should be viewed as development of Yacht Port Network of the Baltic States.

Alternatively, supporting organization could be a part of Forum – organization recommended by Baltic Tourism Research and Training Centre for implementation of Joint Business, Tourism and Marketing Strategy in North Livonia region. In case of Forum (or, much better, North Livonia Development Agency), one unit of the agency could represent interests of regional ports as well as coordinate, promote and develop yacht ports and sailing/yachting industry within the region.

## **14. Recommendations for state and municipalities**

### **14.1. Recommendations for state**

Despite of the fact of steadily growing economic activity in Estonia and Latvia, there are disparities in regional development. In general, the more far from the capital the region is the slower is development of the area. North Livonia is the region located in between the capital cities of Estonia and Latvia. At the same time it is comparatively far from the biggest urban centres and development of North Livonia is not directly related with development trends of capital cities. State development policy in Latvia and Estonia is oriented to balanced regional development, therefore it is important to use local natural and human resources as much as possible to provide job opportunities and favour regional economic activity. One of the main resources which distinguish the North Livonia region is coastline and the sea with historic tradition to use it for local social and economic activities. One of the areas previously not reviewed as significant tool for regional coastal development in Latvia, but already quite strong in the many areas in Estonia and very fast developing in the Baltic Sea region is marina business and recreational boating as part of tourism industry. For successful initiation of this type of economic activity the political support at the state level is needed. Moreover, this business is environmentally friendly and involves utilization of local natural resources and gives opportunity for local entrepreneurship and employment.

Inclusion of yacht harbour development in planning documents of Latvia and Estonia is of very high importance, because these documents are the base strategic guidelines for the EU structural funds utilization for respective national development. Over the planning period 2004 – 2006 the recreational boating and yacht port development was not included neither among tourism products nor port infrastructure development. It is recommended including in state policy planning documents for utilization of the EU structural funds for 2007 – 2013 planning period recreational boating as perspective tourism product and yacht port infrastructure construction as prerequisite for recreational boating tourism industry development.

Besides, state tourism policy should support marketing activities of state recreational boating industry in the international tourism exhibitions, boat shows and public relation campaigns in order to promote the state (the Baltic States) and attract international boaters. Such national and regional marketing activities are too expensive to be carried out by only several municipalities or port authorities.

### **14.2. Recommendations for municipalities**

The first step toward development of port is inclusion of the port territory in territorial development plan and spatial plan. It is recommended to inform the general public about possibilities and necessity of port development (explaining benefits to society in a form of increased economic activity and employment). Involvement of stakeholders will help to clarify problems and opportunities as well as raise the public awareness of port development.

Since budgets of municipalities are limited and development of ports without state support or private public partnership is impossible, the municipalities should look for fund raising opportunities from different sources beginning with proposal to include the small ports development in national development documents in order to receive investment financing from the EU structural funds (ERDF, FIGF, etc.). Other financing instrument, especially appropriate for North Livonia cross-border region, is the EU initiative INTERREG - a programme for balanced territorial development based on idea that national borders should not be barrier for integrity, co-operation and balanced development within the territory of Europe.



Public and private partnership which is a very popular approach in economically developed countries is already well supported by Estonian and Latvian authorities. This co-operation model is both a good opportunity for investment financing and involvement of entrepreneurs in everyday operations and economic activities beneficial for regional development. In order to foster the support from the private sector, it is recommended to avoid setting a high price for concession resources (land, hydraulic structures, wave of real estate tax etc.).

Another recommendation is to consider a possibility to apply for the status of specially supported areas. For example, if a company in Latvia is having business in such territory, it has preferential access to state aid, tax reliefs and other financial benefits.

## List of interviewed persons

No	Name	Position	Institution	Country
1.	Urmas Aava	Mayor	Haademeeste municipality	Estonia
2.	Toomas Abel	Deputy Mayor	Haademeeste municipality	Estonia
3.	Osvalds Bērziņš	Deputy Chairman	Ainazi Fire fighting Depot	Latvia
4.	Janis Budreika	Mersrags Port Authority	Port of Mersrags	Latvia
5.	Maris Gailis	President	Latvian Yachting Union	Latvia
6.	Ivo Istenais	Salacgriva Port Authority	Port of Salacgriva	Latvia
7.	Romet Joearu	Member of the Board	Salacgriva Terminals Ltd.	Estonia
8.	Hermanis Juzefovičs	Director	Hertz Ltd.	Latvia
9.	Eizens Kanskis	Executive Director	Latvian Yachting Union	Latvia
10.	Karlis Kleins	Member of the Board	Bankis Ltd.	Latvia
11.	Vilnis Keris	Harbour engineer, Chairman of the board of Maritime Foundation of Latvia	Latvian Maritime Union, Maritime Foundation of Latvia	Latvia
12.	Sergei Kovalov	Director	Emto Ltd.	Estonia
13.	Janis Krumins	Fisherman		Latvia
14.	Dzintars Lejnieks	Managing Director; manager of Salacgriva Yacht harbour	Chilli Promo	Latvia
15.	Urmas Kase	Head of the Department of Development	Parnu County Government, Department of Development	Estonia
16.	Andris Kociņš	Director	Dio Oil Ltd.	Latvia
17.	Marika Kose		Haademeeste municipality	Estonia
18.	Aigars Krastins	Head of Maritime Department	Ministry of Transport of the Republic of Latvia, Maritime Department	Latvia
19.	Andris Lubiņš	Director	Grandeg Ltd.	Latvia
20.	Merle Looring	Counselor to the Mayor	Haademeeste municipality	Latvia
21.	Girts Mazais	Deputy Director	Latvian Tourism Development Agency	Latvia

No	Name	Position	Institution	Country
22.	Edgars Murds	Captain	Port of Salacgriva	Latvia
23.	Aigars Pusilds	Head of Salacgriva control sector	State environmental service, Marine and Inland Waters Administration (MIWA), Salacgriva control sector	Latvia
24.	Didzis Skudra	Director	Dandijs un Bo Ltd.	Latvia
25.	Gunārs Steinerts	Director of Maritime Safety Department	Maritime Administration of Latvia, Maritime Safety Department	Latvia
26.	Olegs Sumcenko	Chairman of the Board of Fishermen Club "Salackrasti"	Fishermen Club "Salackrasti"	Latvia
27.	Arvo Talts	Fisherman		Estonia
28.	Teet Vainola	Deputy Chairman	Association of Small Ports of Estonia	Estonia
29.	Jaak Valge	Director	Lepanina hotel	Estonia

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4. Maritime Administration of Latvia: [www.jurasadministracija.lv](http://www.jurasadministracija.lv)
5. Yachting Union of Latvia: [www.sailing-latvia.lv](http://www.sailing-latvia.lv)
6. Ministry of Economic Affairs and Communications of the Republic of Estonia: [www.mkm.ee](http://www.mkm.ee)
7. Estonian Maritime Administration: [www.vta.ee](http://www.vta.ee)
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9. Database of Estonian marinas: [www.marinas.nautilus.ee](http://www.marinas.nautilus.ee)
10. Database of Latvian harbours: [www.latviancoast.lv](http://www.latviancoast.lv)
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12. European Boating Association: [www.eba.sida.nu](http://www.eba.sida.nu)
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14. Foundation for Environmental Education: [www.blueflag.org](http://www.blueflag.org)

