

# Study on Blue Growth, Maritime Policy and the EU Strategy for the Baltic Sea Region

CONTRACT NUMBER  
MARE/2012/07 - Ref. No 1



## *Executive Summary*

*December 2013*

This study was carried out by the following members of



**COGEA s.r.l.**  
Rome - ITALY  
[www.cogea.it](http://www.cogea.it)

**Leading company of EUNETMAR**

Via Po, 102, 00198 Roma

Tel: +39 06 85 37 351

e-mail: [eunetmar@cogea.it](mailto:eunetmar@cogea.it)



**AND International.**  
Paris - FRANCE  
[www.and-international.com](http://www.and-international.com)



**Eurofish International  
Organisation**  
Copenhagen – Denmark  
<http://www.eurofish.dk/>

A contribution to the study was also provided by :



**s.Pro GmbH**  
Berlin - GERMANY  
[www.sustainable-projects.eu](http://www.sustainable-projects.eu)

**Disclaimer:**

---

This study reflects the opinions and findings of the consultants and in no way reflects or includes views of the European Union and its Member States or any of the European Union institutions.

## 1. Introduction

The “Study on Blue Growth, Maritime Policy and the EU Strategy for the Baltic Sea Region” aims to identify the potential for Blue Growth in each of the EU Member States (MS) of the Baltic Sea Region (BSR) and at sea basin level. It also assesses the contribution and effectiveness of maritime actions as set out in the current EU Strategy for the Baltic Sea Region (EUSBSR) in implementing the EU Integrated Maritime Policy (EU IMP) in general and the Blue Growth potential identified in particular.

Based on these assessments and analyses recommendations are provided for how to support Blue Growth within each Baltic member state, across the sea-basin and within the context of the EUSBSR taking into account opportunities arising within the next programming period.

The methodology of analysis applied throughout the study follows the approach that was developed for all blue growth studies currently undertaken on behalf of DG Mare for all European sea basins. For this purpose seven maritime functions have been defined, each of them composed of several maritime economic activities (MEA), for a total of 29 MEAs.

Table Functions / MEAs<sup>1</sup>

0. Other sectors	1. Maritime Transport	2. Food, nutrition, health and ecosystem services	3. Energy and raw materials	4. Leisure, working and living	5. Coastal protection	6. Maritime monitoring and surveillance
0.1 Shipbuilding and ship repair 0.2 Water projects	1.1 Deep-sea shipping 1.2 Short-sea shipping 1.3 Passenger Ferry services 1.4 Inland waterway transport	2.1 Fish for human consumption 2.2 Fish for animal feeding 2.3 Marine aquaculture 2.4 Blue biotechnology 2.5 Agriculture on saline soils	3.1 Offshore oil and gas 3.2 Offshore wind 3.3 Ocean renewable energy 3.4 Carbon capture and storage 3.5 Aggregates mining 3.6 Marine minerals mining 3.7 Securing fresh water supply	4.1 Coastal tourism 4.2 Yachting and marinas 4.3 Cruise tourism 4.4 Working 4.5 Living	5.1 Protection against flooding and erosion 5.2 Prevent salt water intrusion 5.3 Protection of habitats	6.1 Traceability and security of goods supply chains 6.2 Prevent and protect against illegal movement of people and goods 6.3 Environmental monitoring

Data for each of the BSR EU Member States was drawn from Eurostat for the years 2008-2010 (latest available year) in order to perform a quantitative analysis of the size and recent growth of the MEAs. The qualitative assessment is based on six defined Blue Growth indicators, i.e. innovativeness, competitiveness, employment, policy relevance, spill-over effects and sustainability. The scoring takes into account recent trends, policy papers, strengths and weaknesses both at country as well as transnational / EU level.

