European Commission

STUDY TO SUPPORT THE DEVELOPMENT OF SEA BASIN COOPERATION

CONTRACT NUMBER

MARE/2012/07 - REF. NO 1

ANNEX 1.3:

COUNTRY FICHE ESTONIA

DECEMBER 2013

EUNETMAR
European Networking Group for Integrated Maritime Policy

COGEA
Consulenti per la Gestione Aziendale

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Poseidon Aquatic Resource Management Ltd

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0. General overview

Morphological structure of the coastline

- Estonia has a coastline of 3.197 km, which represents 2,3% of the total coastline of the EU-22 coastal Member States. Of these, 1.242 km are on the mainland and 2.540 km are divided among the islands.[1] The country's coastal zone (within a range of 10 km from the coast) covers 9.362 km^2, which amounts to 2,2% of the corresponding EU-22 Member States coastal area.
- The coastline has numerous peninsulas and bays as well as 1.500 islands[2].

Population and related social condition for maritime areas

- As of 2012 995.500 inhabitants live in the country's coastal regions. This amounts to 74,3% of the country's total population.
- In 2010 the coastal regions provided jobs to 421,3 thousand persons, representing a share of 76,5% of the total employment in Estonia and 0,20% of the labour force employed in all the EU-22 coastal Member States.
- In 2012 total unemployment in the population aged 20-64 years in Estonia's coastal NUTS-2 regions (which is the whole country) was about 67,7 thousand people representing 0,30% of the unemployed persons in all the EU-22 coastal Member States.

Economic role of maritime areas over the national total

- In 2010 the Gross Domestic Product (GDP) per capita in Estonia's coastal regions was about EUR 11.850 or 110,9% of the national GDP per capita, which was about EUR 10.700.
- Estonia's coastal regions were responsible for EUR 10,30 billion of gross value added (GVA), which is 82,5 % of the nation's EUR 12,48 billion GVA in 2010.

GVA – Details by NACE activities (2010)

Sector	GVA of the coastal regions (billion EUR)	Share in the national GVA for the sector
Agriculture, Aquaculture and Fishing (A)	0,25	60,86
Manufacturing (C)	1,58	79,52
Construction (F)	0,59	80,37
Wholesale and retail trade; transport; accommodation and food service activities; information and communication (G-J)	2,87	86,71

Employment – Details by NACE activities (2010)

Sector	Employment of the coastal regions (thousand)	Share in the national employment for the sector
Agriculture, Aquaculture and Fishing (A)	12,8	55,90
Manufacturing (C)	83,0	78,45
Construction (F)	25,8	69,73
Wholesale and retail trade; transport; accommodation and food service activities; information and communication (G-J)	128,3	79,37

[1] Geology and Mineral Resources in Estonia; http://sarv.gi.ee/geology/text.html
[2] http://www.visitestonia.com/en/holiday-destinations/the-islands/1500-other-islands

1. Marine and maritime economic activities (MEAs)

Table 1 - Overview of relevant maritime economic activities in Estonia at NUTS-0 level

Maritime economic activity		GVA (EUR, billion)	Employment (*1000)	Number of enterprises	Further indicators	Source & reference year
0. Other sectors						
0.1	Shipbuilding (excl. leisure boats) and ship repair	0,41	4,92	173		Eurostat, EMTAK (2010)
0.2	Water projects	0,81	0,18	49		Eurostat (2010)
1. Maritime transport						
1.1	Deep-sea shipping	0,12	0,20	57	35% of goods transported by DSS in 2010	Eurostat, EMTAK, (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	0,22	0,40	107	65% of goods transported by SSS in 2010	Eurostat, EMTAK, (2010)
1.3	Passenger ferry services	0,03	1,32	114		Eurostat, EMTAK, (2010)
1.4	Inland waterway transport	0	0	0		Eurostat (2010)
2. Food, nutrition, health and ecosystem services						
2.1	Fish for human consumption	0,06	4,66	926		Eurostat (2010), STEFC annual economic report on the EU fishing fleet (2010, 2011, 2012)
2.2	Fish for animal feeding	0,0009	0,06	2		Eurostat (2010)
2.3	Marine aquaculture	0	0	0		Eurostat, Marine aquaculture fish_aq2a (2010)
2.4	Blue biotechnology	0	0	0		
2.5	Agriculture on saline soils	0	0	0		The Saline and Sodic Soils Map. Joint Research Centre
3. Energy and raw materials						
3.1	Offshore oil and gas	0	0	0		Eurostat (2010)
3.2	Offshore wind	0	0	0		European Wind Energy Association (EWEA)(2013)
3.3	Ocean renewable energy	0	0	0		
3.4	Carbon capture and storage	0	0	0		
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0		http://www.uepg.eu/statistics/estimates-of-production-data (2010)
3.6	Marine minerals mining	0	0	0		EMTAK (2010)
3.7	Securing fresh water supply (desalination)	0	0	0		
4. Leisure, working and living						
4.1	Coastal tourism	0,05	4,30	474		Eurostat (2010)
4.2	Yachting and marinas	0,08	0,30	39		Eurostat (2010)
4.3	Cruise tourism	0,004	0,12	14		Eurostat (2010)
5. Coastal protection						
5.1 – 5.2	Coastal protection	0	0	N/A	Annual expenditure to protect against coastal flooding and erosion: EUR 0,099 million	Study "The economics of climate change adaptation in EU coastal areas" (2009); Budget estimates based on the Ministry of Environment data (2009)
5.3	Protection of habitats	0,005	0,05	N/A		Eurostat (2011) Maritime share is calculated as % of

						the regional coastal protected area on total regional protected area – 20,6% Employees: 1 for 100.000 EUR of GVA.
6. Maritime monitoring and surveillance						
6.1	Traceability and security of goods supply chains	0,01	0.12	N/A	Public expenditure of the Maritime Administration in 2010: EUR 30,89 million, employees: 247. Estonian Tax and Customs Board: public expenditure in 2010: EUR 38,28 million, employees: 1.670	Estonian Public Service (2010) Riigiteataja (2010) The Police and Border Guard Board and Estonian Tax and Custom Board public expenditure and employment data for 6.1 and 6.2 is calculated as 1/3 for the MEA 6.1 and 2/3 for the MEA 6.2. The share of the Maritime Administration turnover and employment for MEA 6.1. (GVA - EUR 0,003 billion, employment - 0,03) is taken as 1/10 of the total figures. Maritime share is calculated as % of the regional coastal protected area on total regional protected area – 20,6%.
6.2	Prevent and protect against illegal movement of people and goods	0,02	0,20	N/A	Police and Border Guard Board public expenditure in 2010: EUR 132,08 million, employees-1.471	Estonian Public Service (2010) Riigiteataja (2010) Maritime share is calculated as % of the regional coastal protected area on total regional protected area – 20,6%.
6.3	Environmental monitoring	0,04	0,21	N/A	Ministry of Environment: total public expenditure in 2010: EUR 194,65 million, employees-1.015	Estonian Public Service (2010) Riigiteataja (2010) Maritime share is calculated as % of the regional coastal protected area on total regional protected area – 20,6%

Table 2 Overview of relevant maritime economic activities in Estonia at NUTS-0 level

Maritime economic Activity		Overview	Socioeconomic indicators	Source & reference year
0. Other sectors				
0.1	Shipbuilding (excl. leisure boats) and ship repair	Baltic Ship Repair Company (BLRT) is active in shipbuilding, ship-repair, production of large-scale metal constructions, metal processing, machine building, and medical and technical services. Baltic Workboats is oriented towards small crafts and employing skilled people on the islands of Saaremaa and Hiiumaa. Saaremaa Small Craft Cluster has found a niche on shipbuilding market.	BLRT total turnover of EUR 347,3 million (2010). Employees are highly skilled workers. In 2011, the Small Craft Cluster was responsible for 80% of the sector's turnover, 85% of sector's exports and 92% of the sector's net profit in Estonia.	BLRT (2010) Saaremaa Small Craft Cluster (2011)
0.2	Water projects	Insenerehitus Ltd and several smaller companies are dealing with project work, dredging fairways, repairing water buildings, and diving activities. The MEA employs skilled people to maintain the ports, ships, water constructions, fairways and building new ones.	Employees are highly educated constructors, engineers, specialists like divers and managers who are building and maintaining water constructions and fairways.	Insenerehitus Ltd
1. Maritime transport				
1.1	Deep-sea shipping	The Tallinna Sadam AS (Port of Tallinn) is the largest company, consisting of Old City Harbour (mainly passenger transportation), Muuga Harbour (predominantly freight transportation), Paldiski South Harbour, Paljassaare Harbour, Saaremaa Harbour and Old City Marina Harbour (which is part of Old City Harbour).	Although since 2006 there has been an annual increase in gross weight transported to/from Estonian ports, in 2011 the sector was negatively influenced by the financial and economic crisis and total gross weight in the deep-sea shipping segment dropped by 8% in comparison with 2010. Muuga Harbour total turnover was 36,7 million tons, which is on the list of top 20 ports in EU. Second largest company in the sector is Sillamäe Sadam AS, whose turnover was EUR 14 million in 2011.	Eurostat mar_sg_am_cw (2011) Estonian Statistical Office (2010) Port of Tallinn (2011)
1.2	Short-sea shipping (incl. Ro-Ro)	Port of Tallinn is in state ownership. On freight transportation, the three largest companies are AS Baltic Scandinavian Lines with a turnover of EUR 13,7 million in 2011,	In 2010, containers freight was 152.000 TEU. In 2011, Estonia reported growth rates of more than 20% in the short sea shipping of	Estonian Statistical Office (2010) Eurostat (2010) Statistics