## Operational analysis of selected ports in the Baltic Sea region

Country	Name of the port	Ownership		Transhipment alternatives													Year 2004		
		Private	Public	Railway access	Road access	Goods berths	Maximum draught	Passenger berths	Maximum draught	Container berths	Maximum draught	Bulk dry berths	Maximum draught	Bulk liquid berths	Maximum draught	Cruise berths	Maximum draught	Cargo turnover, million tons	Passengers turnover, million
Denmark	<b>Copenhagen Malmö Port</b>	x		x	x	10	10	7	8	4	10	6	14	15	14	10	10	14.8	1.7
Denmark	<b>Associated Danish Ports A/S</b>	x		x	x	4	10	1	8	2	14	4	14	4	14	1	12	17.2	
Estonia	<b>Port of Tallinn</b>		x	x	x	14	12	23	10	2	12	8	17	11	18	6	10	37.4	6.74
Finland	<b>Port of Helsinki</b>		x	x	x	13	9	19	9.3	6	12	2	8.9	1	11	3	10	46.2	8.9
Finland	<b>Port of Turku</b>		x	x	x	8	10	5	9	3	12	2	8.5			4	12	4.0	3.9
Germany	<b>Port of Kiel</b>		x	x	x	18	13	8	10	2	13	5	10	3	10	6	10		
Germany	<b>Lübecker Hafen-Gesellschaft mbH</b>		x	x	x	20	9.5	20	9.5	20	9.5	2	9.5			3	9.5	25.4	0.6
Latvia	<b>Freeport of Riga Authority</b>		x	x	x	3	9	8	12	4	10	52	12	19	10	7	12	24.0	
Lithuania	<b>Klaipeda State Seaport Authority</b>		x	x	x	7	8.5	7	8.5	5	8.5	9	13	8	13	6	8.5	20.2	0.16
Poland	<b>Port of Gdansk Authority Co.</b>		x	x	x	3	8.4	2	8.4	1	9.6	5	15	7	15	2	10	23.3	0.17
Sweden	<b>Port of Helsingborg</b>		x	x	x	4	14	4	8.5	3	13	2	14	2	11	3	14	6.9	

Source: Baltic Ports Organization

**Statistical data of the main commercial and passenger ports of the Baltic Sea region, year 2002**

Name of the port	Country	City	Cargo, million of tons	Containers TEU, thousand	Passengers, thousand
Copenhagen Malmö Port	Denmark/ Sweden	Copenhagen/Malmö	13.4	129	1708
Port of Tallinn	Estonia	Tallinn	37.1	113	6738
Lübecker Hafen-Gesellschaft	Germany	Lübeck/Travemünde	24.4	56	639
Hafen-Entwicklungsgesellschaft Rostock	Germany	Rostock	20.5		2005
Port of Helsinki	Finland	Helsinki	11.7	4	8700
Free port of Riga Authority	Latvia	Riga	18.1	127	157
Free port of Ventspils Authority	Latvia	Ventspils	37.9	0,2	8
Klaipėda State Seaport Authority	Lithuania	Klaipėda	20.3	174	156
Port of Gdańsk authority	Poland	Gdańsk	23.3	44	165
Port of Gdynia authority	Poland	Gdynia	10.7	373	490
Szczecin-Świnoujście Seaport authority	Poland	Świnoujście, Szczecin	15.5	28	740
Bulk Cargo - Port Szczecin	Poland	Szczecin	5.6		n.a.
Port Handlowy Świnoujście	Poland	Świnoujście	6.2		
JSC Sea port of St Petersburg	Russia	Saint Petersburg	23.2	457	n.a.
Sea Commercial Port of Kaliningrad	Russia	Kaliningrad	2.7	21	n.a.
Ports of Stockholm	Sweden	Stockholm	4.7	36	9700
Port of Trelleborg	Sweden	Trelleborg	10.3		2000
Port of Helsingborg	Sweden	Helsingborg	7.1		n.a.

Source: [www.wikipedia.com](http://www.wikipedia.com).

### Characteristics of Latvian yacht harbours, berthing fees and calls of yachts 1998 - 2005

Table III.1. Characteristics of Latvian yacht harbours, berthing fees and calls of yachts 1998 - 2005

Harbour / characteristics	Characteristics of harbour and berthing fees				Calls of yachts in Latvian ports 1998 - 2005							
	Depth, m	Guest berths	Permanent berths	Berthing fee EUR/day	1998	1999	2000	2001	2002	2003	2004	2005
Salacgriva port	2.5 - 4	25		10	44	62	92	205	122	103	150	136
Skulte port	1.5 - 5	0		n/a *					3	6	20	25
Andrejosta (Riga)	2 - 5.5	50	40	10 - 25	98	127	134	238	174	243	303	325
Mersrags port	3.5	1		20 - 25						around 50	around 50	around 50
Roja port	3.5	12		7 - 15	83	115	120	192	144	around 200	around 200	around 200
Ventspils port	3.5	25		7 - 20			182	252	223	350	407	478
Pavilosta port	1.5 - 3.5	20		7 - 15	21	63	46	54	52	85	105	132
Liepaja port	3.8 - 6.5	25		0				145	n/a	257	341	371
Engure port	3.5	15		7 - 10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Yacht Club of Latvia in Jurmala	2 - 4.5	10		10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

\* n/a – information not available

Source: information from ports collected by Witteveen+Bos Latvia SIA

Table III.2. Calls of yachts in Salacgriva port by visiting country 1994 – 2005

Country	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	In % 2005
Latvia	22	27	13	22	13	23	45	95	30	10	19	15	11%
Finland	28	18	15	34	19	30	33	62	46	52	84	46	34%
Germany	5	2	10	5	3	5	5	13	14	17	20	27	20%
Sweden	2	1	1	1	2	1	5	8	7	11	14	8	6%
UK	0	2	1	0	3	2	3	1	4	1	3	6	4%
The Netherlands	3	0	0	0	0	1	0	17	4	3	6	12	9%
Estonia	2	0	1	1	1	0	0	4	15	3	2	19	14%
Norway	0	0	1	0	1	0	0	0	0	0	0	0	0%
Switzerland	0	0	0	2	0	0	1	0	0	0	0	0	0%
Denmark	0	0	0	1	0	0	0	3	1	2	0	0	0%
Beliza	0	0	0	0	2	0	0	0	0	0	0	0	0%
Luxemburg	1	0	0	0	0	0	0	0	0	0	0	0	0%
Lithuania	0	0	1	0	0	0	0	0	0	0	0	0	0%
Poland	0	0	1	0	0	0	0	1	0	1	2	0	0%
France	0	0	0	0	0	0	0	1	0	0	0	0	0%
Malta	0	0	0	0	0	0	0	0	0	1	0	0	0%
Canada	0	0	0	0	0	0	0	0	0	2	0	0	0%
Austria	0	0	0	0	0	0	0	0	0	0	0	1	1%
USA	0	0	0	0	0	1	0	0	1	0	0	0	0%
<b>Total visiting yacht calls</b>	<b>63</b>	<b>50</b>	<b>44</b>	<b>66</b>	<b>44</b>	<b>63</b>	<b>92</b>	<b>205</b>	<b>122</b>	<b>103</b>	<b>150</b>	<b>134</b>	<b>100%</b>
<b>Total number of yacht tourists</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>319</b>	<b>456</b>	<b>n/a</b>	

\* n/a – information not available

Source: information from Salacgriva port collected by Witteveen+Bos Latvia SIA



### Characteristics of selected Estonian harbours and calls of yachts 1993 – 2005

Harbour / characteristics	Characteristics of harbour						Calls of yachts									
	Main operation of harbour	Max. length	Max. Draught	Guest berths	Permanent berths	Blue flag	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
<b>Harbours of the Gulf of Riga</b>																
Kihnu	Ferry and fishing harbour	35 m	2.6 m	No designated			68	251	295	358	270	306	343	292	n/a *	172
Manilaid	Ferry and boat harbour	10 m	2.0 m	No designated			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Munalaid	Ferry harbour	20 m	2.0 m	No designated			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Parnu	Guest harbour	16 m	3.0 m	30	60	1994-2005	88	157	174	205	220	265	231	278	308	273
Ruhnu	Harbour	20 m	2.0 m	No designated				11	76	22	153	192	219	270	325	386
Treimani	Fishing harbour	10 m	1.0 m	No designated			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Harbours of Saaremaa</b>																
Harbour	Main operation of harbour	Max. length	Max. Draught	Guest berths	Permanent berths	Blue flag	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
Abruka	Harbour	15 m	2.0 m	No designated			n/a	n/a	n/a	n/a	n/a	40	30	n/a	n/a	n/a
Koiguste	Guest harbour	20 m	2.5 m	20			2	139	91	83	87	139	157	n/a	n/a	n/a
Kuivastu	Ferry and commercial port. Pleasure craft.	12 m	3.0 m	4	4		77	82	25	13	15	-	22	n/a	n/a	n/a
Kuressaare	Guest harbour	30 m	2.5 m	81	15	2004-2005	n/a	n/a	n/a	n/a	20	36	44	218	335	411
Montu	Fishing harbour. Pleasure craft.	30 m	3.4 m	10			n/a	4	2	n/a	n/a	5	n/a	n/a	n/a	n/a
Nasva	Fishing and yacht harbour	15 m	2.0 m	No designated		1995-1999	76	80	83	71	44	24	30	n/a	n/a	n/a