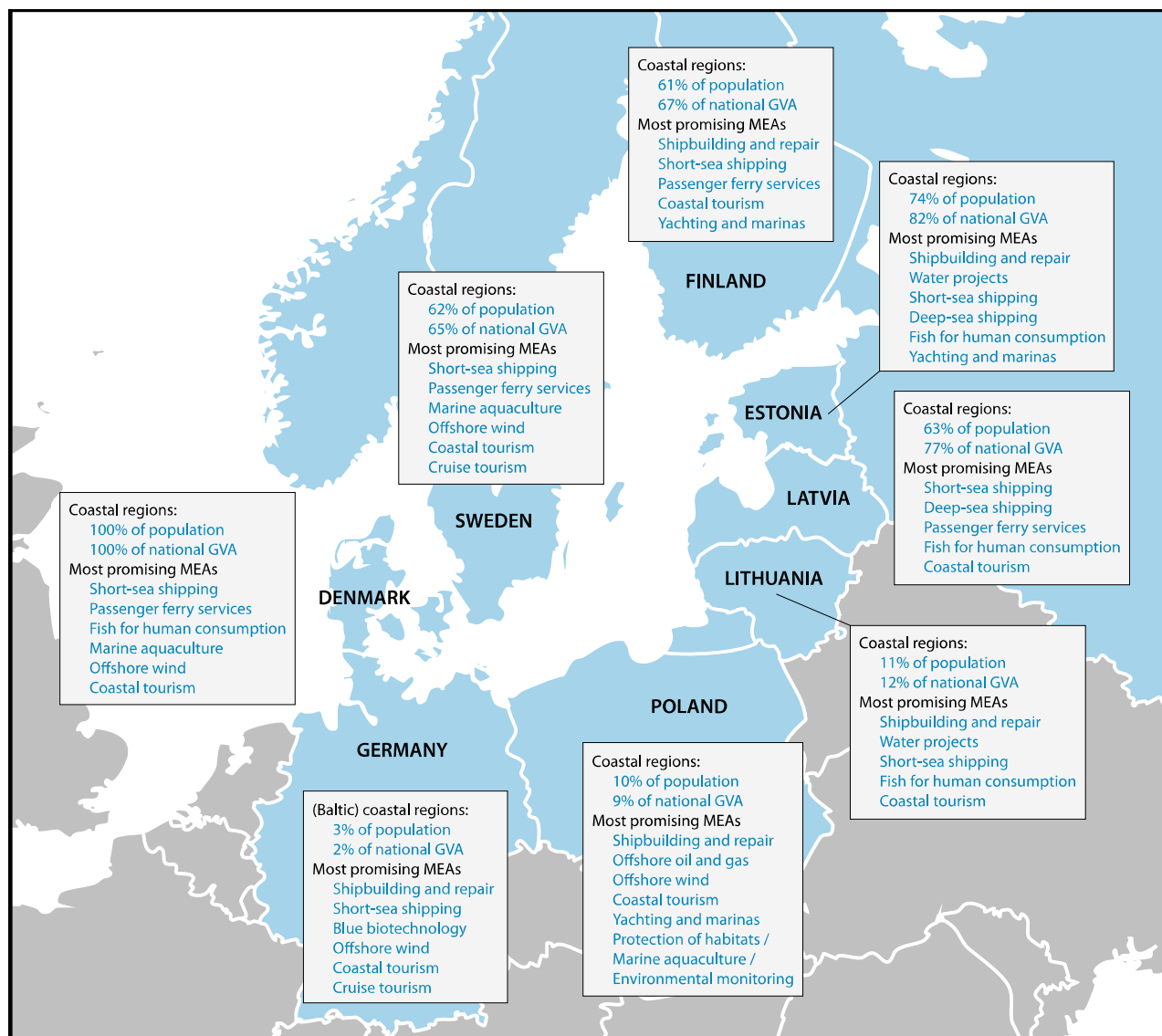
For the analysis at sea-basin level this data was aggregated to show similarities and differences between the BSR countries and identify potential areas for sea basin cooperation.

This was matched with a systematic assessment of 84 actions and 174 flagship projects from the revised EUSBSR version (February 2013) in terms of their relevance for the various MEAs and Blue Growth in particular within the BSR. In addition, results from a survey carried out among the EUSBSR area / action coordinators and National Contact Points were taken into account as well as interviews carried out with selected stakeholders.

<sup>1</sup>It should be noted that MEA 2.1. “Fish for human consumption” does not only include fish catching in the given sea basin/country, but also fish processing and sale activities within the given country (incl. fish from other sea basins). On the other hand, MEA Marine aquaculture only relates to the farming of marine aquatic organisms and neither includes freshwater fish aquaculture nor the processing or sale of aquaculture products.

The study is firmly based on economic, political and social reality rather than utopia. The Blue Growth potentials, which were laid out with a time horizon of 2020, are therefore based on given and realistically possible near future developments. Nevertheless, it should be understood that the assessment always assumes that the appropriate set of political decisions, investments and research and development will be made by a coherent interplay among the multitude of stakeholders involved in Blue Growth within the BSR.

## 2. Country Analysis



No point in **Denmark** is further than 50 km from the sea, which means the entire country can be considered as maritime and 100% of its population (some 5,6 million people) can be said to live in maritime regions. Denmark borders both the Baltic Sea and North Sea. The largest MEA is short-sea shipping followed by coastal tourism, fish for human consumption and passenger ferry services (offshore oil and gas, which is by far the biggest MEA, relates exclusively to the North Sea and is therefore not listed here). Among the fastest growing MEAs are marine aquaculture, protection of habitats and aggregates mining. The most promising MEAs in Denmark are short-sea shipping, passenger ferry services, fish for human consumption, marine aquaculture, offshore wind and coastal tourism.

**Sweden** has the largest coastline of all EU-22 coastal MS, with a total length of 21.591 km (mostly Baltic - only a small part of West Sweden has access to the North Sea). Furthermore, Sweden has 98.400 marine islands. About 62% of the country's population (some 5,9 million people) lives in coastal areas. The largest

MEAs are coastal tourism, fish for human consumption, short-sea shipping and passenger ferry services (in this order). Among the fastest growing MEAs are water projects, cruise tourism and inland waterway transport. The most promising MEAs in Sweden are short-sea shipping, passenger ferry services, marine aquaculture, offshore wind, coastal tourism and cruise tourism.

Similar are the features of **Finland**: it has a very long coastline (19.463 km), roughly 2/3 of the national GVA is generated in coastal regions and about 61% of the population lives there, though this amounts only to some 3,3 million people, making Finland is considerably smaller. The largest MEA is passenger ferry services, followed by coastal tourism, short-sea shipping, shipbuilding and repair and fish for human consumption, all of which have the same size. Among the fastest growing MEAs, fish for human consumption and fish for animal feeding stand out. The most promising MEAs in Finland are shipbuilding and ship repair, short-sea shipping, passenger ferry services, coastal tourism and yachting and marinas.