		Tschudi Lines Baltic Sea AS with EUR 13,7 million and Tschudi Lines Nordic Sea AS with EUR 9,1 million turnover.	TEUs compared with 2010.	explained-Maritime ports freight and passenger statistics (March 2013)
1.3	Passenger ferry services	Ferry transport between mainland and the islands is government subsidised. Saarte Liinid AS operates in this segment. Linking islands habitants to the mainland is very important for Estonia.	Government subsidies: EUR 11,7 million in 2010. Number of passengers between mainland and islands: 1,8 million, cars 700.000 in 2010.	Estonian Statistical Office (2010)
1.4	Inland waterway transport	Not relevant for Estonia		Eurostat (2010)
2. Food, nutrition, health and ecosystem services				
2.1	Fish for human consumption	The fishing sector plays historically important role in the Estonian economy 48 trawlers are catching fish in the Baltic Sea. 52 fish processing companies operate in the sector.	Share of export 75,2% which shows that the MEA is export-oriented sector. Catches constitutes 68.300 tons The share of fishing/processing is 52:48 (based on the employment data) and 22:78 (based on GVA).	Estonian Statistical Office (2010) Prodcom (2010) STEFC (2010)
2.2	Fish for animal feeding	Negligible amount (about 3%) of fish sold production volumes are intended for animal feeding, mainly fish waste from the fish processing is used for these purposes.	MEA remains almost constant over the period of 2008-2010.	Estonian Statistical Office (2010) Prodcom (2010)
2.3	Marine aquaculture	Not relevant for Estonia		Eurostat, Marine aquaculture fish_aq2a (2010)
2.4	Blue biotechnology	Not relevant for Estonia		
2.5	Agriculture on saline soils	Not relevant for Estonia		The Saline and Sodic Soils Map, Joint Research Centre
3. Energy and raw materials				
3.1	Offshore oil and gas	Not relevant for Estonia		Eurostat (2010)
3.2	Offshore wind	There are good future development possibilities for offshore wind parks. Land wind power is actively used already. 3 companies are interested in offshore wind farm development but this is not their main field of activity.		Estonian Statistical Office (2010) European Wind Energy Association
3.3	Ocean renewable energy	Not relevant for Estonia		
3.4	Carbon capture and storage	Not relevant for Estonia		
3.5	Aggregates mining (sand, gravel, etc.)	Not relevant for Estonia		European Aggregates Association (2010)
3.6	Marine minerals mining	Not relevant for Estonia		Estonian Statistical Office (2010)
3.7	Securing fresh water supply (desalination)	It is not relevant for Estonia because the groundwater resources can guarantee a sufficient supply of good quality domestic water in all regions of the country.		
4. Leisure, working and living				
4.1	Coastal tourism	Several sandy beaches and bird watching areas, SPAs, sanatoriums, hotels, etc. are present in the coastal areas.	Tourist houses, camping and hotels in the coastal side of islands and the mainland are important for employment of local people. The number passengers in Estonian ports is increasing rapidly, helping to develop the coastal tourism sector.	Experts knowledge Eurostat (2010, 2011)
4.2	Yachting and marinas	There are 130 registered marinas in Estonia, while there are over 300 counted marinas.	This activity has been growing since Estonia gained its independence from the Soviet Union. This maritime activity is closely related to (small) shipbuilding and repair services.	Estonian Statistical Office (2010)
4.3	Cruise tourism	About 300 cruise ships visit Estonia annually and this number is increasing constantly.	In 2010, there were about 400.000 cruise visitors. The income from tourism is important for Estonian	Estonian Statistical Office (2010)

			economy.	
5. Coastal protection				
5.1 - 5.2	Coastal protection	Coastal protection prevents the loss of life and assets in the area. The flooding and erosion problem is more substantial in the western part of Estonia, in regions with a maritime climate. The coastal areas of south-west Estonia are characterised by many flat low-lying bays, which are naturally vulnerable to flooding. In Estonia, these areas are not protected by means of coastal defences as erosion and flooding are viewed as natural events. The Baltic Sea level has been rising over many last decades, with considerable impact on freshwater (e.g., via salt water intrusion into groundwater).		Ministry of Environment Z. W. Kundzewicz (2011) "The economics of climate change adaptation in EU coastal areas" (2009)
5.3	Protection of habitats	In Estonia there are 490 Natura 2000 sites. Of Estonia's seashore, 4/5 is protected, 75% with low protection and 25% under strict protection. A growing threat to biodiversity is the threat posed by alien invasive species.	Protected NATURA 2000 area consists of 14.590 km^2 (6.585 km^2 at sea and 7.177 km^2 on land) – 2010 data.	Eurostat (2011) Ministry of Environment Estonian Environment Information Centre (2011)
6. Maritime monitoring and surveillance				
6.1	Traceability and security of goods supply chains	This is a public function carried out by the Maritime Administration, Estonian Tax and Customs Board and the Police and Border Guard Board within the scope of their responsibility areas.		Maritime Administration Tax and Customs Board Police and Border Guard Board
6.2	Prevent and protect against illegal movement of people and goods	This is the public function carried out by the Police and Border Guard Board.		Police and Border Guard Board
6.3	Environmental monitoring	This is a public function carried out by the Ministry of Environment.		Ministry of Environment

2. List of the 7 largest, fastest growing and most promising marine and maritime economic activities

2.1 Ranking order of the 7 largest marine and maritime economic activities

The seven largest MEAs, listed in Table 3, were chosen based on a score calculated on the basis of the GVA and the number of persons employed by the sector, using 2010 data (for all MEA scores see Annex Estonia).

Table 3 - Ranking order of the 7 largest maritime economic activities in Estonia at NUTS-0 level

Rank	Maritime economic activity	GVA (billion EUR)	Employment (*1000)	Score
1	Shipbuilding (excl. leisure boats) and ship repair	0,41	4,92	4,51
2	Water projects	0,81	0,18	4,14
3	Fish for human consumption	0,06	4,66	2,61
4	Coastal tourism	0,05	4,30	2,40
5	Short-sea shipping (incl. Ro-Ro)	0,22	0,40	1,30
6	Passenger ferry services	0,03	1,32	0,81
7	Deep-sea shipping	0,12	0,20	0,70

2.2 Ranking order of the 7 fastest growing marine and maritime economic activities over 3 past years

The seven fastest growing MEAs, listed in Table 4, were chosen on the basis of scores calculated using the compound annual growth rate for GVA and number of persons employed over the period 2008-2010 (for all MEA scores see Annex Estonia).

Table 4 – Ranking order of the 7 fastest growing maritime economic activities in Estonia at NUTS-0 level

Rank	Maritime economic activity	GVA (CAGR)	Employment (CAGR)	Score
1	Deep-sea shipping	8,06	10,37	9,21
2	Short-sea shipping (incl. Ro-Ro)	-3,14	-1,09	-2,12
3	Fish for human consumption	1,34	-8,13	-3,39
4	Yachting and marinas	12,75	-20,61	-3,93
5	Shipbuilding (excl. leisure boats) and ship repair	-10,03	-1,64	-5,84
6	Fish for animal feeding	-2,76	-13,06	-7,91
7	Cruise tourism	-13,96	-6,16	-10,06

The economic crises in the EU had a significant impact on the maritime sector in the period 2008-2010. Table 4 compares the growth in 2008 to 2010 and it shows a negative tendencies. If we were to compare 2010 data with 2011 data we see a recovery in almost all MEAs and a stabilisation in the maritime economy.

2.3 Ranking order of the marine and maritime economic activities with most future potential

The six MEAs with most future potential, listed in Table 5, are based on scores assigned to each MEA by expert views for the six following indicators: innovativeness, competitiveness, employment, policy relevance, spill-over effects and sustainability (for all MEA scores see Annex Estonia).

Table 5 - Ranking order of the maritime economic activities with most future potential in Estonia at NUTS-0 level

Rank	Maritime economic activity	Score
1-6	Short-sea shipping (incl. Ro-Ro)	++
1-6	Deep-sea shipping	++
1-6	Yachting and marinas	++
1-6	Water projects	++
1-6	Shipbuilding (excl. leisure boats) and ship repair	++
1-6	Fish for human consumption	++

3. Growth scenarios for 6 of the most relevant and promising marine and maritime economic activities

Table 6 - Sets of top-7 maritime economic activity ranking in order of size/growth/scores

Top-7 current size	Top-7 recent growth	Top most future potential
Shipbuilding (excl. leisure boats) and ship repair	Deep-sea shipping	Short-sea shipping (incl. Ro-Ro)
Water projects	Short-sea shipping (incl. Ro-Ro)	Deep-sea shipping
Fish for human consumption	Fish for human consumption	Yachting and marinas
Coastal tourism	Yachting and marinas	Water projects
Short-sea shipping (incl. Ro-Ro)	Shipbuilding (excl. leisure boats) and ship repair	Shipbuilding (excl. leisure boats) and ship repair
Passenger ferry services	Catching fish for animal feeding	Fish for human consumption
Deep-sea shipping	Cruise tourism	

Table 7 – Six most relevant and promising marine and maritime economic activities[3]

6 most relevant and promising maritime economic activities
Short-sea shipping (incl. Ro-Ro)
Deep-sea shipping
Yachting and marinas
Water projects
Shipbuilding (excl. leisure boats) and ship repair
Fish for human consumption

Short-sea shipping (incl. Ro-Ro) is one of the most relevant and promising maritime economic activities in Estonia because there is large potential in North-South/South-North shipments, related to Finnish markets, and East-West/West-East shipments, related to Russian markets. Short-sea shipping is one of the largest and one of the fastest growing maritime economic activities in Estonia. As the EU economic situation is improving, the cargo turnover will increase and activity in the whole logistic transport chain will increase. This means that more trained people will need employment. So the economic sustainability prognosis of this MEA is that it will increase in the future, under the assumption that the goods exchange inside the EU, including intra-industrial trade and exchange between EU and Russia will increase. There is no basis for presumptions that the competitiveness of maritime transport will suffer a (relevant) decline compared to other types of transport, because environmental restrictions will also become tougher also for other types of transportation in the course of time. It is presumed that passenger transport (especially between Helsinki and Tallinn) will increase and a large share of it will be done with the same vessels as the transport of goods. This will decrease the impacts to the short sea shipping industry caused by fluctuations of the business conjuncture in goods exchange. At the same time the most efficient green transport corridors will be chosen to ensure sustainability development and market position.

Deep-sea shipping is one of the most relevant and promising maritime economic activities in Estonia as it is mainly related to transit goods, which constitute a large part of the turnover of Estonian ports. Its development is dependent on oil and oil product demand and Russian policies. On the other hand, the East-Asia and China directions are very promising in growing economic scenarios. The development of this MEA is influenced by the perspective that large cross-continental shipping lines will begin to visit Estonian deep-water ports. As to its environmental sustainability, there are higher risks compared to the previous MEA. The competition for cross-continental transportation will probably be very tight (incl. transport corridors outside the Baltic Sea). This sector employs skilled workers in port operations and in the logistic transport chain. From an environmental point of view, special attention is paid to oil spill protection and remediation

[3] Only 6 and not 7 MEA qualify as "most relevant and promising" in Estonia for the purpose of this study.

to avoid contamination of coastal areas. Deep-sea shipping is one of the largest and one of the fastest growing maritime economic activities in Estonia.