Harbour	Main operation of harbour	Max. length	Max. Draught	Guest berths	Permanent berths	Blue flag	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
Orissaare	Guest harbour	20 m	2.3 m	15	3		55	85	96	112	105	105	124	n/a	n/a	n/a
Roomassare	Guest harbour	30 m	3.0 m	50	20	1998-2005	132	201	227	331	370	430	419	437	325	386
Seanina	Harbour	15 m	1.6 m	No designated			n/a	n/a	15	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Triigi	Terminal for ferries / Berths for pleasure craft.	20 m	3.0 m	10			61	91	127	29	63	109	44	n/a	n/a	n/a
Veere	Fishing harbour. Berths for pleasure craft.	80 m	3.5 m	6			40	43	52	43	36	42	36	n/a	n/a	n/a
Virtsu	Ferry and fishing harbour. Pleasure craft.	14 m	2.2 m	12			115	189	137	184	301	301	234	n/a	n/a	n/a
<b>Selected big yacht harbours of Estonia</b>																
Harbour	Main operation of harbour	Max. length	Max. Draught	Guest berths	Permanent berths	Blue flag	1993	1995	1997	1999	2000	2001	2002	2003	2004	2005
Pirita (Tallinn)	Guest harbour "TOP"	50 m	2.8 m	90	220	1994-1997	1252	1998	3171	3161	2780	2605	2489	2516	2921	2590
Kalev Yacht Club (Tallinn)	Guest harbour KYC	50 m	2.8 m	20	75	1996-2003	176	282	676	613	n/a	n/a	n/a	n/a	n/a	n/a
Haapsalu	Guest Harbour GHM	24 m	2.0 m	70		1995-2000	298	518	657	663	718	719	602	n/a	n/a	643
Vergi	Guest harbour	35 m	3.0 m	20		1998-2000	12	57	283	557	571	602	669	n/a	n/a	n/a

\* n/a – information not available

Source: [www.marinnautilus.ee](http://www.marinnautilus.ee); information from ports collected by Witteveen+Bos Latvia SIA

## Facility matrix of the Latvian yacht harbours by the category of the service

	Liepaja	Pavlosta	Ventspils	Usma	Roja	Mersrags	Engure	Riga	Skulte	Salacgriva	Jurmala	
Electricity	●	●	●	●	●	●	●	●	●	●	●	<b>Services for the crew</b>
Fresh water	●	●	●	●	●	●	●	●	●	●	●	
Toilet facilities	●	●	●	●	●	●	●	●	●	●	●	
Showers	●	●	●	●	●	●	●	●	●	●	●	
Sauna	●	●	●	●	●	●	●	●	●	●	●	
Launderette	●	●	●	●	●	●	●	●	●	●	●	
Public telephones	●	●	●	●	●	●	●	●	●	●	●	
Car parking-lot	●	●	●	●	●	●	●	●	●	●	●	
Fuel	●	●	●	●	●	●	●	●	●	●	●	<b>Services for the boat</b>
Bins/refuse collection	●	●	●	●	●	●	●	●	●	●	●	
Oil/battery disposal	●	●	●	●	●	●	●	●	●	●	●	
Winter docking	●	●	●	●	●	●	●	●	●	●	●	
Stationary crane	●	●	●	●	●	●	●	●	●	●	●	
Slipway	●	●	●	●	●	●	●	●	●	●	●	
Technical assistance	●	●	●	●	●	●	●	●	●	●	●	
Sail maker	●	●	●	●	●	●	●	●	●	●	●	
Yacht washing place	●	●	●	●	●	●	●	●	●	●	●	
Bank	●	●	●	●	●	●	●	●	●	●	●	<b>Provision facilities</b>
Post office	●	●	●	●	●	●	●	●	●	●	●	
Shopping possibilities	●	●	●	●	●	●	●	●	●	●	●	
Bar/restaurant	●	●	●	●	●	●	●	●	●	●	●	
Information point	●	●	●	●	●	●	●	●	●	●	●	<b>Leisure facilities</b>
Rescue service	●	●	●	●	●	●	●	●	●	●	●	
Lifesaving equipment	●	●	●	●	●	●	●	●	●	●	●	
Yacht-club	●	●	●	●	●	●	●	●	●	●	●	
Tourism information centre	●	●	●	●	●	●	●	●	●	●	●	
Bicycle hire	●	●	●	●	●	●	●	●	●	●	●	
Boat/yacht rent	●	●	●	●	●	●	●	●	●	●	●	
Car rent	●	●	●	●	●	●	●	●	●	●	●	
Excursion boat	●	●	●	●	●	●	●	●	●	●	●	
Accommodations (hotels, motels, guest-houses)	●	●	●	●	●	●	●	●	●	●	●	<b>Inland facilities</b>
Camping	●	●	●	●	●	●	●	●	●	●	●	

**Legend:**

- - not available
- - available
- - available in the neighbourhood
- - no information

Source: [www.latviancoast.lv](http://www.latviancoast.lv)



## Reasons for international yachting community to attend harbours of North Livonia (Ainazi, Kuivizi, Jaagupi, Treimani)

In general, the yachts that visit the Baltics are more interested in nature than in urban attractions. So, a marina shall offer the necessary facilities but it must melt into its background and not be a "pain in the eye". A combination of yachts with some small fishing boats (though in separated dedicated locations within the harbour) can make a very attractive marina.

### 1) *What should be a motivation for foreigners to visit NLCR yacht harbours?*

- a) The region must be a nice sailing area;
- b) There must be other destinations within an easy day sailing (approximately 40 miles) – there has to be a chain of marinas along the coast of the Baltic Sea, not only in NLCR;
- c) Safe sea access and berthing should be possible;
- d) Preferably there must be the usual facilities (fuel, water, showers, shop, ship chandler, cafe/restaurant etc);
- e) Pleasant surroundings and environment;
- f) Inland facilities (historical site, nice town, shopping) to visit;
- g) Easy walking or public transport from the marina to the closest villages, towns, urban centres;
- h) Sailing (matches) and other events that are held, will attract visiting yachts;
- i) There must be sufficient promotion of NLCR harbours but also for sailing in the area;
- j) The costs should be reasonable, even yachtsmen with their expensive boats often avoid very expensive marinas;
- k) There could be a chain of co-operating marina's where boats can stay overnight for a discount;
- l) Sailor (similar to all tourists) like to feel that they are welcome;
- m) People must feel they can leave securely the boat for a couple of hours, however the security must not be excessive;
- n) It may be helpful to attract a boat rental company to start operations in NLCR harbours;
- o) There must be sufficient number of yachts in the area that can reach NLCR ports during a holiday sailing. Generally that will be boats with home port in the Baltics, mainly Sweden en Finland.

It is also informative to talk about what will keep the boats away:

- a) Unfriendly customs;
- b) Unfriendly Harbour Master;
- c) Insecure feeling, theft;
- d) Much noise (dancing, cars, etc.) or other nuisance;
- e) Unsafe navigation.

### 2) *What should be a motivation for foreigners to store their yachts during the winter in harbours of NLCR?*

There are Dutch nationals who store their boats already for several years on Saaremaa island, because they are completely taken by the sailing in the area specially the Northern coast of the Baltic sea (Finland). In winter time they let the wharf carry out repairs on their boats, because this is rather cheap compared to Netherlands. Furthermore there are several marina's in Denmark that offer these services to German and Dutch yachts.

In the Mediterranean there are numerous sailors from Holland, England etc. who keep yachts there because of the climatic conditions. In short, during the winter period yachts are often kept on land.

- a) Only yachtsmen who want to sail for 2 or more summers in the region will want to keep their yachts there;
- b) The German Bight is difficult sailing area, so yachtsmen that want to sail a couple of seasons in the Baltics are always considering to leave their yachts there over winter;
- c) Important reason to choose NLCR may be the overall costs (storage, airtickets or other transport);
- d) The quality and the extend of the services offered;
- e) Security;
- f) Possibility of covered storage;
- g) Repair facilities for minor repairs but also for major overhaul of yachts;
- h) Good transport from airport to the marina (generally complementary);
- i) A yacht charter company will keep its boats there all year long.