The smallest MS in the Baltic Sea Region in terms of overall population is **Estonia**. However, it has a relatively long coastline and 74% of the population lives in coastal regions (some 1 million people). Coastal regions account for 82,5 % of the nation's GVA (2010) and the country has numerous peninsulas and bays as well as 1.500 islands. The largest MEAs are shipbuilding and repair, water projects, fish for human consumption and coastal tourism. The only growing MEA between 2008 and 2010 was deep-sea shipping. The most promising MEAs in Estonia are shipbuilding and ship repair, water projects, short-sea shipping, deep-sea shipping, fish for human consumption and yachting and marinas.

**Latvia** has more inhabitants than Estonia but its coastline is considerably shorter. About 63% of the country's population lives in coastal areas (some 1,3 million people). These areas in turn produce about 77% of the nation's total GVA. The largest MEAs are by far fish for human consumption (especially wholesale), coastal tourism and, to a lesser extent, shipbuilding and repair. As in the other Baltic States Latvia suffered much from the financial crisis and only passenger ferry services and fish for animal feeding saw some notable growth during the reference period. The most promising MEAs in Latvia are short-sea shipping, deep-sea shipping, passenger ferry services, fish for human consumption and coastal tourism.

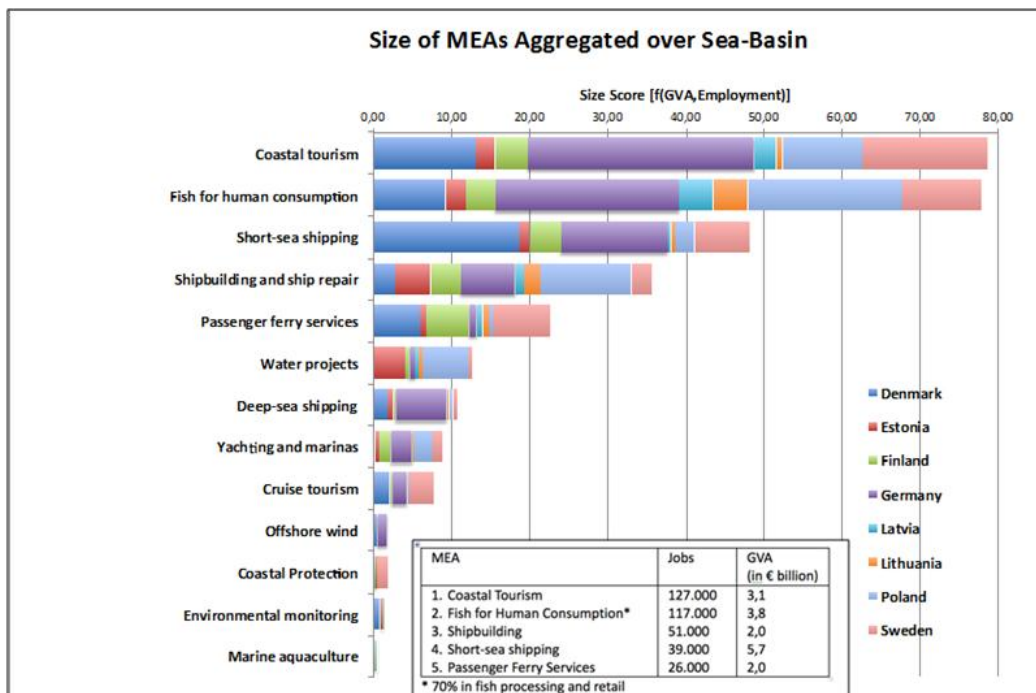
**Lithuania** is the largest of the three Baltic States (in terms of population) but has only a very short coastline measuring some 90 km. No islands belong to Lithuania. Only 11% of Lithuania's population (some 0,3 million people) lives in coastal areas, contributing to some 12% to the national GVA. Thus, in terms of its coastal dimension Lithuania can be considered as the smallest MS in the BSR. The largest MEAs are by far fish for human consumption and shipbuilding and repair. Only environmental monitoring saw some growth during the reference period. The most promising MEAs in Lithuania are shipbuilding and ship repair, water projects, short-sea shipping, fish for human consumption and coastal tourism.

**Poland** is a large country but only 10% of the population lives in coastal regions, i.e. some 4 million inhabitants. The coastal regions are responsible for about 9% of the country's national GVA. The largest MEAs are fish for human consumption (especially processing of fish), shipbuilding and repair, coastal tourism and water projects (in this order). Among the fastest growing MEAs are passenger ferry services, cruise tourism and offshore oil and gas. The most promising MEAs in Poland are shipbuilding and repair (with a focus on the latter), offshore oil and gas, offshore wind, coastal tourism, yachting and marinas and a combination of protection of habitats/marine aquaculture/environmental monitoring.