Yachting and marinas is one of the most relevant and promising maritime economic activities in Estonia because the network of small marinas along the Estonian coast has been developing consistently over the last ten years, the development is currently continuing and the future perspectives are good. The perspectives for development of this sector are good, as it relies on the aesthetic qualities of Estonian and neighbouring countries' coastal zones and high recreational potential. This kind of resource is quite limited in highly populated Europe and new competing regions are not foreseen. Increasing wealth of Estonian people and global lifestyle trends should increase the international yachting tourism. Small ports are developing with all appropriate services. The building of small crafts employs skilled and trained people, mainly situated in coastal areas or islands. All these activities are tightly connected to environmental protection and sustainable development of the coastal area.

Water projects are one of the most relevant and promising maritime economic activities in Estonia because the construction of water projects (especially ports infrastructure) is well developed and it has great potential in terms of environmental sustainability. The sector is one of the largest MEAs in Estonia. It deals with services needed by the maritime sector, ports maintenance and building, fairway maintenance, underwater works, project work and inspections and employs highly educated, skilled and trained people. As the maritime part of the Estonian economy will grow, the services of this sector will remain important and will help stakeholders to have a sustainable, growing business in this field.

Shipbuilding (excl. leisure boats) and ship repair is one of the most relevant and promising maritime economic activities in Estonia as there are internationalised Estonian shipbuilding companies whose success has been remarkable and the development of small crafts building has also been noteworthy. This MEA is one of the largest and one of the fastest growing maritime economic activities in Estonia. It has a good perspective for sustainability as the shipyards are specialised and they fill an empty lot in the shipbuilding market. The sector also employs educated people, workers are skilled and well trained and in many cases they must have international certificates. Usually the shipyards have the order portfolio for two or three years in advance. Nonetheless the competition in this sector is very tight and often the competitors are outside Europe, making this a higher risk business. All activities in the shipyards are under environmental control both from the shipyard as well as from the government side.

Fish for human consumption is one of the most relevant and promising maritime economic activities in Estonia because it provides employment for many coastal residents. The MEA is well developed in the Estonian business sector. It is one of the largest maritime economic activities. There are few companies who have long distance fishing ships; most deal with Baltic Sea and coastal fishing and the activity is limited by catch quotas. Fish processing is export oriented: salted and frozen products to eastern market, perch and pikeperch to western market. As the consumption of fish products is increasing in the world, the perspectives of this MEA are very good. The main risk factor is the quality of the marine environment in the Baltic Sea and its impact to the fish stock. The main markets are Russia and Ukraine, where the demand is expected to increase. Future developments will need new production facilities and equipment and from environmental side modern waste management systems.

3.1 Description of the nature of each of the 6 maritime economic activities and value chain

Short-sea shipping (incl. Ro-Ro)

Short-sea shipping is an important maritime economic activity in Estonia. Concerning the short-sea shipping sector one can differentiate between East-West / West-East shipments, which are related to Russian markets and on the other hand North-South / South-North shipments, which are related to Finnish markets. Thereby it is rather hard to make a clear distinction between short-sea and deep-sea shipping. The main Estonian maritime actors on the East-West direction are not shipping companies but the ports and the operators acting at the ports. Mainly they are involved in the transcontinental transport corridor

business, where Estonian ports are able to service both the inner region feeder lines and intercontinental shipping lines if necessary.

The marine transportation sector has been developing very rapidly, especially in the 2000s. Freight transportation has changed structurally; intermodal transport has created a new source of revenues for sea and coastal transport companies but also for services and cargo handling companies. Services related to sea container transportation and distribution have been permanently growing. The list of available services has diversified and a new set of companies connected to transportation of containers and logistics has been created.

There are several ports in Estonia that handle incoming and outgoing freights, such as the Tallinna Sadam (Port of Tallinn), Muuga harbour (a part of Port of Tallinn), Paldiski South harbour, Paljassaare harbour Saaremaa harbour and Old City Marina harbour. The amount of cargo handled by the Tallinna Sadam AS (Tallinn Port) was 36 million tons in 2011, which corresponded 14% of total cargo volume on the Eastern coast of the Baltic Sea. There is also the smaller Port of Pärnu, which handles mainly timber products.

Deep-sea shipping

In Estonia, deep-sea shipping is mainly related to transit goods. Outgoing transit freight, mainly Russian oil and oil products are transported to Estonia by railway or road, loaded onto ships and transported from Estonian ports. Incoming transit is transported to Estonian ports, loaded onto railway tracks or cars and transported out of Estonia. The main source of outgoing transit and also target of incoming transit has been Russia. A small proportion of transit trade has also been related to Ukraine, Kazakhstan and Belarus. This flow will continue to some extent but is limited as Russian policies attempts to handle these products (especially oil and petroleum products) as strategic goods and to direct them more onto Russian ports. On the other hand, there is also the future possibility that large container ships from East-Asia will come to Estonian ports, as the ports are deep enough and they strive for that goal. There have been negotiations with representatives from Chinese partners about possible shipping routes for containers from China targeting the markets of countries around the Baltic Sea.

The sector of ports provides mainly services of port operations and use of fairways. The other type of services is related to stevedore works and handling of cargo.

There are two main ports for deep-sea shipping: the Port of Tallinn and the Port of Sillamäe. In 2011 the total amount of goods transported through Estonia's ports was 46 million tons and 72% of it was transit trade (Estonian Statistical Office, 2012).

Yachting and marinas

The development of a network of small marinas along the Estonian coast has occurred over the last ten years and this work will be continued, especially in the development of related services. There are at least 53 small marinas that meet EU standards and even more that strive in that direction. This maritime activity is closely related to (small) shipbuilding and repair services. These small marinas with related services are very important employers and spill-over agents into the local communities and economies. This maritime economic activity is also tightly related to coastal tourism development.

Water projects

Water projects are an important sector in Estonia because it helps to improve the safety of shipping and quality of port infrastructure. It mainly includes construction of ports and marinas, quays, piers, docks and other coastal or port facilities and their repair, also dredging of waterways and other underwater works. The construction of water projects (especially ports infrastructure) is well developed in Estonia.

Shipbuilding (excl. leisure boats) and ship repair

Shipbuilding (excl. leisure boats) and ship repair includes construction of ships and the repair and maintenance of ships. Shipbuilding and ship repair is well developed in Estonia with several internationally known companies as BLRT and Baltic Workboats and existing Small Craft Cluster in Saaremaa. It is an

important sector since it has a strong socio-economic impact in Estonia, mostly in coastal areas. The sectors of shipbuilding and ship repair and maintenance are very closely tied together and also linked with other maritime economic activities.

Fish for human consumption

Fishing and fish processing for human consumption is quite an important maritime economic activity in Estonia. It provides employment for many coastal residents, as well as residents in the Lake of Peipsi neighbourhood.

In 2010, catches were reported for a total of 48 trawlers with a combined main engine capacity of 12.851 kW and a combined gross tonnage of 4.967 t. The average age of the vessels was 26 years. In 2010 the historical fishing rights to catch sprat, herring and cod in the Baltic Sea on the basis of fishing vessels' permits were distributed between 28, 29 and 10 companies respectively. The total catch of Estonian trawlers in the Baltic Sea amounted to 68.300 t in 2010. As for species, sprat and herring prevailed in catches, but small amounts of cod, smelt and flounder were caught as well. Sprat and herring were landed mainly at Estonian ports where the catch was sold to fish freezing or processing companies in cases where the fishing company itself was not engaged in the processing and marketing of fish.

The main catch area is the Baltic Sea and the main species are Baltic herring (22.000 t), sprat (27.700 t), cod (700 t), perch (550 t), smelt (298 t), flounder (213 t) (and in the high seas Northern prawn, 11 900 t).

Compared to 2005, the number of trawlers engaged in fishing decreased by 37 vessels or 43% in 2010. The number of people employed on trawlers has more than halved, from 466 in 2005 to 227 in 2010. From 2006-2010, Estonia's sprat fishing opportunities decreased from 51,061 t to 43,522 t. Herring fishing opportunities decreased from 33,442 t to 31,007 t.

According to the Commercial Register, there were 52 companies in Estonia in 2010 whose main business comprised the processing and canning of fish, crustaceans and molluscs. Sales revenue of the companies amounted to EUR 111 million during the year. Employment is about 1.900 persons. Thirteen companies were engaged in the processing and canning of fish, crustaceans and molluscs as auxiliary activities. Sales revenue from this segment amounted to EUR 1,1 million. According to the Commercial Register, most of the companies engaged in the processing of fish in 2010 operated in Harju and Pärnu Counties, accounting for 32% and 26% of the total number of companies in business respectively.

The processing industry is mainly export oriented. 75% of processed fisheries products are exported, frozen and salted products towards Eastern markets and chilled perch and pikeperch fillet towards Western markets. Export destinations include around 60 countries, the main ones being Russia, Ukraine, Finland, Sweden, Germany and Switzerland. The main products are frozen and canned fish, freshwater and salmon and trout fillets. 26% of Estonian food exports are fisheries products.

Compared to 2005, the number of fish processing companies decreased by 20% by 2010 (from 65 to 52). A similar decline was also observed in the number of employees. From 2005-2010 the average number of people employed in the fish processing industry dropped by 724 (28%) (from 2.584 to 1.860). Nevertheless, the total sales revenue of fish processing companies has been fairly constant over the last six years, ranging from EUR 99,0-124,0 million.

In 2010, the average annual gross salary per employee was 6.395 euros, up by 41% compared to 2005, but 7% less than in 2008. Of the 52 fish processing companies, 17 (33%) closed the financial year 2010 with a loss. However, the fish processing industry earned a net profit of EUR 4,0 million and provided added value of nearly EUR 21,0 million. The efficiency of fishing and fish processing companies has increased every year becoming to one of the most promising field of economy.

3.2 Description of economic and infrastructural scenario

Short-sea shipping (incl. Ro-Ro)

Both transport directions – East-West and North-South – have good perspectives for expansion, but the realisation of these opportunities depends on somewhat different factors. In the first case, one can expect an increase in the demand of shipments, but which ports and countries on the Eastern coast of the Baltic Sea and which transport corridors will win the most from this growing cargo flows, is hard to tell and it depends not only on economic factors but also political factors. The development of the Arctic sea route may bring extra volumes to North-South transportation in the far future.