3) *What should be the conditions for foreigners to keep their yachts all the year in NLCR harbours?*

- a) The most important is security, when boats are left for a week in summer time they are still fully equipped and possible attractive targets for thieves;
- b) Service costs of the boat and the crew;
- c) A yacht charter company operating in the marina;
- d) Promotion of facilities offered by yacht harbours:
  - a good website;
  - advertisements in boat magazines;
  - participation in boat shows (this is expensive so through support of state authorities), for example the German BOAT in Dusseldorf, HISWA in the Netherland, the Southampton boat show, etc;
  - creation of a chain of marinas.

### Results of the interviews with stakeholders of the ports of the municipalities of North Livonia

Table VIII.1. Development matrix of Salacgriva port, based on interviews with Salacgriva port stakeholders

Alternative / Reasons	Commercial port	Yacht harbour	Fishing harbour
Choice of alternative	8	2	2
Good geographic location, access from/to 2 countries	4		
Operating commercial port with constantly increasing turnover	2		
Limited vacant territory as main barrier for port expansion	2		
Long term Estonian investments key factor for new Estonian freights	2		
Yacht harbour is small and undeveloped (lack of services)		2	
Industrial infrastructure of port does not meet yachtsmen need for peaceful rest		2	
Network of harbours would help to promote the region		2	
Unclear ownership of territory along the coast of yacht berths does not motivate private investments		2	
Rich nature resources for tourism and recreation purposes		2	
Tourism development program is prerequisite			3

Number of respondents:

Table VIII.2. Development matrix of Kuivizi port, based on interviews with Kuivizi port stakeholders

Alternative / Reasons	Commercial port	Yacht harbour	Yacht and fishing harbour	Fishing harbour
Choice of alternative	2	17	1	
Good geographic location, access from/to 2 countries	2	7		
Peaceful, not overpopulated, ecological, unpolluted town	3			
Rich nature resources for tourism and recreation purposes	3			
Natural harbour bounded by stone shoals	1	4		
Historic maritime heritage	1			
Good access for yachtsmen		2		
Network of harbours would help to promote the region		4		
Large (39.5 ha) vacant territory for infrastructure development		3		
Local businessmen interested invest in infrastructure	1	3		
Big investments with very long payback time	2	7		
Port will provide new working places and family businesses	2	2	1	
Tourism and entertainment development is prerequisite		9		
High quality services and very good infrastructure are prerequisites		3		
New supportive business should be developed (FEZ, "Las Vegas")			1	

Number of respondents:

**Table VIII.3. Development matrix of Ainazi port, based on interviews with Ainazi port stakeholders**

Alternative / Reasons	Commercial port	Yacht harbour	Yacht and fishing harbour	Fishing harbour
Choice of alternative	2	17	1	
Good geographic location, access from/to 2 countries	2	7		
Peaceful, not overpopulated, ecological, unpolluted town	3			
Rich nature resources for tourism and recreation purposes	3			
Natural harbour bounded by stone shoals	1	4		
Historic maritime heritage	1	1		
Good access for yachtsmen	2			
Network of harbours would help to promote the region	4			
Large (39.5 ha) vacant territory for infrastructure development	3			
Local businessmen interested invest in infrastructure	1	3		
Big investments with very long payback time	2	7		
Port will provide new working places and family businesses	2	2	1	
Tourism and entertainment development is prerequisite	9			
High quality services and very good infrastructure are prerequisites	3			
New supportive business should be developed (FEZ, "Las Vegas")	1			

Number of respondents:

**Table VIII.4. Development matrix of Jaagupi port, based on interviews with Jaagupi port stakeholders**

Alternative / Reasons	Fishing harbour	Yacht harbour	Fishing and yacht harbour
Choice of alternative	2		4
Good geographic location and road access	1		3
Peaceful, not overpopulated, ecological, unpolluted village			1
Rich nature resources for rural tourism purposes			1
Reconstructed 3 – 3.5 m deep harbour will provide access for trawls and yachts			2
Already existing fishing harbour infrastructure (fish processing farm)	2		3
Good access by sea from Ruhnu and Kinnu Islands			1
Local fishermen interested invest in fishing vessels			1
Big investments with very long payback time	2		2
Port will retain existing and provide new working places	2		3
State ownership of port area does not attract private investors	1		2
Tourism development is prerequisite			2

Number of respondents:



**The treatment of Treimani harbour in the strategy of North Livonian yacht  
harbours. Development targets of Treimani harbour. Discussion in Treimani library  
on 22.01.2006. Minutes of the discussion.**

***Treimani***

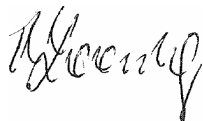
22.01.2006

Among the discussion participants there were the owners of *Treimani* harbour and village people: Heinar Mäll, Anti Vaik, Ranno Lepp, Ago Tähiste, Harri Looing (Chairman of the Häädemeeste Parish Council), Viktor Laarents (member of the Häädemeeste Parish Council), Evi Laarents (Head of the library and the intended Tourist information centre, and Merle Looing, the Development and environment councillor of the Häädemeeste Parish.

During the meeting, opportunities for the development of Treimani harbour and co-operation between the owners of the land plots adjacent to the waters of Treimani harbour, as well as the development of the village of Treimani as a whole, were discussed in connection with the development targets of the region.

Under *Phare* and *Interreg III* projects, tourism will be financed in the trans-border region of Northern Livonia including the village of Treimani. Under the project, Treimani beach and its surroundings are being planned and laid out, Treimani Tourist information centre and tourist routes will be designed and built, and training sessions will be organised for the development of business and for the provision of tourism services. In the course of the project, favourable preconditions for the development of tourism, including sea tourism will be created throughout the trans-border North Livonian region, including the Treimani village. At the same time, Treimani is a holiday region of long-standing traditions, which has retained strong village community while having also active intelligentsia together with school and cultural centre.

Given the above, the owners of Treimani harbour are of an opinion that the harbour should be treated as a promising **harbour for yachts, fishing and recreational boats** (launches) in the strategy of North Livonian yacht harbours. In perspective the owners of the harbour are planning to develop infrastructure, harbour and tourism services in the harbour, which should result in more active business activities, improved employment and increased population. The owners are planning to establish a foundation in order to develop the Treimani harbour.



Recorded by:  
Merle Looing

Appendix: List of participants in the discussion.

## Services and pricing policy of yacht harbours/marinas

Yacht harbours and marinas create development opportunities which can transform underutilized property into valuable resort and mixed use project which can enable local and regional economic growth, development of new working places and promotion of tourism within the region. There are several general types or categories of marinas – commercial, residential, mixed use, public and private club marinas, with different main operational purposes and sources of revenues. Private club marinas and public marinas may not be intended to generate a profit, but are developed to provide a needed service or provide a harbour of a refuge function for boaters. At the same time commercial marinas primarily serve a boating use and provide services for handling, maintaining and accommodating boats mainly generating revenues from new marina memberships, berth rentals, leases and sales and other marina operations (lifting, launching, repairing, etc.). For residential marinas are ones containing land development as a primary source of income with the marina within the project as an amenity or enhancement. The main revenue centres for this category are berthing and housing and also particular commercial marina operational services already mentioned before. One of the most used category is mixed use marinas being a part of development programme of the particular locality and containing combination of all of the features of the commercial and residential marinas and additionally also well developed onshore services infrastructure like restaurants, shops, entertainment, cultural activity centres and other facilities as appropriate.

Within the project the mixed use marina is considered as full service marina which provides the harbour services and enables easy linkage to onshore services for boaters and to the marina services for inland travellers.

Full service marina should contain combination of 5 general groups of services – service for the crew; service for the boat; provision facilities; leisure facilities; and inland facilities (see Table IX.1). The first two groups in different combination and extension can be defined as the basic services which should be provided for the marina and recreational boating activity existence. Presence of the each next group of services can influence interest to call the harbour and prolong stay of the yachtsmen and recreational boaters in a marina and use leisure and entertainment facilities and to explore the nature close to the marina.