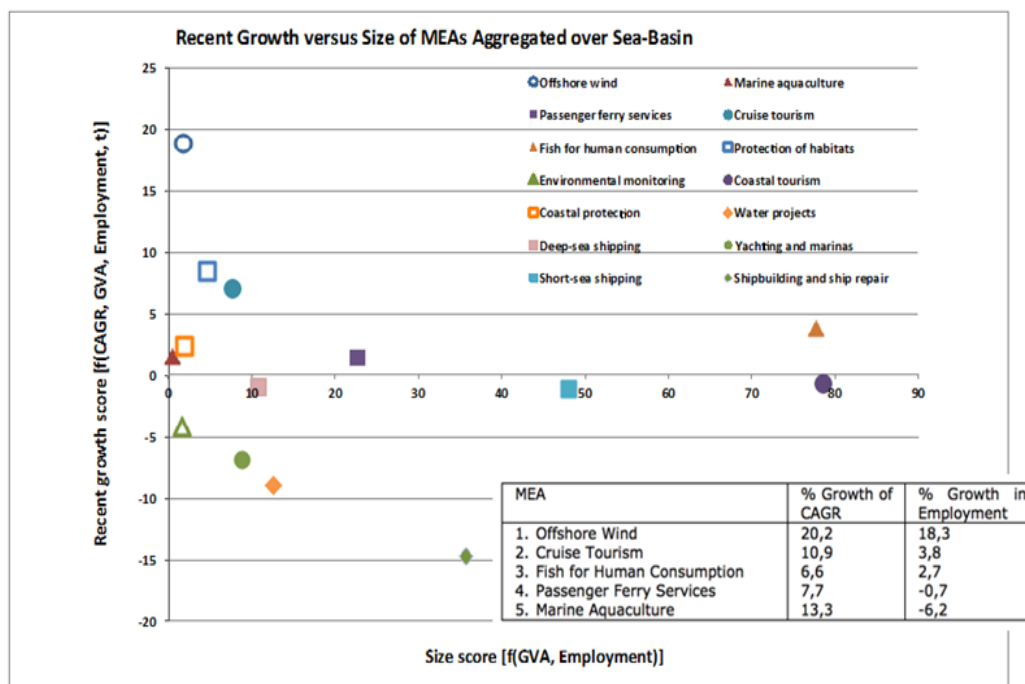
As in Denmark, **Germany** has access to two sea-basins: North and Baltic Sea. The German Baltic Sea coastal area is small in proportion to the country size and so is its relative economic importance (2.200 km of coastline and 2,2% of the national GVA). Approximately 2,8% of the German population lives in the Baltic Sea coastal region (some 2,3 million people). The largest MEAs with view to the Baltic Sea are coastal tourism and fish for human consumption and to a lesser extent short-sea shipping and shipbuilding and repair. Among the fastest growing MEAs offshore wind stands out. Fish for human consumption, cruise and coastal tourism as well as coastal protection have also seen notable growth in the reference period. With view to the Baltic Sea, the most promising MEAs in Germany are shipbuilding and repair, short-sea shipping, blue biotechnology, offshore wind, coastal tourism and yachting and marinas, and cruise tourism.

### 3. Sea-Basin Analysis and Rankings

The ranking of importance attached to each MEA across the whole BSR highly depends on the perspective for analysis. Ranking lists differ substantially depending on whether employment, GVA or growth is taken as the basis of analysis or alternatively Blue Growth indicator scores, number of BSR countries involved, relevance in the current version of the EUSBSR and/or importance attached by EUSBSR stakeholders. In terms of size, the figure below shows the MEAs that stand out in view of employment and GVA.



In terms of growth generated, it should be noted that the reference years 2008-2010 were marked by a strong economic recession with repercussions also on the maritime sectors. Nevertheless, the following figure shows that some MEAs achieved quite substantial compound annual growth rates (CAGR). ^





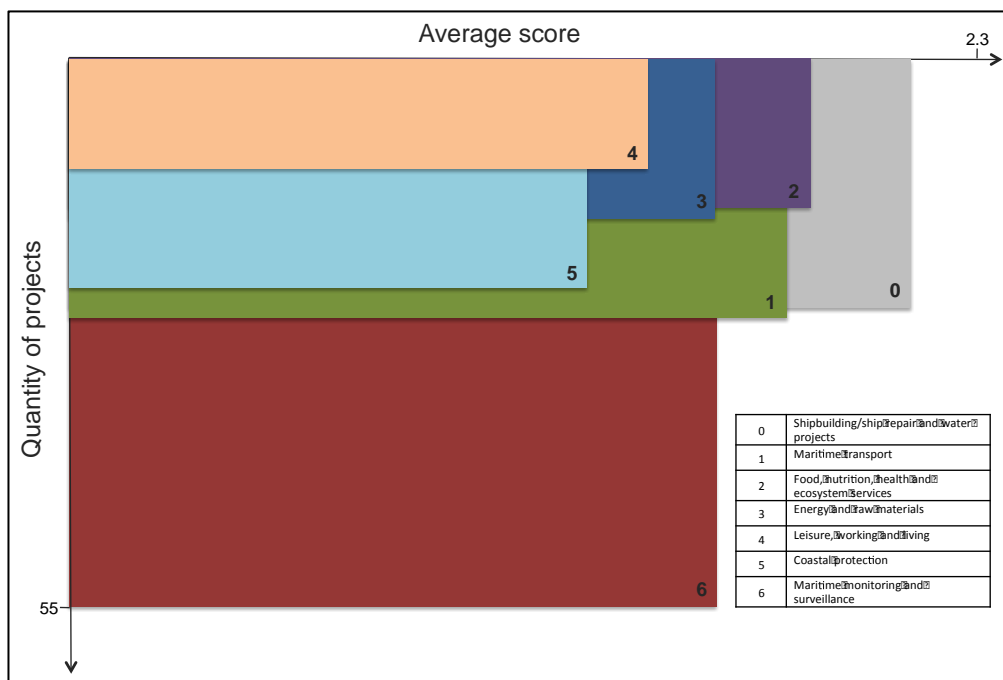
The ranking of MEAs in each Member State as concerns the six indicators identified as most relevant to express Blue Growth potential shows yet another picture, as shown in the table below. Further details about the process for this evaluation and analysis of some of the results is provided in Annex 6.