On the second case – the North-South direction – the competition between different transport corridors is somewhat weaker. The increase in cargo flows between Finland and Estonia depends on tightening economic integration of these countries (intra-industrial trade) and also on the increasing trade between Finland and countries in the South (Latvia, Lithuania). In a longer perspective, the increase in shipment between Helsinki-Tallinn can be expected after launching the RailBaltic railway. To a certain extent, shipping between Tallinn and Helsinki may be influenced by the need to separate more the goods and passenger transport loads to avoid traffic-jams in the city (increase in the share of Ro-Ro ships compared to Ropax ships).

Total cargo volumes increased by 5,4% from 2010 to 2011. The greatest influence on the change in port volumes and market position was the growth in general cargo (mainly containers) and dry bulk (coal and fertilizers) (Tallinna Sadam 2012). A new prospective port is that of Sillamäe, which is being developed through private capital. The development of distribution centres in Estonian ports should also help increase the volumes of short-sea shipping.

The owners of the maritime companies belong mostly to the private sector, except for the ports, where the biggest company, Tallinna Sadam AS, is in state ownership. Nevertheless, the investments of this company have been made from earned profits and practically no support from state budget has been provided. In the sector of freight transportation, the three largest companies are AS Baltic Scandinavian Lines with a turnover of EUR 13,7 million in 2011, Tschudi Lines Baltic Sea AS with EUR 13,7 million and Tschudi Lines Nordic Sea AS with EUR 9,1 million. The two last companies are 100% owned by investors from Norway.

Environmental sustainability plays an important role in the development of short-sea shipping in Estonia since new technologies and equipment makes it more environmentally-friendly.

Deep-sea shipping

As the international economy is beginning to recover from the economic crises the maritime shipment business, especially container-goods shipping, is experiencing surplus conditions. The profit margins of the actors in the (maritime) transport corridors are low and this situation does not favour larger investment projects at the ports (yet). The other problem is the still unclear impact from the coming taxes motivated by the ecological factors (sulphur; NOx); it is feared the some of the shipments will move to roads and railways as a result. Another problem is that the countries in the central Baltic Sea region are not motivated enough to agree about locations and conditions of large infrastructure projects requiring international cooperation (for example building the LNG terminal).

Altogether the Estonian competitiveness in servicing long(er) distance transit cargo flows remains high, because of the geo-economical position, availability of deep water ports, good cooperation of ports and port operators with other transport (trucks and railway) and high competence in ICT literacy. As the international transit transportation flows are using mainly international shipping lines, it means good earning perspectives for Estonian ports, operators and other companies in those transport corridors and not so much for the Estonian ship owners.

The Tallinna Sadam AS (Port of Tallinn) is the largest company, especially Muuga Harbour (a part of Port of Tallinn) that serves deep-sea shipping goods. The consolidated turnover of the company was EUR 89,2 million and operating profit was EUR 42,7 million in 2011, the operating margin being high as 47,8%. The

turnover of Tallinna Sadam AS is approximately 70% of the total turnover of Estonia´s ports (Tallinna Sadam, 2012). The second largest company in the deep-sea shipping sector is Sillamäe Sadam AS, whose turnover was EUR 14 million. Sillamäe Sadam is located in Eastern Estonia, close to Estonia´s border with Russia and the location enables efficient transportation of transit products from and to Russia (Port of Sillamäe, 2011).

From an environmental sustainability standpoint, new infrastructure projects in Estonian ports and new technologies and equipment allow serving ships with environmentally friendly technologies, thus making a positive contribution.

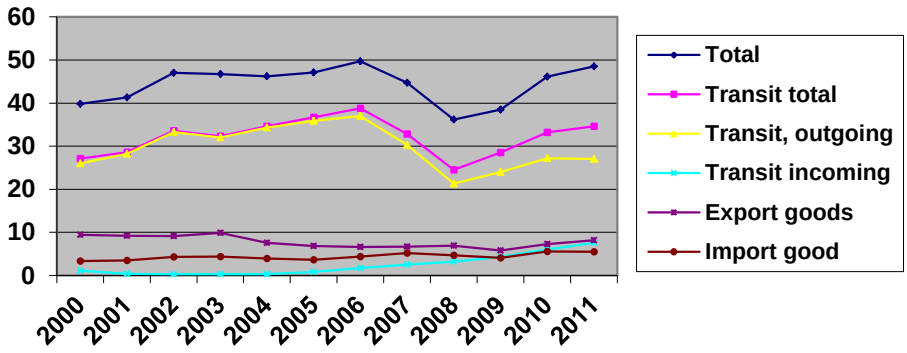

Figure 1. Transport of goods through Estonian ports. (Source: Statistics Estonia, 2012).

Yachting and marinas

As the sector of building small leisure boats and yachts is growing throughout Europe Estonia is also benefiting from that. The development of small marinas has been in progress for several years and will continue, along with the development of the related services. The perspective for the Yachting and marinas sector are overall good. This is due to the natural preconditions (long coastal line, beautiful gulfs), the continuous development of a network of marinas and the development of tourism in coastal regions. The Estonian marinas are visited by foreigners, but also by lot of Estonians. The increase in the standard of living of Estonians has definitely had a positive impact on the number of Estonian yacht and boat owners.

There is amplification effect between this sub-function and small crafts building industry, which has long traditions in Estonia and is now growing.

Yachting and marinas is an environmentally friendly MEA as a result of regulations and acts that require these activities to follow all environmental requirements and thereby improve the overall environmental sustainability in Estonia.

Water projects

The size of this MEA is tightly related to the expansion projects of Estonian ports and marinas. If the demand grows the companies are ready to respond, as it was seen through the recent success in the Port of Sillamäe, where the construction was carried out very quickly. How much the national knowledge base can be used for future water projects depends partly on the public sector's support for education and applied sciences' development in this area. Upcoming environmental regulations (Sox, NOx, CO2) force the modernization of ports to supply ships with new fuels (LNG terminals in Paldiski), build shore-electricity supply in ports to reduce CO_2 and noise, all of which generates more water projects and building of facilities.

Port facilities are mainly built by large construction companies. The main sub-contractor for them and often the main contractor for the construction of ports and other infrastructure objects is Insenerehitus Ltd. The company is specialised in piling, excavation and concrete works as well as rental of construction equipment. They also have projects in Russia and Latvia. The largest company is KMG Ehitus with a turnover of EUR 23.88 million and 34 employees in 2010. The largest employer is GT PROJECT with 37 employees in 2011. There are also a number of larger projects which are carried out by other construction enterprises and

these projects are ordered by ports or the state. Ramboll Estonia is one of the leading providers of independent consulting services across the spectrum of port planning and design, marine structures and coastal engineering. Similar competences are also offered by E-Konsult in Estonia. These companies are all internationally competitive but their specialist knowledge is mainly used in Latvia and Russia. The other companies in Estonia are smaller and their main clients are also small ports and marinas.

Water projects have huge potential in terms of environmental sustainability since all new projects have large environmental requirements, thus helping to improve the environmental situation in Estonia.

Shipbuilding (excl. leisure boats) and ship repair

The Baltic Ship Repair group (BLRT) is largest company in Estonia and it´s activities include shipbuilding, ship-repair, production of large-scale metal constructions, metal processing, machine building, medical and technical gases. BLRT is the largest company in the Baltic States. It had a turnover of EUR 347,3 million in 2011, which was around 75% of the total turnover of the shipbuilding and ship repair sector in Estonia. The group has 4.004 workers, 1.843 of them working in Estonia.[4] It is well developed and combines its production capacities to meet the needs of sophisticated markets with specific demands. The company has been producing floating structures for Norway's fisheries and for offshore wind farms. The company diversified its production capacities, especially in Estonia and Lithuania and managed to keep a competitive quality-cost ratio. Another important and innovative company is Baltic Workboats with turnover of EUR 14,94 million and 79 employees. The other companies in the shipbuilding sector are small and medium size companies and producers of niche products. They manage to use local resources and their labour costs have been competitive.

There is a small cluster of producers on Estonian islands where cost is lower and local tradition plays an important role in developing the sector[5]. 15 companies are active in the Small Craft Cluster in Saaremaa. In 2011, the small craft production in Saaremaa was responsible for 80% of the sector's turnover, 85% of sector's exports and 92% of the sector's net profit in Estonia.

In terms of the future development of this sector one can distinguish between the internationalised Estonian company BLRT's development and the development of small crafts building. The success of BLRT depends largely on their competitiveness in this highly competitive international market (both ship repair business and building of the vessels for special use). National demand is minimal. In the small crafts industry, there are quite a lot of companies and they are grounded on long traditions, but also on some public sector support for the objective of clustering. The success depends on how well these companies are able to market the local (e.g. Saaremaa) brands internationally and achieve growth in orders. The complex conditions for the development of the small crafts industry in Estonia can be estimated to be very good.

Shipbuilding and ship repair is closely tied to several regulations, which include a substantial number of environmental sustainability requirements.

Fish for human consumption

In Estonia the perspectives for the long distance fishing, Baltic Sea fishing and coastal fishing must be looked upon separately. Outside the Baltic Sea, mainly in the Northern Atlantic Sea one can expect that Estonian companies will continue to be as competitive in the future as they are now. But there are only a few Estonian companies and a small number of boats.

Considering the Baltic Sea catch, everything depends on the general renewability of the fish stock and the size of the catch quotas. Catch quotas in the Baltic Sea are expected not to decrease in coming years. The perspectives depend also on how well Estonian companies are able to maintain their positions in purchasing Baltic herring and other fish quotas from neighbouring countries and marketing the fish to the eastern countries (Russia, Ukraine). The demand from these markets is expected to grow. Therefore

[4] http://www.bsr.ee
[5] Smartcomp Report 2. Estonia´s Maritime Cluster. 2013. Tallinn University of Technology, Tallinn

Estonian fisheries have an ambitious plan to become a logistical purchasing agent for sprat and herring in the region with the purpose of freezing and selling to eastern markets.

As for coastal fishing, it is expected to continue to shrink and remain only as recreational fishing.