**Table IX.1. Groups of services of the full service marina**

<b>1. Service for the crew</b>	
<ul style="list-style-type: none"> <li>• Electricity</li> <li>• Washbasin</li> <li>• Toilet</li> <li>• Launderette</li> <li>• Barbecue</li> <li>• Credit card</li> <li>• Public telephone</li> </ul>	<ul style="list-style-type: none"> <li>• Parking place</li> <li>• Water</li> <li>• Shower</li> <li>• Cooking facilities</li> <li>• Dehumidifier</li> <li>• Playground</li> <li>• Internet /LAN</li> </ul>
<b>2. Service for the boat</b>	
<ul style="list-style-type: none"> <li>• Diesel fuel</li> <li>• Oil disposal</li> <li>• Trailer</li> <li>• Shipyard</li> <li>• Crane</li> <li>• Mast crane</li> </ul>	<ul style="list-style-type: none"> <li>• Gasoline</li> <li>• Toilet disposal</li> <li>• Slipway</li> <li>• Engine workshop</li> <li>• Travel lift</li> <li>• Sail maker</li> </ul>

- Winter storage
- Yacht electric
- Ship supplier
- Waste disposal

### 3. Provision facilities

- Shopping
- Pharmacy
- Bakery
- Kiosk
- Cafeteria
- Internet café
- Postal office
- Bank
- Bread roll service
- Gastronomy
- Spirits
- Other

### 4. Leisure facilities

- Tourist info
- Bike rental
- Bus
- Rent a Car
- Hotel
- Other

### 5. Inland facilities

- Amusement Park
- Canoe/Kajak
- Cinema
- Golf Course
- Leisure Centre
- Sailing
- Stadium
- Zoo
- Camping Area
- Casino
- Diving
- Ice Skating Rink
- Nightlife
- Sail maker
- Surfing
- Other

Source: [www.suportnet.com](http://www.suportnet.com); Witteveen+Bos Latvia SIA

The main services in marinas provided for the boat are storage services: water storage (berthing), dry storage and inside storage. Other services for the boat (fuel, electricity etc.) and the crew (shower, sauna, launderette etc.) are charged separately. However, there are cases when part of services for the boat and the crew are included in price of water storage (e.g., electricity, WC, launderette, shower etc.).

Usually there is also payment required if a watercraft stays in marina for a short period of time (e.g. 4 hours). In this case normally berthing fee is fixed and on average it is around 10 EUR. In most cases for water storage so called “harbour payment” or “price for visitors” is asked, which may include services for quay position, fresh water, electricity (220 V), WC, shower. Payment for water storage depends on the length of a watercraft (expressed in meters or in feet; calculated per meter or range of meters). In some marinas it is also possible to have a private quay.

Other services has to be paid separately: hoisting (lifting ramp for vessels etc.), standing on the building slip, sauna, washing machine, possibility to use towel, safekeeping of vessels in the territory of a harbour, water vehicles, mini-golf etc., parking (car parking and caravan parking).

If caravan parking is provided, it usually includes the following sub-services:

- parking place in a restricted area;
- drinking water;
- use of the WC;
- emptying of sewerage;
- reception of waste;
- possibility of washing the dishes.

**Table IX.2. Types of the charge for selected services (the crew and the boat) in some marinas in Europe\***

<i>Services</i>	<i>Charging type</i>
Water storage (berthing)	Fixed price x period of time Price per m x length of the boat x period of time Price x square meter sheet of the boat
Dry storage	Price per m x length of the boat x period of time Price x taken (used) square meters
Inside storage	Price per m x length of the boat x period of time Price x taken (used) square meters
Electricity	Price x period of time (can be included in the berthing price)
Laundrette (wash)	Fixed price at a time (can be included in the berthing price)
Laundrette (dry)	Fixed price at a time (can be included in the berthing price)
Shower	Fixed price at a time (can be included in the berthing price)
Sauna	Price x period of time (usually hours)
Hoisting (crane)	Fixed price at a time Price x period of time (usually 0,5 hours)
Hoisting (travellift)	Fixed price at a time Price x period of time (usually 0,5 hours)
Jet wash	Fixed price at a time
Masting	Fixed price at a time
Dismasting	Fixed price at a time
Car parking (inside)	Price x period of time
Car parking (outside)	Price x period of time
Trailer parking	Price x period of time
Container	Price x period of time
Bicycle rent	Price x period of time
Marina Club membership	Price x period of time

\* Range of length of watercraft is 6 – 10 m

Source: information from ports collected by Witteveen+Bos Latvia SIA

**Table IX.3. Prices of selected services (the crew and the boat) in some marinas/yacht harbours of Europe (EUR)**

Services	Pirita TOP (Tallinn, Estonia)	Kuussaare (Saaremaa, Estonia)	Malahide Marina (Malahide, Ireland)	Hows Yacht Club (Dublin, Ireland)	Carlingford Marina (Carlingford, Ireland)	Marina Baltica (Lubeck-Travemunde, Germany)	Port Napoleon (Port-Saint-Louis-du-Rhone, France)	Cahersiveen Marina (Cahersiveen, Ireland)	Katajanokka Visitors' Marina (Helsinki, Finland)	Andrejosta Marina (Riga, Latvia)	Ventspils Marina (Ventspils, Latvia)
Water storage											
day	16	13	2.5/m	2.5/m	2.6/m	13	23	10	16	10-35	10
week	n/a**	n/a	12/m	15/m	15.5/m	82	120	8/m	100	n/a	n/a
month	102	38	45/m	65/m	47/m	n/a	421	27/m	n/a	3.5/sq.m	n/a
6 months	508	128	220/m	n/a	150/m	1488	n/a	n/a	n/a	n/a	n/a
year	n/a	n/a	315/m	n/a	206/m	n/a	2549	130/m	n/a	n/a	n/a
10 years (lease)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11 427	n/a	n/a	n/a
Dry storage											
day	n/a	n/a	n/a	n/a	n/a	n/a	17	n/a	n/a	n/a	n/a
week	n/a	n/a	5.8/m	n/a	n/a	n/a	79	n/a	n/a	n/a	n/a
month	2/sq.m.	n/a	n/a	n/a	n/a	n/a	248	n/a	n/a	n/a	n/a
6 months	n/a	n/a	n/a	n/a	n/a	n/a	945	n/a	n/a	n/a	n/a
Year	n/a	n/a	n/a	n/a	206/m	n/a	1369	n/a	n/a	n/a	n/a
Inside storage											
month	2/sq.m.	n/a	n/a	n/a	n/a	n/a	405	n/a	n/a	n/a	1/sq.m
6 months	n/a	n/a	n/a	n/a	n/a	n/a	1620	n/a	n/a	n/a	n/a
year	n/a	n/a	n/a	n/a	n/a	n/a	2906	n/a	n/a	n/a	n/a
6 x 6*** storage	n/a	n/a	n/a	n/a	n/a	n/a	3143	n/a	n/a	n/a	n/a
Electricity	n/a	n/a	5.3/day	4/day	3/day	n/a	3/day	n/a	n/a	n/a	n/a
Laundrette-wash	n/a	4/hour	n/a	2.5/time	4.5/time	n/a	5/time	n/a	2/time	n/a	n/a
Laundrette-dry	n/a	n/a	n/a	2.0/time	2.5/time	n/a	4/time	n/a	2/time	n/a	n/a
Shower	2/pers.	2/pers.	n/a	n/a	1.8/pers.	n/a	n/a	n/a	2/pers.	n/a	n/a
Sauna	29/h	13/hour	n/a	n/a	n/a	n/a	n/a	n/a	40/time	n/a	n/a
Hoisting (crane)	n/a	3/in time	n/a	45/30min.	n/a	103/3t/time	100/30min.	n/a	n/a	n/a	n/a
Lifting/launching	n/a	n/a	15.35/m	n/a	14/m	n/a	101/time	n/a	n/a	n/a	n/a
Jet wash	n/a	n/a	5.1/m	n/a	3.5/m	n/a	66/40min.	3.5/m	n/a	n/a	n/a
Masting/dismasting	n/a	n/a	63.5/h	n/a	55	6/m	90/30min.	n/a	n/a	n/a	n/a
Car parking (ins.)	n/a	n/a	n/a	n/a	n/a	n/a	25/month	n/a	n/a	n/a	n/a
Car parking (outs.)	n/a	n/a	145/year	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trailer parking	n/a	144/month	19/week	n/a	50/month	n/a	n/a	n/a	n/a	n/a	n/a
Container	n/a	n/a	n/a	n/a	n/a	n/a	100/month	n/a	n/a	n/a	n/a
Water vehicles	n/a	3/hour (ad.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marina Club memb.	n/a	n/a	n/a	n/a	123/family	n/a	n/a	n/a	n/a	n/a	n/a