Maritime economic activity	Aggregated indicator scores for future potential for all MS							
	Innovativeness	Competitiveness	Employment	Policy relevance	Spill-over effects	Sustainability	Aggregate score for all indicators	Average score of 6 indicators
Short-sea shipping	7,0	6,0	4,5	6,0	4,0	7,0	34,5	5,7
Coastal tourism	1,0	7,0	8,0	5,0	7,0	6,0	34,0	5,7
Yachting and marinas	8,0	6,0	4,0	0,0	8,0	5,7	31,7	5,3
Environmental monitoring	7,3	0,7	3,0	7,0	3,3	7,0	28,3	4,7
Offshore wind	4,0	5,0	4,0	5,0	3,0	5,0	26,0	4,3
Traceability and security of goods supply chains	7,0	2,3	-1,0	7,0	4,0	6,0	25,3	4,2
Passenger ferry services	2,0	4,0	2,0	6,0	4,0	7,0	25,0	4,2
Cruise tourism	3,0	6,0	5,3	-1,0	6,3	4,0	23,7	3,9
Deep-sea shipping	6,0	3,0	-1,5	4,0	4,0	7,0	22,5	3,7
Shipbuilding and repair	7,0	5,3	0,0	2,0	5,0	3,0	22,3	3,7
Marine aquaculture	5,0	2,3	-0,7	5,0	4,0	5,0	20,7	3,4
Fish human consumption	3,3	3,0	0,0	6,0	3,0	4,3	19,7	3,3
Water projects	4,7	2,0	0,3	3,7	4,0	4,7	19,3	3,2
Blue biotechnology	4,0	0,7	1,3	3,0	3,0	4,0	16,0	2,7

A shortlist of 11 MEAs generated by aggregating the six MEAs selected as “most promising” by each MS based on rankings for size, growth and Blue Growth potential indicators as well as the analysis of drivers and barriers to MEA development (and selected by at least two MS) reveals the order shown below.

Maritime economic activity	Number of MS	Member States selecting MEA as most promising							
		DK	EE	FI	DE	LV	LT	PL	SE
Coastal tourism	7								
Short-sea shipping	7								
Shipbuilding and repair	5								
Offshore wind	4								
Yachting and marinas	4								
Passenger ferry services	4								
Fish human consumption	4								
Marine aquaculture	3								
Cruise tourism	2								
Deep-sea shipping	2								
Water projects	2								

The following figure portrays the relation between the number and relevance of maritime EUSBSR flagship projects grouped per maritime function (as MEA clusters). Comparing this figure to the table below it becomes evident that MEAs perceived as most important by Member States often rather underrepresented in terms of quantity / quality in the EUSBSR.



Finally, the survey undertaken among EUSBSR stakeholders regarding the importance of each MEA for generating Blue Growth in the Baltic Sea Region shows yet another ranking order, shown in the table below\*.

MEAs attributed "high importance" by all National Contact Points	MEAs attributed "high importance" by more than 80% of Priority Area Coordinators / Horizontal Action Leaders
<ul style="list-style-type: none"> <li>• Environmental monitoring</li> <li>• Coastal protection</li> <li>• Coastal tourism</li> <li>• Cruise tourism</li> <li>• Prevents / protection against illegal movements</li> <li>• Blue biotechnology</li> <li>• Marine aquaculture</li> </ul>	<ol style="list-style-type: none"> <li>1. Offshore wind</li> <li>2. Environmental monitoring</li> <li>3. Coastal protection</li> <li>4. Coastal tourism</li> <li>5. Passenger ferry services</li> <li>6. Ocean renewable energy</li> <li>7. Short-sea shipping</li> <li>8. Fish for human consumption</li> <li>9. Cruise tourism</li> <li>10. Oil and gas</li> </ol>

\*It should be noted that stakeholders filled the survey without being given study results

## 4. MEAs with Blue Growth Potential at Sea Basin Level

### 4.1 Maritime transport

#### 4.1.1 Shipbuilding (excl. leisure boats) and ship repair

With the exception of Denmark, Sweden and Latvia, this MEA was identified as "most promising" by all other BSR countries. In these countries the sector is still important in terms of employment and GVA despite decade long decline.

New environmental and safety regulations are seen as an opportunity as they match with the specialisation strategies pursued by shipyards as well as the component industry throughout the BSR, focused on technology sophisticated niche markets. Blue Growth indicator scores are therefore also high for



innovativeness, reflecting continuous R&D within the sector supported also by some BSR countries and effective maritime clusters. For these specialised markets the competitive position is also rated high. At the same time the sector is mainly hampered by lack of finance.