Fish processing is mainly export oriented in Estonia: frozen and salted products to eastern markets and perch and pikeperch fillet to western markets (although occasional problems in sales of production on the eastern markets have forced many east-oriented companies to become more cautious and to find new markets in order to diversify and lower risks). Future scenarios see improvements in refrigeration systems, construction of new production facilities, acquisition of production lines and equipment and waste management[6].

As a whole one can notice one limiting problem for this sector and it is personnel: the fisherman's job is not respected and valued enough. Young people find other jobs more challenging.

The sector must follow strict environmental regulations.

3.3 Regulatory environment of the maritime economic activities

The most relevant document on the development of Estonian maritime sector is «Estonian Maritime Policy 2012-2020» developed by the Estonian Ministry of Economic Affairs and Communication. The development plan depicts the situation in marine sector and gives a comprehensive overview of (20) other development plans related to the marine sector. Estonian Maritime Policy is concentrated on the themes that have not been very successful policy areas yet. The strategy puts a lot of emphasis on shipping. One of the key tasks is to bring ships under the Estonian flag. Another is building/buying a new icebreaker. The development of coastal areas through small ports and marinas is also a topic within the strategy.

Short-sea shipping (incl. Ro-Ro)

This sector is mostly regulated by international regulations: the International Convention for the Safety of Life at Sea (SOLAS), 1960 and 1974 (SOLAS 1974/1978) and the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) (MARPOL 1973/1978) in 1992. The latest convention ratified by the government in 2003 was the Athena Convention of Passengers and Luggage 1974 (PAL 1974) and amendment (PAL PROT 1976).

Estonia has implemented relevant maritime regulations and directives of the European Parliament and of the Council. In addition, national regulations regulate short-sea shipping through the Ship's Property Act of 1998, the Act of Ship's flag licence and ship registers of 1998, the Maritime Safety Code of 2003 and the Maritime Service Act of 2004.

Deep-sea shipping

This sector is mostly regulated by the same regulations and national acts as for short-sea shipping. In addition, the national acts Merchant Shipping Act of 2002 and the Merchant Shipping Code of 1992 are also applicable.

Yachting and marinas

This sector is mostly regulated by the national Act of Ports of 1998.

Water projects

This sector is mostly regulated by the Act of Ports of 1998, which implemented relevant maritime regulations and directives of the European Parliament and of the Council.

[6] Estonian Fishery 2010.

Shipbuilding (excl. leisure boats) and ship repair

This sector is regulated by international standards for ship safety and security (SOLAS, MARPOL), as well as regulations on classification societies such as Lloyd's Register, Det Norske Veritas, Bureau Veritas, Russian Maritime Register of Shipping.

Fish for human consumption

This sector is related to the EU quotas and also the Estonian Act of Catching Fish adopted in 1996. Also the Estonian Government's regulation "Set of rules for Catching fish" (2003) and several other regulations of the Estonian Ministry of Environment, which coordinates this economic activity.

4. Growth drivers and barriers to growth for the 6 most promising marine and maritime economic activities

Table 8 - Strengths and weaknesses analysis of most promising maritime economic activities

Short-sea shipping (incl. Ro-Ro)
(Benchmark instance: The Netherlands)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	from Benchmark analysis	from SWOT analysis	from Benchmark analysis
Maritime research	Some domestic maritime research, for example on intermodal and multimodal solutions in ports	Some knowledge is purchased from partners, for example concerning spatial solutions in ports, usually high level and well-used	No special research groups on shipping	Very limited funding for research
Development and innovation	ICT development capacity		Lack of special development organisations on maritime themes	High competition
Access to finance	Financial capacity of strong companies			
Smart infrastructure	ICT capacity.	Modern infrastructure and continuous development		
Maritime clusters	Estonian Logistics Cluster. Connection between maritime business and tourism via Estonian Tourism Centre (tourists using Ropex ferry-lines and cruise lines)			
Education, needs in training and skills	New master program for maritime logistics at Tallinn Technical University	Good professional training from Estonian Maritime Academy	Fragmented	Problems with financing the educational institutions
Maritime spatial planning	There is land available for new terminals			
Integrated local development		Local governments are trying to open the sea to the people and businesses	Some problems with local land owners and local communities, because of additional transport loads (noise, safety)	
Public engagement	Wide public engagement, including shipping business actors and different stakeholders in preparing Estonian Maritime Policy document		Difficult political relations with Russia hindering use of Estonian ports for Russian-related cargo	

Deep-sea shipping

(Benchmark instance: Greece)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	from Benchmark analysis	from SWOT analysis	from Benchmark analysis
Maritime research	Knowledge, purchased from such leading countries as Finland, Netherlands, Germany and Norway is a good basis for further development	Knowledge, purchased from such leading countries as Finland, Netherlands, Germany and Norway is a good basis for further development	Lack of researchers.	Extremely limited private and public funding for maritime research
Development and innovation	ICT-related system developments	Strong links with ports – common interests in terminal developments. Large possibilities are seen in growing eastern markets.	Lack of researchers.	Tight competition with Finnish, Russian and Latvian ports because of the Russian and eastern markets
Access to finance	Financial capacity of strong companies is good			
Smart infrastructure	New and renewed infrastructure	Deep ports	Long pay-off period of infrastructure development	
Maritime clusters	Estonian Logistics Cluster	Strong internationally acclaimed companies		Weak linkages with local industries to give value added to the transported goods
Education, needs in training and skills	New master program for maritime logistics at Tallinn Technical University	Estonian Maritime Academy Maritime Museum	Fragmented	Poorly funded state higher education institutions
Maritime spatial planning	Availabilities for ports' infrastructure for new terminals		Widening of ports is hindered not by problems in spatial planning practices, but by long pay-off period of the infrastructures and poor relations with Russia (incl. border crossings)	
Integrated local development		Local governments are trying to open the sea to the people and businesses.	Some problems with local land owners and local communities, because of additional transport loads.	
Public engagement	Wide public engagement, including shipping business actors and different stakeholders in preparing Estonian Maritime Policy document			State's activities on developing Estonia as maritime country are vague

Yachting and marinas

(Benchmark instance: Italy)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	from Benchmark analysis	from SWOT analysis	from Benchmark analysis
Maritime research	Environmental studies, important for example in environmental impact assessments for marina development are in good level in Estonia		Lack of researchers	
Development and innovation	New marinas are being continuously developed: new knowledge produced in learning by doing. Estonian Marinas Development Centre, Small Crafts Cluster		Lack of researchers and engineers	
Access to finance				Usually micro- and small companies (not so credible for financers)
Smart infrastructure	More than 53 marinas that respond to the EU standards		Some Estonian coastal locations still lack good infrastructure	Some locations on Estonian coast still lack the suitable marinas
Maritime clusters	Estonian Cruising Association, Estonian Marinas Development			Cruising association and marinas development centre are volunteer based

	Centre, Small Crafts Cluster			organisations and their capacity is limited
Education, needs in training and skills	Skipper and sailing courses are popular and at good level. New courses on small craft building			
Maritime spatial planning	Possible locations for marinas development available	Maps and navigation systems are improved continuously	Sometimes problems with (coastal) land owners	
Integrated local development	Often supported by the local governments (as it boosts local development)			Inadequate public transport from the marinas to the hinterland
Public engagement				No government support for the development of a network of marinas

Water projects

(Benchmark instance: Belgium)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	**from Benchmark analysis**	**from SWOT analysis**	**from Benchmark analysis**
Maritime research	Ecological studies (waves, coastal changes etc.) in good level		Coordination problems in developing corresponding research in Estonian universities not solved at present	
Development and innovation	New technologies are used	Innovative private sector (software solutions)	New knowledge mainly purchased outside Estonia.	Foreign experts are expensive.
Access to finance	Sufficient	Multiple sources	Long pay-off period of water projects	
Smart infrastructure		Ports and marinas are developed with the latest possible technologies		New developments are expensive
Maritime clusters	Intensely related to construction business	Academic and professional (public) education available in construction and engineering	Special knowledge (maritime engineering) often purchased outside Estonia	
Education, needs in training and skills	Good level of general construction and engineering education		Special knowledge (engineering) often purchased outside Estonia	General lack of interest for engineering degrees
Maritime spatial planning	Different public and private stakeholders are involved in long-term maritime strategy			No clear vision of government, every local government has its own plans
Integrated local development				Little debate between different stakeholders (public, private, communities)
Public engagement		Some active local communities		Sometimes bad press and inadequate public debate

Shipbuilding (excl. leisure boats) and ship repair

(Benchmark instance: Germany)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	**from Benchmark analysis**	**from SWOT analysis**	**from Benchmark analysis**
Maritime research			Lack of researchers	Only little involvement and experience in maritime research
Development and innovation	Small Crafts Competence Centre in Saaremaa	Eager to use foreign expertise and knowledge	Lack of engineers	Lot of knowledge is purchased outside: Finland, Norway, etc.
Access to finance	Sufficient access	Sufficient access		
Smart infrastructure	Continuously developed	Continuously developed	Climatic specificities – can't build/repair ships on the outer docks during the winter season, which makes the infrastructure development and maintenance more expensive.	

Maritime clusters	Small Crafts Cluster The cluster development is supported by the cluster programme	Cross-border cooperation and partnering	-	-
Education, needs in training and skills	New courses on small crafts building	Long traditions in small crafts building	Lack of ship engineering courses	Lack of high level (special maritime) engineering education
Maritime spatial planning				
Integrated local development	Saaremaa cluster is supported by local government.	Mainly supported by local governments		
Public engagement			Fragmented direct government responses	

Fish for human consumption

(Benchmark instance: The Shetland Islands)

	Drivers for Growth		Barriers for Growth	
	from SWOT analysis	**from Benchmark analysis**	**from SWOT analysis**	**from Benchmark analysis**
Maritime research	Applied research, e.g. stock assessment is at the region's best level	Local knowledge about fish resources in the Baltic Sea	Coordination problems in developing corresponding research in Estonian universities not solved at present	Coordination problems in developing corresponding research in Estonian universities not solved at present
Development and innovation		The aim is to become the centre of fishing for human consumption from central Baltic Sea region		
Access to finance		The Russian and Ukrainian markets are large, giving credit for companies' development	The limit of quotas	The limit of quotas
Smart infrastructure		Contemporary freezing technologies, important for export		
Maritime clusters	Creation of cross-border clusters for scale-economy (e.g. for catch, processing and sale of Baltic herring)	Clustering tends to occur across borders. Fish is also purchased from Latvian and Finnish boats.		
Education, needs in training and skills			Vocational education is not very popular in Estonia	The average age of personnel is growing
Maritime spatial planning		The development of GIS is continuing.	The effect of maritime spatial planning for fishing is quite limited due to shrinking local (coastal) fishing	
Integrated local development	Regional coastal governments foster fishing culture.		Local budgets are too limited for stronger impacts on the sector	
Public engagement	Wide public engagement, including fishing business actors and different stakeholders, in preparing Estonian Maritime Policy			

5. List of existing clusters

It is characteristic of Estonia that cluster creation or cluster building are not taking place in the maritime field, but different maritime actors are involved in clusters of other economic sectors. Estonian ports are mainly transit transportation ports and are integrated with railway transport, road transport and other transit transport servicing companies in the logistics cluster. The **Estonian Logistics cluster** is a joint

initiative dedicated to the international marketing of the members' services, introduction of the logistic advantages of Estonia to the target markets, research and development and logistics education.[7]

Passenger transport between Tallinn-Helsinki and Tallinn-Stockholm along with cruise shipping is tied to the activities of the tourism cluster (tourism companies, accommodation, commerce).