\* Range of length of watercraft is 6 – 10 m. \*\*n/a – information not available. \*\*\* 6x6 – 6 month water storage and 6 months dry storage

Source: information from ports collected by Witteveen+Bos Latvia SIA

**Assumptions used in calculation of the financial return on investment for  
Ainazi, Kuivizi, Jaagupi and Treimani ports**

**Table X.1. Assumptions used in calculation of the financial return on investment for Ainazi port**

	No of persons, months	Unit	No of unit	Unit rate EUR
<b>Assumptions for revenues</b>				
Visitors berths 2009-2013		berth	50	
Visitors berths 2014-2036		berth	100	
Average visitors yacht stay in harbour		day	1	
Visitors berthing fee according to Pirita TOP Marina		berth/10m boat	1	16,00
Average number of visitors per yacht		person	3,8	
Shower		person	1	1,00
Laundrette - washing machine		time	1	2,00
Laundrette - dryer		time	1	2,00
Electricity according to sailing expert		day/visiting yacht	1	3,00
Sauna		person	1	1,00
Fuel		l/visiting yacht	25	0,85
Liquid refuse removal		cub.m/visiting yacht	0,2	2,00
Permanent berths 2009-2013		berth	150	
capacity in 2009		berth	30	
capacity in 2010		berth	50	
capacity in 2011		berth	90	
capacity in 2012		berth	120	
capacity in 2013		berth	150	
Permanent berths 2014-2036		berth	300	
capacity 2014		berth	180	
capacity 2015		berth	220	
capacity 2016		berth	250	
capacity 2017		berth	270	
Permanent berthing fee according to Pirita TOP Marina	8 months	berth/10m boat	1	800,00
Inflation rate (2007-1010) 2,5%				
Inflation rate (2011-2030) 2,0%				
Dry storage places 2009-2012		place	200	
capacity in 2009		place	60	
capacity in 2010		place	80	
capacity in 2011		place	150	
capacity in 2012		place	200	
Dry storage places 2013-2036		place	400	
capacity 2013		place	250	
capacity 2014		place	300	
capacity 2015		place	330	
capacity 2016		place	370	
capacity 2017		place	400	
Dry storage fee according to sailing expert	4 months	place/10m boat	1	360,00
Period of sailing season March - October		month	8	
Period of wintering November - February		month	4	
Inside storage places 2009-2014		place	100	
capacity in 2009		place	30	
capacity in 2010		place	50	
capacity in 2011		place	90	
capacity in 2012		place	100	
Dry storage fee (EUR/10m boat/4months)	4 months	place/10m boat	1	1028,00

Witteveen+Bos

Joint development strategy of Ainazi, Salacgriva and Haademeeste ports version dated 28 February 2006

Lifting of yacht out of water and dismasting by crane		time	1	45,00
Launching of yacht into water by crane		time	1	45,00
Jet wash of yacht		time/10m boat	1	10,00
Total territory 39,5ha		sq. m	395000	
Value of cadastre		sq. m	1	1,42
Assumed that in every 5 years cad. value increases per 20%				
Land rent		sq. m	1	1,00
Land rent 2009-5%		sq. m	19750	
2010-10%		sq. m	39500	
2011-15%		sq. m	59250	
2012-25%		sq. m	98750	
2013-40%		sq. m	158000	
2014-50%		sq. m	197500	
2015-70% (maximum)		sq. m	276500	
Real estate tax 1,5%				
<b>Assumptions for costs</b>				
Fixed Salaries of Administration of Port				
Port Authority, net salary	1 person	month	12	1043,45
Port Captain, net salary	1 person	month	12	834,76
Variable Salaries of Port Attendants 2008-2009				
Worker, net salary	1 person	month	12	521,72
Worker, net salary	1 person	month	8	521,72
Variable Salaries of Port Attendants 2010-2036				
2 Workers, net salary	2 persons	month	12	521,72
2 Workers, net salary	2 persons	month	8	521,72
Employer's social tax				
Administrative costs		month	12	498,01
Security costs		month	12	85,37
Water costs	1 person	cub.m/day	0,15	0,71
Sewerage costs	1 person	cub.m/day	0,15	1,00
Refuse removal				
Dry refuse removal		cub.m		8,53
Liquid refuse removal		cub.m		9,99
Port's infrastructure maintenance costs 2010-2036		year	1	7114,36
Motorcar cost		month	12	711,44
Minibus cost		month	12	1138,30
Marketing costs 2008-2009		year	1	42686,15

**Table X.2. Assumptions used in calculation of the financial return on investment for Kuivizi port**

	No of persons, trawlers, boats, months	Unit	No of units	Unit rate EUR
<b>Assumptions for revenues from fishing services</b>				
Number of incoming trawlers of BANKIS		trawler	2	
Number of other incoming trawlers		trawler	2	
Average GT of trawler	1 trawler	tonnes	27	
Average fishing days per year	1 trawler	day	75	
Total number of calls into and out of the port	1 trawler	calls/year	150	
Tonnage fee of trawler	1 trawler	GT/call	1	0,05
Total average catch of trawler	1 trawler	tonnes/year	400	
Number of incoming fishing boats		boat	24	
Average maximum GT of average boat	1 boat	tonnes	3	
Tonnage fee of fishing boat	1 boat	tonnes	1	0,05
Total average catch of all boats	24 boats	tonnes/year	400	
Number of berthing months March - October	1 trawler	month	8	
Number of berthing months March - October	1 boat	month	8	
Berthing fee for trawlers	1 trawler	GT/month	1	0,10
Berthing fee for fishing boats	1 boat	GT/month	1	0,10
Average expense of fuel for trawlers	1 trawler	year	1	8537,28
Electricity	1 trawler	day	1	3,00
Number of dry storage months November - February	1 trawler	month	4	
Number of dry storage months November - February	1 boat	month	4	
Dry storage fee for trawlers	1 trawler	GT/month	1	0,10
Dry storage fee for fishing boats	1 boat	GT/month	1	0,10
Amount of fish transshipment		tonnes/hour	5	
Cost of crane rent for fish transshipment		hour	1	7,11
<b>Assumptions for revenues from yachting services</b>				
Visitors berths 2008-2012		berth	25	
Visitors berths 2013-2035		berth	50	
Average visitors yacht stay in harbour		day	1	
Visitors berthing fee according to Pirita TOP Marina		berth/10m boat	1	16,00
Average number of visitors per yacht		person	3,8	
Shower		person	1	1,00
Laundrette - washing machine		time	1	2,00
Laundrette - dryer		time	1	2,00
Electricity according to sailing expert		day/visiting yacht	1	3,00
Sauna		person	1	1,00
Fuel		l/visiting yacht	25	0,85
Liquid refuse removal		cub.m/visiting yacht	0,2	2,00
Permanent berths 2008-2012		berth	10	
capacity in 2008		berth	3	
capacity in 2009		berth	5	
capacity in 2010		berth	9	
capacity in 2011		berth	10	
Permanent berths 2013-2035		berth	20	
capacity 2013		berth	13	
capacity 2014		berth	15	
capacity 2015		berth	19	
capacity 2016		berth	20	
Permanent berthing fee according to Pirita TOP Marina	8 months	berth/10m boat	1	800,00
Inflation rate (2007-1010) 2,5%				



Inflation rate (2011-2030) 2,0%				
Period of sailing season March - October		month	8	
Period of wintering November - February		month	4	
<b>Assumptions for revenues from land rent</b>				
Total territory 24,9ha		sq. m	249000	
Value of cadastre		sq. m	1	1,42
Assumed that in every 5 years cad. value increases per 20%				
Land inapplicable for rent (nature reserves, beach, etc.)		sq. m	47000	
Land rented to local fishermen		sq. m	1680	0,07
Land rented to other tenants		sq. m	90320	0,10
Land planned to rent in 2006		sq. m	60000	0,21
Remaining land for rent 2007-2035		sq. m	50000	1,00
2007-10%		sq. m	5000	1,00
2008-20%		sq. m	10000	1,00
2009-30%		sq. m	15000	1,00
2010-40%		sq. m	20000	1,00
2011-50%		sq. m	25000	1,00
2012-70%		sq. m	35000	1,00
2013-90%		sq. m	45000	1,00
2014-100%		sq. m	50000	1,00
Real estate tax 1,5%				
<b>Assumptions for costs</b>				
Fixed Salaries of Administration of Port				
Port Manager net salary	1 person	month	12	834,76
Service of Salacgriva Port Authority	1 person	month	12	626,07
Variable Salaries of Attendants of Port				
Port attendant, net salary, EUR/month x 12 months	1 person	month	12	521,72
Port attendant, net salary, EUR/month x 8 months	1 person	month	8	521,72
Employer's social tax				
Administrative costs		month	12	426,86
Security costs		month	12	85,37
Water costs	1 person	cub.m/day	0,15	0,71
Sewerage costs	1 person	cub.m/day	0,15	1,00
Dry refuse removal		cub.m		8,53
Liquid refuse removal		cub.m		9,99
Port's infrastructure maintenance costs 2009-2035		year	1	7114,36
Motorcar cost		month	12	711,44
Marketing costs 2007		year	1	1422,88
Marketing costs 2008-2012		year	1	2845,76
Marketing costs 2013-2035, 7% from berthing revenues				