Indirect benefits from sea basin wide cooperation for the sector are high, as enforced joint standards will ultimately lead to increased demand for products on offer in the region. Direct interventions should focus on common R&D programmes, increased region-wide cooperation among maritime clusters as well as common incentives provided for “first-movers”.

Even though EUSBSR sub-objectives / actions should be adapted in order to better comply with the specific needs of the shipbuilding sector, the overall potential for realisation of Blue Growth potentials is rated high given the good basis for coordination, cooperation and projects within the current EUSBSR.

#### 4.1.2 Short-sea shipping

Together with coastal tourism, short-sea shipping shows the highest ranking across all categories be it in size, employment or Blue Growth potential score. It is highly important in all BSR countries, with a close interdependence with the general economic development and the anticipated growth in West-East trade. Only Poland did not mark this sector among the most promising MEAs.

Increasing costs due to the new environmental and safety regulations coupled with a lack of available financing for necessary investments are seen as the most important challenge to the sector, but at the same time serve as an important driver for the Blue Growth potential. Also supported by national maritime strategies, the sector is generally rated as well placed to take these challenges on board and turn them into a competitive advantage.

Despite the competition between countries, sea basin cooperation will be key to realising the Blue Growth potential for the sector as it creates numerous cost efficiencies and ensures a level playing field by e.g. i) creating a coherent modern (LNG) port network, ii) introducing common standards among ports, effective compliance checks and risk assessments as well as iii) incentives to trigger the necessary investments.

Shipping is already well reflected in the EUSBSR, with dedicated coordination, significant number and relevance of actions/projects and a good mixture of funding programmes and actors including the private sector. Thus, a good basis has already been created on which the BSR can build. However, a key success factor for realising the future Blue Growth potential within this sector will be to provide the necessary financial and regulatory incentives to move from conceptual to implementation stage (i.e. LNG network), which will compensate for initially higher costs.

## 4.2 Blue energy

### 4.2.1 Offshore wind energy

Even though still relatively small in terms of overall size, offshore wind energy scored very high in terms of “potential” and related “promise” given the enormous relative growth generated within the sector during the last years. The assessment for this MEA shows, however, a strong West-East divide with a focus on Denmark, Germany and Sweden as the only countries with favourable national energy policies for offshore wind energy leading to substantial current and near future planned deployment of offshore wind park capacities not only in the Baltic but also in the North Sea. The industry and related clusters are very well positioned in these countries not only for energy production but also turbine and ship / platform building for non-BSR markets.

Added value may be created through smart cross-border grid solutions, which allow wind parks to be connected to more than one market and lead to better utilisation of the fluctuating electricity production from wind by applying a cross-country energy mix. In the long run such smart grids may also create conditions favourable enough for installation of offshore wind capacities in countries (i.e. Finland) where from a national energy mix point of view offshore wind is currently not attractive enough. This requires not only technical but also joint financial, regulatory and planning solutions especially in view of energy

markets. Increased sea basin cooperation may therefore actually serve as a trigger for establishing this MEA also in those BSR countries where it is currently only of little relevance.

Despite the DK-DE flagship project “Demonstration of Coordinated Offshore Wind Farm Connection Solution at Kriegers’ Flak”, offshore wind energy does not feature prominently in the current EUSBSR, as there is so far no dedicated action or coordination point for offshore wind energy. On the other hand, numerous projects / studies undertaken outside the EUSBSR framework as well as increased efforts in creating a transnational MSP governance structure (HA Spatial Planning) serve as indicators that the institutional capacity for such a sea-basin Blue Growth initiative exists.

## 4.3 Tourism

### 4.3.1 Coastal tourism

In all eight BSR Member States coastal tourism rates among the seven largest MEAs. In Germany and Sweden it is the largest and shows positive growth figures even between 2008-2010, when other countries experienced a decline. The 10 year growth trend is positive across the whole BSR. With the exception of Estonia, all BSR countries include coastal tourism in their list of six “most promising” MEAs. The sector rates high in terms of employment, spill-over effects and competitiveness compared to other EU touristic areas. However, the lack of innovativeness and the sector’s fragmentation into a lot of micro-entities is seen as a major weakness.

The vast majority of tourists come from the Baltic Sea region and even the given country itself. Thus, competition prevails over cooperation among the various actors. Sea basin wide approaches could, however, create added value for all Member States when focused on improved accessibility via integrated connections as well as joint efforts to increase the number of non-BSR tourists visiting the region. The cruise sector may serve as a sample for such efforts both for coastal tourism as well as marinas and yachting (see below).

By introducing a dedicated PA Tourism the MEA has already been upgraded within the revised EUSBSR and actions / planned flagships generally correspond with the assessment of the study.

### 4.3.2 Yachting and marinas

Yachting and marinas is an emerging MEA in the BSR that has substantially improved its potential for future growth in recent years. Whereas in Poland the weight of the MEA mainly derives from a good position in building leisure and sport boats (thus more related to the shipbuilding sector), the MEA can generally build on the genuine attractiveness of Baltic sailing routes, which has recently increased due to the development of new marinas. The sector is assessed very positively across all BSR countries in view of its innovativeness and spill-over effects. At the same time the MEA suffers from a lack of policy recognition both at the national as well as transnational levels and an inadequate public transport infrastructure development from marinas into the hinterland.