The best example of smaller, local clusters is the Saaremaa Small Craft Cluster. Saaremaa small craft construction is characterised by a diverse production range: output varies from renovating old wooden boats to building modern high-end yachts and workboats. Saaremaa boat builders and subcontractors have formed a **Small Craft cluster** that represents the core of the Association of Estonian Shipyards, a member of the European Boating Industry. The Small Craft Competence Centre looks for cooperation and mutual business opportunities with foreign universities, research institutions and companies. For companies, the Competence Centre provides product development and trial manufacturing opportunities in cooperation with the Competence Centre and local companies.[8]

Cluster type networks of enterprises can be observed around the Port of Tallinn, the Port of Muuga and the Port of Vanasadam. They are the companies that service ships and cargo (stevedoring, storing, forwarding etc.), it is a port-community type of cooperation.

There are also several networks fostering maritime business development in Estonia, e.g. the **Estonian Ports Association** gathers all active commercial ports in Estonia. Besides those, there are also smaller ports, which definitely give their contribution to encouraging and developing the Estonian ports enterprise. The Estonian Ports Association mission is to promote and encourage Estonian maritime organizations from one border to another.[9]

The **Estonian Cruising Association**[10] was formed in order to promote amateur sailing and sea-going possibilities in Estonia. They introduced and developed common marketing for Estonian marinas. This association is also a member of the **Estonian Marinas Development Centre,** whose goals are related to the development of small crafts and ports, sea tourism, coastal life, maritime education and maritime coastal heritage.

There are a lot of cooperating companies also around the Port of Sillamäe and the ship-building company BLRT, but the cooperation there goes on mainly among the firms inside one consortium and therefore it cannot be considered a cluster in its strict meaning.

Table 9 - List and analysis of clusters

Cluster	Member State(s)	Maritime economic activity(s) covered	Status (mature, growing, early development)	Strengths	Weaknesses
Estonian Logistics Cluster	Estonia	Deep-sea shipping Short-sea shipping	growing	Strong companies, strong leadership	Weak cooperation between companies, strong competition.
Saaremaa Small Craft Cluster	Estonia	Ship-building	growing	Long traditions, great competences, cooperation with educational institutions	Weak demand on local market. Shipbuilding is oriented mostly to export.
Estonian Tourism Centre	Estonia	Cruise tourism Yachting and marinas	mature	Strong companies, developing field of activities.	Not enough popularity to promote itself to market.
Estonian Ports Association	Estonia	Deep-sea shipping Short-sea shipping Ports	mature	Strong companies	Dependence from the Russian policy.
Estonian	Estonia	Yachting and	Early	Increasing field of activities	Administrative burdens

[7] http://www.transit.ee/logistics-cluster
[8] http://www.investinestonia.com/en/small-craft-building/small-craft-building
[9] http://www.estonianports.com/
[10] http://www.marinas.nautilus.ee

Cruising Association		marinas Short-sea shipping	development	every year.	impede the fluent passenger flow.
Estonian Wind Power Cluster	Estonia	Off-shore wind	Early development	Perspective in the land and offshore.	Fragmented, lot of micro actors. Legal act does not support micro actors.

6. Analysis of maritime strategies at regional and national level, as well as those under preparation and their links with Smart Specialisation Strategies

Maritime Strategies

Analysis show that most of the maritime strategies at regional and national level are strongly connected with maritime economic activities and Blue Growth objectives. Especially close links can be seen between national strategies and maritime economic activities.

The MEAs of Short-sea shipping (incl. Ro-Ro) and Deep-sea shipping are both very well supported by Estonian maritime-related strategies, including the **Estonian Maritime Policy 2012-2020**, the **Estonian Ice-breaking Policy 2006-2013**, the **National Plan for Sea Pollution Control**, the **Transport Development Plan 2006-2013**, the **Regional Development Strategy of Estonia 2005-2015**, the **Estonian Fisheries Strategy 2007-2013**, the **Estonian National Tourism Development Plan 2007-2013**, the E**stonian National Strategy on Sustainable Development**, the **Environmental Strategy 2030**, the **National Spatial Plan – Estonia 2030+**, the **National Development Plan of the Energy Sector until 2020**, the **Development Plan of the Estonian Electricity Sector until 2018**, and the **National Strategic Reference Framework 2007-2013**.

In addition to the **Estonian Fisheries Strategy 2007-2013**, Fish for human consumption is also supported by the **Estonian Maritime Policy 2012-2020**, the **National Plan for Sea Pollution Control**, the **Regional development strategy of Estonia 2005-2015**, the **Estonian National Strategy on Sustainable Development**, the **Environmental Strategy 2030**, the **National Spatial Plan – Estonia 2030+** and the **National Strategic Reference Framework 2007-2013**.

Yachting and marinas is supported by the **Estonian Maritime Policy 2012-2020**, the **National Plan for Sea Pollution Control**, the **Regional development strategy of Estonia 2005-2015**, the **Estonian National Tourism Development Plan 2007-2013**, the **Environmental Strategy 2030**, the **National Spatial Plan – Estonia 2030+** and the **National Strategic Reference Framework 2007-2013**.

Water projects is supported by the **Estonian Maritime Policy 2012-2020**, the **National Plan for Sea Pollution Control**, the **Environmental Strategy 2030**, the **National Spatial Plan – Estonia 2030+**, the **National Development Plan of the Energy Sector until 2020**, the **Development Plan of the Estonian Electricity Sector until 2018** and the **National Strategic Reference Framework 2007-2013**.

Shipbuilding (excl. leisure boats) and ship repair is supported by the **Estonian Maritime Policy 2012-2020**, the **National Plan for Sea Pollution Control**, the **Estonian Fisheries Strategy 2007-2013**, the **Environmental Strategy 2030**, the **National Spatial Plan – Estonia 2030+**, the **National Development Plan of the Energy Sector until 2020**, the **Development Plan of the Estonian Electricity Sector until 2018** and the **National Strategic Reference Framework 2007-2013**.

The education, training and research oriented strategies **Estonian Higher Education Strategy 2006-2015**, **Development Plan for the Estonian Vocational Education and Training System 2009-2013**, and **Estonian Research and Development and Innovation Strategy 2007-2013** contribute to the support of all 6 of the most promising and relevant MEAs in Estonia.

Table 10 - Policies/interventions towards maritime economic activities, their objectives and links to the most relevant and promising maritime economic activities (see Table 11 for links between most relevant and promising maritime economic activities and blue growth focus areas and objectives)

Level	Strategies	Objectives	Most relevant and promising maritime economic activities
National	Estonian Maritime Policy 2012-2020	Business friendly and internationally competitive business environment in Estonia Safety and security at sea Clean marine environment in Estonian territorial waters Development of the Estonian public sector organisation on maritime affairs Development of Estonian marine education and R&D Attractiveness of coastal environment for tourism	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas Water projects Shipbuilding (excl. leisure boats) and ship repair Fish for human consumption
National	Estonian Ice-breaking Policy 2006-2013	Supply vessels visiting the ports of Estonia with high quality, safe and effective ice breaking, which is equivalent to neighbouring states	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping
National	National Plan for Sea Pollution Control	Ensure pollution prevention, detection, eradication, and environmental restoration with effective use of the state, business and the community sector capacity in Estonia.	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas Water projects Shipbuilding (excl. leisure boats) and ship repair Fish for human consumption
National	Transport Development Plan 2006-2013	Estonian maritime transport infrastructure development (incl. purchasing of new ice-breaker) Safety at sea in territorial waters Technology for sea pollution control activities	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping
National	Regional Development Strategy of Estonia 2005-2015	Regional development Coastal regions development trends and activities	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas Fish for human consumption
National	Estonian Fisheries Strategy 2007-2013	Increasing the income of Estonian fishermen Balancing country's fishing possibilities and capacities (incl. ports and fleet development) Developing fish farming as an unused potential	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Shipbuilding (excl. leisure boats) and ship repair Fish for human consumption
National	Estonian National Tourism Development Plan 2007-2013	Valued destination in international markets Tourism products and services are in high quality, diverse, and consistent with sustainable development principles Tourist information is up to date and easily accessible to all visitors in Estonia	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas
National	Estonian National Strategy on Sustainable Development	Sustainability of long-term development of the Estonian state and society Ecological balance and activities at Baltic sea General growth of welfare	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Fish for human consumption
National	Environmental Strategy 2030	Long-term goals in reduction of waste Long-term goals in the pollution load Sustainable use of water and mineral resources in Estonia Preservation of the diversity of nature	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas Water projects Shipbuilding (excl. leisure boats) and ship repair Fish for human consumption
National	National Spatial Plan – Estonia 2030+	Establishes bases for shaping settlement, mobility, national technical infrastructure and regional development Establishes bases for possible locations for off-shore wind farms	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Yachting and marinas Water projects Shipbuilding (excl. leisure boats) and ship repair Fish for human consumption
National	National Development Plan of the Energy Sector until 2020	Directions of the Estonian power engineering New energy sources	Short-sea shipping (incl. Ro-Ro) Deep-sea shipping Water projects Shipbuilding (excl. leisure boats) and ship repair
National	Development	To increase the proportion of other sources of	Short-sea shipping (incl. Ro-Ro)