**Table X.3. Assumptions used in calculation of the financial return on investment for Jaagupi port**

	No of persons, trawlers, boats, months	Unit	No of units	Unit rate EUR
<b>Assumptions for revenues from fishing services</b>				
Number of incoming trawlers		trawler	3	
Average GT of trawler	1 trawler	tonnes	27	
Average fishing days per year	1 trawler	day	75	
Total number of calls into and out of the port	1 trawler	calls/year	150	
Tonnage fee of trawler	1 trawler	GT/call	1	0,05
Total average catch of trawler	1 trawler	tonnes/year	500	
Number of incoming fishing boats		boat	37	
Average maximum GT of average boat	1 boat	tonnes	3	
Tonnage fee of fishing boat	1 boat	tonnes	1	0,05
Total average catch of all boats	24 boats	tonnes/year	2000	
Number of berthing months March - October	1 trawler	month	8	
Number of berthing months March - October	1 boat	month	8	
Berthing fee for trawlers	1 trawler	GT/month	1	0,10
Berthing fee for fishing boats	1 boat	GT/month	1	0,10
Average expense of fuel for trawlers	1 trawler	year	1	8537,28
Electricity	1 trawler	day	1	3,00
Number of dry storage months November - February	1 trawler	month	4	
Number of dry storage months November - February	1 boat	month	4	
Dry storage fee for trawlers	1 trawler	GT/month	1	0,10
Dry storage fee for fishing boats	1 boat	GT/month	1	0,10
Amount of fish transshipment		tonnes/hour	5	
Cost of crane rent for fish transshipment		hour	1	7,11
<b>Assumptions for revenues from yachting services</b>				
Visitors berths 2009-2013		berth	35	
Visitors berths 2014-2036		berth	70	
Average visitors yacht stay in harbour		day	1	
Visitors berthing fee according to Pirita TOP Marina		berth/10m boat	1	16,00
Average number of visitors per yacht		person	3,8	
Shower		person	1	1,00
Laundrette - washing machine		time	1	2,00
Laundrette - dryer		time	1	2,00
Electricity according to sailing expert		day/visiting yacht	1	3,00
Sauna		person	1	1,00
Fuel		l/visiting yacht	25	0,85
Liquid refuse removal		cub.m/visiting yacht	0,2	2,00
Permanent berths 2009-2013		berth	15	
capacity in 2009		berth	5	
capacity in 2010		berth	8	
capacity in 2011		berth	11	
capacity in 2012		berth	15	
Permanent berths 2014-2036		berth	30	
capacity 2014		berth	20	
capacity 2015		berth	23	
capacity 2016		berth	26	
capacity 2017		berth	29	
capacity 2018		berth	30	
Permanent berthing fee according to Pirita TOP Marina	8 months	berth/10m boat	1	800,00
Inflation rate (2007-1010) 2,5%				
Inflation rate (2011-2030) 2,0%				

Period of sailing season March - October		month	8	
Period of wintering November - February		month	4	
<b>Assumptions for revenues from land rent</b>				
Total territory 7,44ha		sq. m	74000	
Value of cadastre		sq. m	1	0,53
Assumed that in every 5 years cad. value increases per 20%				
Land rent 2009-2036				
2009-10%		sq. m	7400	1,00
2010-20%		sq. m	14800	1,00
2011-30%		sq. m	22200	1,00
2012-40%		sq. m	29600	1,00
2013-50%		sq. m	37000	1,00
2014-70%		sq. m	51800	1,00
Real estate tax 1,5%				
<b>Assumptions for costs</b>				
Fixed Salaries of Administration of Port				
Port Manager net salary	1 person	month	12	834,76
Jaagupi Harbour-master	1 person	month	12	626,07
Variable Salaries of Attendants of Port				
Port attendant, net salary, EUR/month x 12 months	1 person	month	12	521,72
Port attendant, net salary, EUR/month x 8 months	1 person	month	8	521,72
Employer's social tax				
Administrative costs		month	12	426,86
Security costs		month	12	85,37
Water costs	1 person	cub.m/day	0,15	0,71
Sewerage costs	1 person	cub.m/day	0,15	1,00
Dry refuse removal		cub.m		8,53
Liquid refuse removal		cub.m		9,99
Port's infrastructure maintenance costs 2010-2036		year	1	7114,36
Motorcar cost		month	12	711,44
Marketing costs 2007		year	1	1422,88
Marketing costs 2008-2012		year	1	2845,76
Marketing costs 2013-2036, 7% from berthing revenues				

**Table X.4. Assumptions used in calculation of the financial return on investment for Treimani port**

	No of persons, trawlers, boats, months	Unit	No of units	Unit rate EUR
<b>Assumptions for revenues from fishing services</b>				
Average fishing days per year	1 boat	day	75	
Total number of calls into and out of the port	1 boat	calls/year	150	
Number of incoming fishing boats		boat	30	
Average maximum GT of average boat	1 boat	tonnes	3	
Tonnage fee of fishing boat	1 boat	tonnes	1	0,05
Total average catch of all boats	30 boats	tonnes/year	2500	
Number of berthing months March - October	1 boat	month	8	
Berthing fee for fishing boats	1 boat	GT/month	1	0,10
Average expense of fuel for bigger fishing boats	10 boat	year	1	12750,00
Number of dry storage months November - February	1 boat	month	4	
Dry storage fee for fishing boats	1 boat	GT/month	1	0,10
Amount of fish transshipment		tonnes/hour	5	
Cost of crane rent for fish transshipment		hour	1	7,11
<b>Assumptions for revenues from yachting services</b>				
Visitors berths 2009-2013		berth	35	
Visitors berths 2014-2036		berth	70	
Average visitors yacht stay in harbour		day	1	
Visitors berthing fee according to Pirita TOP Marina		berth/10m boat	1	16,00
Average number of visitors per yacht		person	3,8	
Shower		person	1	1,00
Laundrette - washing machine		time	1	2,00
Laundrette - dryer		time	1	2,00
Electricity according to sailing expert		day/visiting yacht	1	3,00
Sauna		person	1	1,00
Fuel		l/visiting yacht	25	0,85
Liquid refuse removal		cub.m/visiting yacht	0,2	2,00
Permanent berths 2009-2013		berth	15	
capacity in 2009		berth	5	
capacity in 2010		berth	8	
capacity in 2011		berth	11	
capacity in 2012		berth	15	
Permanent berths 2014-2036		berth	30	
capacity 2014		berth	20	
capacity 2015		berth	23	
capacity 2016		berth	26	
capacity 2017		berth	29	
capacity 2018		berth	30	
Permanent berthing fee according to Pirita TOP Marina	8 months	berth/10m boat	1	800,00
Inflation rate (2007-1010) 2,5%				
Inflation rate (2011-2030) 2,0%				
Period of sailing season March - October		month	8	
Period of wintering November - February		month	4	
<b>Assumptions for revenues from land rent</b>				
Total territory 7,44ha		sq. m	76000	
Value of cadastre		sq. m	1	0,53