The “tourism” component of this MEA calls for transboundary cooperation, as substantial added value can be created by developing Baltic Sea wide sailing products not only for domestic but also international target groups (win-win situation). To this end, a joint marina network, standardized equipment and services in marinas, etc. should be developed.

The MEA is currently not covered at all within the EUSBSR. A joint action among PA Tourism and PA Ship may fill this gap.

### 4.3.3 Cruise tourism

Even though cruise tourism only rates among the largest MEAs in Sweden, it is noteworthy in view of its positive growth figures in five of eight BSR countries (resulting in a 10,9% increase in GVA on the whole sea basin). More recent figures are also positive with e.g. passenger numbers increasing by 5,6% in 2012 compared to 2011. The sector has a competitive edge in relation to other European sea-basins and also scores highly in terms of spill-over effects. However, growth in this MEA has only limited effects on

employment and is seen to lack in innovativeness and public engagement. Apart from the general challenges concerning the shipping sector in view of upcoming regulations, specific growth barriers are associated to the limited number of ports suitable for the ever-growing size of cruise vessels. Thus, only in Germany and Sweden is cruise tourism rated among the most promising MEAs, with both countries featuring more than one attractive destination point.

Apart from being part of the “shipping sector” in general, the cruise sector is specifically dependent on good sea-basin cooperation. The industry is therefore already well organised within the BSR-wide thematic cluster “Cruise Baltic”, which brings together 10 countries and 27 destinations. Specific additional growth potential could be realised by diversifying into cruise routes for smaller vessels.

Within the current EUSBSR, however, only one (small, purely German) flagship project is dedicated to cruise tourism. A cooperative action between PA Tourism and PA Ship may be created in order to address specific needs of the sector.

## 4.4 Food, nutrition, health and ecosystem services

### 4.4.1 Fish for human consumption

Fisheries but especially fish processing and sales are an important MEA in all BSR countries and rate high both in terms of employment and GVA created as well as growth generated. The value of catches and efficiency of fishing and fish processing companies has been steadily increasing. The sector is of particular importance for the Baltic States and Denmark. It features among the most promising MEAs in these four countries especially due to the fish processing component and a growing demand from the Russian market.

Fish catching is regulated at European scale and thus sea basin cooperation is traditionally focused on the implementation, control and enforcement of the European Common Fisheries Policy. In this context there are also strong linkages with the other three IMP areas, with maritime surveillance and monitoring as well as maritime spatial planning being important elements for ensuring the health of the marine ecosystem and its fish stocks.

This component is well represented within the EUSBSR, steered by the high-level working group BaltFish, which works with the traditional transnational organisations BS RAC, ICES and HELCOM. On the other hand sea basin activities related to fish processing and retailing, which actually make the bulk of the economic size of this MEA and diversification efforts into other related sectors do not feature at all.

### 4.4.2 Marine aquaculture

The economic scale of marine aquaculture is currently extremely limited throughout all BSR countries due to limited number of sites suitable for open net cage systems, which have so far been the dominant cultivation form. Given new opportunities deriving from technological developments the sector has, however, received positive scores in view of Blue Growth potential. In fact production in Denmark and Sweden has recently substantially picked up and the sector received good innovation and sustainability scores, reflecting the fact that BSR companies increasingly reap the fruit from technology advances (i.e. in recirculating aquaculture systems) made as a response to environmental concerns. Also policy developments are scored positively, reflecting the increasing recognition of marine aquaculture as a potential Blue Growth player.

Substantial added-value can be generated through increased sea basin cooperation in BSR specific joint R&D, pilot sites and feasibility studies as well as interpretation of the legal framework (e.g. nutrient calculations). Also efforts in image improvement and marketing of BSR aquaculture products (including certification / labelling) may be more effective when undertaken at sea basin rather than national or regional level. Currently the sector lacks a sea-basin wide voice (network), as it is not integrated into sea basin cooperation for fishery.

Within the EUSBSR a clear target and indicator has been defined that supports the development of aquaculture. Current flagship projects featuring aquaculture are all about to come to their funding end, but together with new funding opportunities create a good basis for further advances in developing the Blue

Growth potential of this sector. However, the transnational institutional basis, especially in view of policy support as well as the integration of the private sector have to be improved.

#### 4.4.3 Blue biotechnology

The blue biotechnology industry in the BSR is still nascent and actually no statistical economic data could be associated with this MEA. In Germany the MEA was nevertheless placed among the “most promising” MEAs and in Poland the marine aquaculture assessment is highly interlinked with this MEA. The sector also ranked remarkably high in the “importance score” among EUSBSR stakeholders. The MEA is seen as relatively well positioned within the BSR given the availability of relevant R&D institutions and recent advances made in strengthening cooperation efforts beyond single standing projects. Schleswig-Holstein stands out with its recently adopted “Masterplan for Marine Biotechnology” and as flagship leader within the “SUBMARINER network”, but Denmark has also set a strategic direction for the nation’s blue biotechnology industry.