	Plan of the Estonian Electricity Sector until 2018	energy, incl. offshore wind farms development	Deep-sea shipping
			Water projects
			Shipbuilding (excl. leisure boats) and ship repair
National	National Strategic Reference Framework 2007-2013	Better connection to the world, incl. sea connections development	Short-sea shipping (incl. Ro-Ro)
			Deep-sea shipping
			Yachting and marinas
			Water projects
			Shipbuilding (excl. leisure boats) and ship repair
			Fish for human consumption
National	Estonian Higher Education Strategy 2006-2015	Development of maritime (related) education in Estonia	Short-sea shipping (incl. Ro-Ro)
			Deep-sea shipping
			Yachting and marinas
			Water projects
			Shipbuilding (excl. leisure boats) and ship repair
			Fish for human consumption
National	Development Plan for Estonian Vocational Education and Training System 2009-2013	Make vocational education closer to real life and society's needs through good cooperation with social partners in place, incl. entrepreneurial clusters	Short-sea shipping (incl. Ro-Ro)
			Deep-sea shipping
			Yachting and marinas
			Water projects
			Shipbuilding (excl. leisure boats) and ship repair
			Fish for human consumption
National	Estonian Research and Development and Innovation Strategy 2007-2013	Competitive quality and increased intensity of research and development Innovative entrepreneurship creating new value in the global economy Innovation friendly society aimed at long-term development	Short-sea shipping (incl. Ro-Ro)
			Deep-sea shipping
			Yachting and marinas
			Water projects
			Shipbuilding (excl. leisure boats) and ship repair
			Fish for human consumption

Table 11 – Most relevant and promising maritime economic activities and ties to blue growth focus areas (top) / Blue growth focus areas and objectives

Most relevant and promising maritime economic activities	Blue growth focus area
Short-sea shipping (incl. Ro-Ro)	Maritime, coastal and cruise tourism
	Blue technology
Deep-sea shipping	Maritime, coastal and cruise tourism
	Blue technology
Yachting and marinas	Maritime, coastal and cruise tourism
Water projects	Marine and mineral resources
	Blue energy
	Maritime, coastal and cruise tourism
Shipbuilding (excl. leisure boats) and ship repair	Blue technology
	Maritime, coastal and cruise tourism
Fish for human consumption	Marine and mineral resources
	Maritime, coastal and cruise tourism
	Aquaculture

Blue growth objectives	
Blue energy:	Enhance the efficiency of harvesting the European energy resources
	Minimise land-use requirements of the power sector
	Reduce the European greenhouse gas emissions
Aquaculture:	Contribution to an overall improvement in human diet and more quality merchandise
	Diversification of coastal communities activities
	Preservation of fish stock sustainable aquaculture
	Promote aquaculture based on binding strategic guideline, multiannual national strategic plans and the exchange of best practices
Maritime, coastal and cruise tourism:	Healthy environment
	Increase the growth potential of activities
	Increase the attractiveness of coastal areas
Marine and mineral resources:	Advances in technology
	Security of supply

Blue technology:	Provider of mass-market products High added value specialised products

Smart Specialisation Strategies

In Estonia, all of the above 16 strategies and policies are understood to be Smart Specialisation Strategies.

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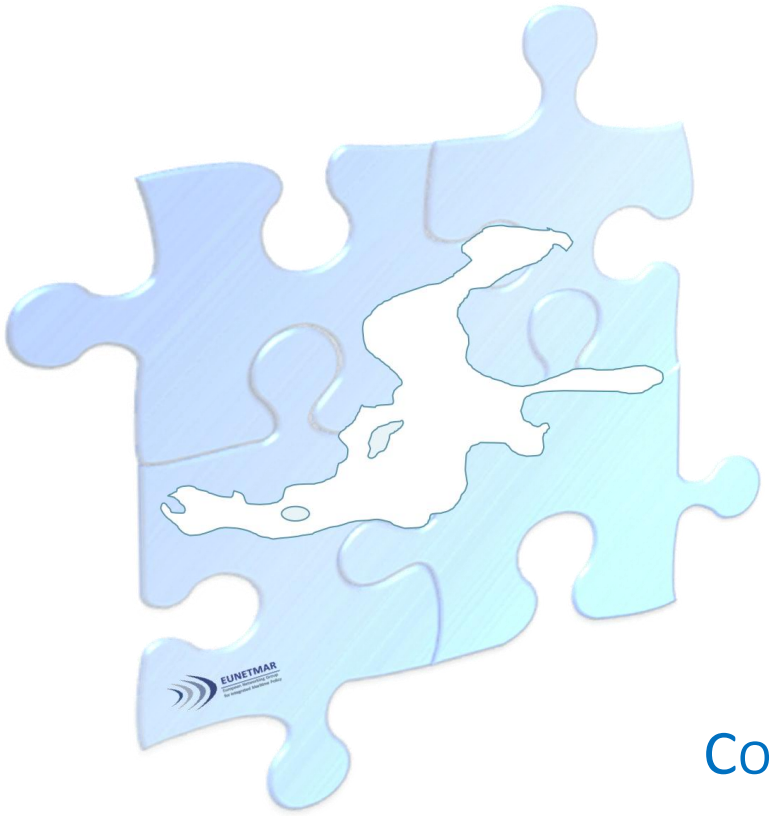
STUDY ON BLUE GROWTH, MARITIME POLICY AND EU STRATEGY FOR THE BALTIC SEA REGION



CONTRACT NUMBER

MARE/2012/07 - REF. NO 1

COUNTRY FICHE ANNEX

ESTONIA

DECEMBER 2013

EUNETMAR
European Networking Group for Integrated Maritime Policy

COGEA
Consulenti per la Gestione Aziendale

ANT International

azti tecnalia

Centro Tecnológico del Mar

Eurofish International Organisation

Poseidon Aquatic Resource Management Ltd

s.Pro sustainable projects

SINTEF

Contents

1. 7 largest maritime economic activities: indicative size of all activities

Maritime economic activity		GVA (EUR, billion)	Employment (*1000)	Score	Source & Reference year
0. Other sectors					
0.1	Shipbuilding (excl. leisure boats) and ship repair	0,41	4,92	4,51	Eurostat, EMTAK (2010)
0.2	Water projects	0,81	0,18	4,14	Eurostat (2010)
1. Maritime transport					
1.1	Deep-sea shipping	0,12	0,20	0,70	Eurostat, EMTAK, (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	0,22	0,40	1,30	Eurostat, EMTAK, (2010)
1.3	Passenger ferry services	0,03	1,32	0,81	Eurostat, EMTAK, (2010)
1.4	Inland waterway transport	0,00	0,00	0,00	Eurostat (2010)
2. Food, nutrition, health and ecosystem services					
2.1	Fish for human consumption	0,06	4,66	2,61	Eurostat (2010), STEFC annual economic report on the EU fishing fleet (2010, 2011, 2012)
2.2	Fish for animal feeding	0,0009	0,06	0,03	Eurostat (2010)
2.3	Marine aquaculture	0,00	0,00	0,00	Eurostat, Marine aquaculture fish_aq2a (2010)
2.4	Blue biotechnology	0,00	0,00	0,00	
2.5	Agriculture on saline soils	0,00	0,00	0,00	The Saline and Sodic Soils Map. Joint Research Centre
3. Energy and raw materials					
3.1	Offshore oil and gas	0,00	0,00	0,00	
3.2	Offshore wind	0,00	0,00	0,00	European Wind Energy Association (EWEA)(2013)
3.3	Ocean renewable energy	0,00	0,00	0,00	
3.4	Carbon capture and storage	0,00	0,00	0,00	
3.5	Aggregates mining (sand, gravel, etc.)	0,00	0,00	0,00	http://www.uepg.eu/statistics/estimates-of-production-data (2010)
3.6	Marine minerals mining	0,00	0,00	0,00	EMTAK (2010)
3.7	Securing fresh water supply (desalination)	0,00	0,00	0,00	
4. Leisure, working and living					
4.1	Coastal tourism	0,05	4,30	2,40	Eurostat (2010)
4.2	Yachting and marinas	0,08	0,30	0,55	Eurostat (2010)
4.3	Cruise tourism	0,004	0,12	0,08	Eurostat (2010)
5. Coastal protection					
5.1 – 5.2	Coastal protection	0,00	0,00	0,00	
5.3	Protection of habitats	0,005	0,05	0,05	Eurostat 2011
6. Maritime monitoring and surveillance					
6.1	Traceability and security of goods supply chains	0,01	0.12	0,11	Estonian Public Service 2010, 2008 Riigiteataja 2010, 2008
6.2	Prevent and protect against illegal movement of people and goods	0,02	0,20	0,20	Estonian Public Service 2010, 2008 Riigiteataja 2010, 2008
6.3	Environmental monitoring	0,04	0,21	0,31	Estonian Public Service 2010, 2008 Riigiteataja 2010,2008

2. 7 fastest growing maritime economic activities: relative growth of all activities