Assumed that in every 5 years cad. value increases per 20%				
Land rent 2009-2036				
2009-10%		sq. m	7600	1,00
2010-20%		sq. m	15200	1,00
2011-30%		sq. m	22800	1,00
2012-40%		sq. m	30400	1,00
2013-50%		sq. m	38000	1,00
2014-70%		sq. m	53200	1,00
Real estate tax 1,5%				
<b>Assumptions for costs</b>				
Fixed Salaries of Administration of Port				
Port Manager net salary	1 person	month	12	834,76
Treimani Harbour-master	1 person	month	12	626,07
Variable Salaries of Attendants of Port				
Port attendant, net salary, EUR/month x 12 months	1 person	month	12	521,72
Port attendant, net salary, EUR/month x 8 months	1 person	month	8	521,72
Employer's social tax				
Administrative costs		month	12	426,86
Security costs		month	12	85,37
Water costs	1 person	cub.m/day	0,15	0,71
Sewerage costs	1 person	cub.m/day	0,15	1,00
Dry refuse removal		cub.m		8,53
Liquid refuse removal		cub.m		9,99
Port's infrastructure maintenance costs 2010-2036		year	1	7114,36
Motorcar cost		month	12	711,44
Marketing costs 2007		year	1	1422,88
Marketing costs 2008-2012		year	1	2845,76
Marketing costs 2013-2036, 7% from berthing revenues				











**Table XI.4. Calculation of the financial rate of return on investment for Treimani port**

Calculation of the financial rate of return (Treimani port) - EUR, current prices															
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Port infrastructure maintenance costs	0	0	0	0	7114	7292	7475	7661	7853	8049	8251	8457	8668	8885	9107
Electrical energy	0	0	89	191	383	510	638	714	800	896	1003	1103	1236	1384	1453
Water	0	0	209	195	195	195	195	195	195	195	195	195	195	195	195
Severage	0	0	293	273	273	273	273	273	273	273	273	273	273	273	273
Fuel	0	0	11472	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838
Refuse removal	0	0	107	37	37	37	37	37	37	37	37	37	37	37	37
Marketing costs, YACHTING	0	1423	2846	2846	2846	2846	2846	1449	1666	1999	2207	2360	2554	2771	2893
<b>Variable costs</b>	<b>0</b>	<b>1423</b>	<b>15016</b>	<b>14379</b>	<b>21685</b>	<b>21990</b>	<b>22300</b>	<b>21166</b>	<b>21660</b>	<b>22286</b>	<b>22803</b>	<b>23262</b>	<b>23800</b>	<b>24382</b>	<b>24795</b>
Salaries of port administration	0	0	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965
Employer's social tax	0	0	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737
Real estate tax	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
Administrative costs	1000	2000	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122
Security costs	0	0	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024
Vehicle costs	0	0	8537	8751	8969	9194	9424	9659	9901	10148	10402	10662	10928	11202	11482
<b>Fixed costs</b>	<b>1058</b>	<b>2058</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>
<b>Total operating costs</b>	<b>1058</b>	<b>3481</b>	<b>55922</b>	<b>55285</b>	<b>62591</b>	<b>62896</b>	<b>63206</b>	<b>62073</b>	<b>62567</b>	<b>63192</b>	<b>63709</b>	<b>64168</b>	<b>64706</b>	<b>65288</b>	<b>65701</b>
Tonnage fee, FISHING	0	0	675	675	675	675	675	675	675	675	675	675	675	675	675
Berths (trawlers and boats), FISHING	0	0	72	72	72	72	72	72	72	72	72	72	72	72	72
Other berthing related services, FISHING	0	0	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750
Visitor and permanent berths YACHTING	0	0	2041	3623	6811	8044	8687	11168	13121	16597	18138	18985	19991	21102	21921
Other yacht berthing related services, YACHTING	0	0	1192	2553	5106	6809	8511	9532	10676	11957	13392	14731	16499	18479	19403
<b>Berthing services</b>	<b>0</b>	<b>0</b>	<b>16730</b>	<b>19674</b>	<b>25415</b>	<b>28350</b>	<b>30695</b>	<b>34197</b>	<b>37293</b>	<b>42051</b>	<b>45027</b>	<b>47213</b>	<b>49987</b>	<b>53077</b>	<b>54821</b>
Storage fee	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36
<b>Storage services</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>
Revenues from ship transshipment services	0	0	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555
Revenues from lease of land	0	0	7600	15200	22800	30400	38000	53200	53200	53200	53200	53200	53200	53200	53200
<b>Sales</b>	<b>0</b>	<b>0</b>	<b>24366</b>	<b>34910</b>	<b>48251</b>	<b>58786</b>	<b>68731</b>	<b>87433</b>	<b>90529</b>	<b>95287</b>	<b>98263</b>	<b>100449</b>	<b>103223</b>	<b>106313</b>	<b>108057</b>
<b>Net operating revenue</b>	<b>-1058</b>	<b>-3481</b>	<b>-31557</b>	<b>-20376</b>	<b>-14340</b>	<b>-4110</b>	<b>5525</b>	<b>25361</b>	<b>27963</b>	<b>32096</b>	<b>34554</b>	<b>36280</b>	<b>38517</b>	<b>41025</b>	<b>42355</b>
Repayment of the principal and interest (4%)	-4277	-48117	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566
Equity (15% of total investment costs)	-16039	-164401	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net cash flow</b>	<b>-21374</b>	<b>-215999</b>	<b>-101122</b>	<b>-89941</b>	<b>-83906</b>	<b>-73676</b>	<b>-64041</b>	<b>-44205</b>	<b>-41603</b>	<b>-37470</b>	<b>-35011</b>	<b>-33285</b>	<b>-31049</b>	<b>-28540</b>	<b>-27210</b>
<b>Financial rate of return (FRR)</b>										<b>-20%</b>					
<b>Financial net present value (FNPV) (discount rate = 5%)</b>										<b>-782 658</b>					

	Years														
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
9335	9568	9807	10052	10304	10561	10825	11096	11373	11658	11949	12248	12554	12868	13190	
1526	1602	1682	1767	1855	1948	2045	2147	2255	2322	2392	2464	2538	2614	2692	
195	195	195	195	195	195	195	195	195	195	195	195	195	195	195	
273	273	273	273	273	273	273	273	273	273	273	273	273	273	273	
10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	10838	
37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	
3021	3156	3298	3447	3604	3769	3943	4126	4319	4463	4612	4767	4928	5095	5268	
<b>25224</b>	<b>25668</b>	<b>26129</b>	<b>26608</b>	<b>27104</b>	<b>27620</b>	<b>28155</b>	<b>28711</b>	<b>29289</b>	<b>29785</b>	<b>30295</b>	<b>30821</b>	<b>31362</b>	<b>31919</b>	<b>32492</b>	
27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	27965	
6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	6737	
58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	
5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	5122	
1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	
11789	12063	12385	12674	12990	13315	13648	13989	14339	14698	15065	15442	15828	16223	16629	
<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	<b>40906</b>	
<b>66130</b>	<b>66574</b>	<b>67035</b>	<b>67514</b>	<b>68010</b>	<b>68526</b>	<b>69061</b>	<b>69617</b>	<b>70195</b>	<b>70691</b>	<b>71202</b>	<b>71727</b>	<b>72268</b>	<b>72825</b>	<b>73398</b>	
675	675	675	675	675	675	675	675	675	675	675	675	675	675	675	
72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	
12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	12750	
22783	23691	24647	25655	26718	27840	29025	30276	31599	32754	33958	35214	36525	37892	39318	
20373	21391	22461	23584	24763	26001	27301	28666	30100	31003	31933	32891	33878	34894	35941	
<b>56653</b>	<b>58579</b>	<b>60605</b>	<b>62736</b>	<b>64979</b>	<b>67339</b>	<b>69823</b>	<b>72439</b>	<b>75195</b>	<b>77254</b>	<b>79388</b>	<b>81602</b>	<b>83899</b>	<b>86283</b>	<b>88756</b>	
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	
<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	
3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	3555	
53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	53200	
109889	111815	113841	115972	118215	120575	123059	125675	128431	130490	132624	134838	137135	139519	141992	
43759	45241	46806	48458	50204	52048	53998	56058	58236	59798	61422	63111	64867	66694	68594	
-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	-69566	
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
<b>-25806</b>	<b>-24325</b>	<b>-22760</b>	<b>-21107</b>	<b>-19362</b>	<b>-17517</b>	<b>-15568</b>	<b>-13508</b>	<b>-11330</b>	<b>-9767</b>	<b>-8143</b>	<b>-6455</b>	<b>-4699</b>	<b>-2872</b>	<b>-972</b>	