Maritime economic activity		GVA (CAGR, %)	Employment (CAGR, %)	Score	Source & Reference year
0. Other sectors					
0.1	Shipbuilding (excl. leisure boats) and ship repair	-10,03	-1,64	-5,84	Eurostat, EMTAK (2010)
0.2	Water projects	-17,47	-12,97	-15,22	Eurostat (2010)
1. Maritime transport					
1.1	Deep-sea shipping	8,06	10,37	9,21	Eurostat, EMTAK, (2010)
1.2	Short-sea shipping (incl. Ro-Ro)	-3,14	-1,09	-2,12	Eurostat, EMTAK, (2010)
1.3	Passenger ferry services	-11,61	-10,93	-11,27	Eurostat, EMTAK, (2010)
1.4	Inland waterway transport	0,00	0,00	0,00	Eurostat (2010)
2. Food, nutrition, health and ecosystem services					
2.1	Fish for human consumption	1,34	-8,13	-3,39	Eurostat (2010), STEFC annual economic report on the EU fishing fleet (2010, 2011, 2012)
2.2	Fish for animal feeding	-2,76	-13,06	-7,91	Eurostat (2010)
2.3	Marine aquatic products	0	0	0	Eurostat, Marine aquaculture (2010)
2.4	Blue biotechnology	0	0	0	
2.5	Agriculture on saline soils	0	0	0	The Saline and Sodic Soils Map. Joint Research Centre
3. Energy and raw materials					
3.1	Offshore oil and gas	0	0	0	
3.2	Offshore wind	0,	0	0	European Wind Energy Association (EWEA)(2013)
3.3	Ocean renewable energy	0	0	0	
3.4	Carbon capture and storage	0	0	0	
3.5	Aggregates mining (sand, gravel, etc.)	0	0	0	http://www.uepg.eu/statistics/estimates-of-production-data (2010)
3.6	Marine minerals mining	0	0	0	EMTAK (2010)
3.7	Securing fresh water supply (desalination)	0	0	0	
4. Leisure, working and living					
4.1	Coastal tourism	-10,20	-12,36	-11,28	Eurostat (2010)
4.2	Yachting and marinas	12,75	-20,61	-3,93	Eurostat (2010)
4.3	Cruise tourism	-13,96	-6,16	-10,06	Eurostat (2010)
5. Coastal protection					
5.1 – 5.2	Coastal protection	N/A	N/A	N/A	
5.3	Protection of habitats	-18,75	-19,25	-19,00	Eurostat 2011
6. Maritime monitoring and surveillance					
6.1	Traceability and security of goods supply chains	N/A	N/A	N/A	Estonian Public Service 2010, 2008 Riigiteataja 2010, 2008
6.2	Prevent and protect against illegal movement of people and goods	N/A	N/A	N/A	Estonian Public Service 2010, 2008 Riigiteataja 2010, 2008
6.3	Environmental monitoring	0	0	N/A	Estonian Public Service 2010, 2008 Riigiteataja 2010,2008

3. 7 maritime economic activities with most future potential: indicator scores for activities

INDICATOR	DEFINITION / GUIDING QUESTIONS
Innovativeness	To what extend is the given MEA driven by constant improvements and innovation? Are there significant investments currently or foreseen in the near future in R&D for this MEA in the MS?
Competitiveness	This indicator assesses the position of a given MEA of a MS in the EU/international market. Furthermore, competitiveness is assessed also by comparing the activity of a given country to the same activities of other countries in the same area/sea basin.
Employment	Will the given MEA generate new jobs in the near future? Is the given MEA labour or technology intensive? Does it generate qualified jobs and/or attractive, long-term employment for the given regional labour force?
Policy relevance	Is the given MEA addressed by current or upcoming policy initiatives or regulatory activities in the given MS, especially taking into account EU 2020 ambitions? To what extend is the given MEA influenced by these developments?
Spill-over effects	What impact does the given MEA have on other (including non-maritime) economic activities within the MS?
(Environmental) Sustainability	To what extend is the given MEA in the respective MS influenced by current or upcoming environmental regulation or depends on a good status of the environment? Does the sector have the necessary adaptive capacity?

Maritime Economic Activity		Innovativeness	Competitiveness	Employment	Policy relevance	Spill-over effects	Sustainability	Overall score
0. Other sectors	0.1 Shipbuilding (excl. leisure boats) and ship repair	+	+	-	-	+	+	++
	0.2 Water projects	+	+	-	-	+	+	++
1. Maritime transport	1.1 Deep-sea shipping	+	+	+	-	+	0	++
	1.2 Short-sea shipping (incl. Ro-Ro)	+	+	+	0	+	0	++
	1.3 Passenger ferry services	0	+	0	+	+	0	0
	1.4 Inland waterway transport	0	0	0	0	0	0	0
2. Food, nutrition, health and ecosystem services	2.1 Fish for human consumption	0	+	+	-	+	+	++
	2.2 Fish for animal feeding	0	0	+	-	0	0	0
	2.3 Marine aquatic products	0	0	0	0	0	0	0
	2.4 Blue Biotechnology	0	0	0	0	0	0	0
	2.5 Agriculture on saline soils	0	0	0	0	0	0	0
3. Energy and raw materials	3.1 Offshore oil and gas	0	0	0	0	0	0	0
	3.2 Offshore wind	0	0	0	0	0	0	0
	3.3 Ocean renewable energy (wave, tidal, OTEC, thermal, biofuels, etc.)	0	0	0	0	0	0	0
	3.4 Carbon capture and storage	0	0	0	0	0	0	0
	3.5 Aggregates mining (sand, gravel, etc.)	0	0	0	0	0	0	0
	3.6 Marine minerals mining	0	0	0	0	0	0	0
	3.7 Securing fresh water supply (desalination)	0	0	0	0	0	0	0
4. Leisure, working and living	4.1 Coastal tourism	0	0	+	+	0	-	0
	4.2 Yachting and marinas	+	+	+	0	+	0	++
	4.3 Cruise tourism	0	0	+	-	+	0	0
5. Coastal protection	5.1 – 5.2 Coastal protection	0	0	0	0	0	0	0
	5.3 Protection of habitats	0	0	0	0	0	0	0
6. Maritime monitoring and surveillance	6.1 Traceability and security of goods supply chains	+	+	-	0	0	+	0
	6.2 Prevent and protect against illegal movement of people and goods	0	0	0	0	0	0	0
	6.3 Environmental monitoring	+	0	0	0	0	0	0

4. Maritime strategies

Title of the official document	Level	Responsible body	Maritime strategy concerned	Kind of strategy document / Publishing date	URL
Estonian Maritime Policy 2012-2020	National	Estonian Ministry of Economic Affairs and Communication	Development of the Estonian maritime sector	Adopted by the Parliament of Estonia on 02.08.2012	http://valitsus.ee/UserFiles/valitsus/et/valitsus/arengukavad/majandus-ja-kommunikatsiooniministeerium/Eesti%20merenduspoliitika%202012-2020.pdf
Estonian Ice-breaking Policy 2006-2013	National	Ministry of Economic Affairs and Communication	Analysis of ice-breaker purchase, the need for this service in the future, etc.		http://www.riigikogu.ee/public/Riigikogu/REK/Eesti_j_murdmise_arengukava_2006-2013_2_.pdf
National Plan for Sea Pollution Control	National	Ministry of the Interior	Oil pollution control system and its development issues.	Approved by the Government, 2008	https://www.siseministeerium.ee/public/merereostust_rje_plaan.doc
Transport Development Plan 2006 2013	National	Ministry of Economic Affairs and Communication	Maritime transport infrastructure development (incl. purchasing of new ice-breaker), safety at sea, technology for sea pollution control activities, etc.	Approved by the Estonian Parliament, 24.01.2007	https://www.riigiteataja.ee/aktilisa/0000/1278/4604/12784610.pdf
Regional development strategy of Estonia 2005-2015	National	Ministry of the Interior	Regional development, incl. the coastal regions development trends and activities.	Approved by the Government, 19.05.200?	https://www.siseministeerium.ee/public/EESTI_REGIONAALARENGU_STRATEEGIA_2005___2015.doc
Estonian Fisheries Strategy 2007-2013	National	Ministry of Agriculture of the Republic of Estonia	Increasing the income of fishermen, balancing fishing possibilities and capacities (incl. ports and fleet development), developing fish farming.	Approved by the Government, 01.03.2007	http://www.agri.ee/public/juurkataloog/EKS_2007-2013_VV_heakskiit.pdf
Estonian National Tourism Development Plan 2007-2013	National	Ministry of Economic Affairs and Communication	The main aim is to secure the competitive and sustainable development of Estonian tourism sector.	Approved by the Estonian Parliament, 22.11.2006	https://www.riigiteataja.ee/akt/12755212
Estonian National Strategy on Sustainable Development	National	Ministry of Environment	An integral conception is clearly focused on sustainability of long-term development of the Estonian state and society, incl. ecological balance and activities at Baltic sea.	Approved by the Estonian Parliament in September 2005	https://www.riigiteataja.ee/akt/940717
Environmental Strategy 2030	National	Ministry of Environment	Specifies long-term goals in the areas of waste and pollution load reduction, sustainable use of water and mineral resources, energy, transport, fisheries, and preservation of nature diversity.	Adopted by the Parliament of Estonia on 14.02.2007	http://www.envir.ee/orb.aw/class=file/action=preview/id=1019328/Eesti+keskkonnastrateegia.pdf
National Spatial Plan – Estonia 2030+	National	Estonian Ministry of the Interior	Establishes bases for shaping settlement, mobility, national technical infrastructure and regional development; also the possible locations for offshore wind farms.	Order No 368 of the Government of the Republic, 30.08.2012	http://valitsus.ee/UserFiles/valitsus/et/valitsus/arengukavad/siseministeerium/URP%20EESTI%202030.pdf
National Development Plan of the	National	Ministry of Economic Affairs and	Define the development directions of Estonian power engineering, incl.	Approved by the Government, 01.03.2009	http://www.mkm.ee/public/ENMAK.pdf

Energy Sector until 2020		Communication	new energy sources.		
Development Plan of the Estonian Electricity Sector until 2018	National	Ministry of Economic Affairs and Communication	The goal is to increase the proportion of other sources of energy, incl. offshore wind farms development.	Approved by the Government, 01.03.2009	https://valitsus.ee/UserFiles/valitsus/et/valitsus/arengukavad/majandus-ja-kommunikatsiooniministeerium/Eesti_elektrimajanduse_arengukava.pdf
National Strategic Reference Framework 2007-2013	National	Ministry of Finance	Gives a comprehensive overview of the plan for using European funds. One of the development areas is better connection to the world, incl. development of sea connections.	Adopted by the Parliament of Estonia, 2006	http://www.teaduspark.ee/UserFiles/File/struktuurivahendite%20strateegia%202013.pdf
Estonian Higher Education Strategy 2006-2015	National	Minister of Education and Research	The objectives of the strategy apply also to the maritime (related) education.	Adopted by the Parliament of Estonia, 08.11.2006	https://www.riigiteataja.ee/akt/12752949
Development Plan for the Estonian Vocational Education and Training System 2009-2013	National	Minister of Education and Research	Make vocational education closer to real life and society's needs through good cooperation with social partners in place, incl. entrepreneurial clusters.	Approved by the Government, 11.09.2009	www.hm.ee/index.php?popup=download&id=9381
Estonian Research and Development and Innovation Strategy 2007-2013	National	Minister of Education and Research	The main objectives: competitive quality and increased intensity of research and development, innovative entrepreneurship creating new value in the global economy, innovation friendly society aimed at long-term development.	Adopted by the Parliament of Estonia, 07.02.2007	www.hm.ee/index.php?popup=download&id=5771