An integrated sea basin wide long-term development strategy firmly based on regional priority needs as well as respective country strengths could go a long way to increase the efficiency and effectiveness of so far individual research efforts by mobilising scattered human capital, connecting dispersed research infrastructure and enhancing technology and knowledge transfer. A key success factor will lie in finding the optimal mix between continuous and project-based research efforts as well as increasing the leverage of the private sector as potential end user in blue biotechnology research.

Within the EUSBSR Blue Biotechnology features as a sub-element of the flagship project “SUBMARINER network” under the Action “Establish a common BSR Innovation Strategy”.

### 4.5 Support functions to Blue Growth

#### 4.5.1 Environmental monitoring / Marine Knowledge 2020

Even though environmental monitoring does not rank highly in terms of economic size, it scored highly for Blue Growth indicators and was also at the top of the list among EUSBSR stakeholders. It is also by far the most important sector in terms of the number of related actions / projects within the current EUSBSR. In fact marine data is important for Blue Growth in two ways: on one hand it is a crucial tool to ensure the safe and sustainable use of marine resources and opening the path towards new solutions and thus serves as a facilitator for Blue Growth. On the other hand marine data collection is a Blue Growth sector in its own right: even though often perceived as a public sector investment, large segments of marine data are already collected by the private sector as well.

Growth within this MEA is not only related to increased monitoring needs to ensure Member State commitments to achieving Good Environmental Status, but there is also a growing demand from the private sector for marine data and analysis products to support infrastructure projects (e.g. offshore wind) but also other maritime economic activities (i.e. aquaculture, shipping). The added value of sea basin wide solutions is evident within the sector both in terms of efficiency as well as knowledge gains. But despite numerous ongoing initiatives in this direction much more needs to be done in order to move from data collection to more efficient target-oriented information sharing networks and decision-making tools, where not only environmental but also economic and social data are transposed into marine knowledge with relevance to Blue Growth. This has to be integrated into regular efforts with projects being mainly useful for testing and establishing innovative, improved systems.

#### 4.5.2 Maritime Spatial Planning

MSP is not defined as a separate Maritime Economic Activity but requires discussion, as it is not only an important element of the IMP agenda but also serves as a facilitator for all MEAs at regional, national as well as transnational levels given the fact that all of them call for their share of the marine space and/or depend on efficient connections both across national boundaries as well as between sea and land.

Spatial allocations related to the key pan-Baltic topics, e.g. a healthy marine environment, a coherent pan-Baltic energy policy, safe, clean and efficient transport as well as sustainable fisheries and aquaculture

should be based on Baltic Sea wide environmental as well as socio-economic analyses. And planners should think connectively in terms of linear infrastructure, corridors and patches, be it in the form of shipping lanes, bundled cables and grid connections or blue corridors. Given the special characteristics of the Baltic Sea itself and the close proximity of Baltic Sea countries, sea basin wide MSP efforts are of particular importance in the BSR and the region has actually for the last decade already acted a frontrunner in that regard.

This is also reflected by the importance attached to MSP within the EUSBSR. The set up of a coherent transnational MSP system throughout the BSR is one of the targets and the HA Spatial Planning is devoted to MSP. The current flagship project “PartiSEApate” is beginning to make the connections to the various Blue Growth sectors (e.g. shipping, offshore energy, fishery, aquaculture) as well as support functions (research, data) and most importantly will develop the framework for a transboundary MSP governance system that shall form the basis for future activities to be defined.

## 5. Strengthening Blue Growth within the EUSBSR Governance System

### 5.1 Current coverage of Blue Growth Issues under the current EUSBSR

Since the Baltic Sea is the unifying element among states of the Baltic Sea Region, the collected data from the revised EUSBSR (Feb 2013) unsurprisingly revealed a considerable maritime dimension in the EUSBSR. About 32% of all actions have a direct maritime aspect and 47% of all 174 flagship projects are currently highly or partly maritime.

Almost all Priority Areas (PAs) / Horizontal Actions (HAs) have some kind of maritime angle, but the distribution of maritime flagship projects across objectives is unbalanced, with a diminishing importance attached to maritime issues from PAs mainly associated with the “Save the sea” objective towards PAs associated with “Increase prosperity”. And “highly maritime” does not automatically mean high relevance for Blue Growth. In fact the majority of EUSBSR maritime flagship projects are at their core related to environmental concerns and are not directly associated with an objective to generate Blue Growth. Blue Growth often features more as a “side-effect”, but is not automatically an integral part and parcel of actions.

Nevertheless, with the exception of yachting and marinas, all other maritime economic areas are already covered by the current EUSBSR in one way or another and a good set of prominent projects could be identified, which may serve as a basis for future activities. This is despite the fact that Blue Growth was only introduced as a concept quite recently.

### 5.2 Strengthening Blue Growth issues under the current EUSBSR governance

A survey among stakeholders of the EUSBSR (PA Coordinators and HA Leaders as well as National Contact Points) lead to the identification of the following four key success factors to further strengthen Blue Growth issues under the current EUSBSR Governance:

- **Raise Awareness:** Show concrete stories of what Blue Growth actually means by building on the range of already existing prominent projects as well as potentially currently still “hidden” success stories (esp. within regulatory projects). Raise awareness among policy makers and decision makers at all levels concerning Blue Growth potentials within the BSR and discuss required new actions to be taken. Urge industry and the financial sector to get more actively involved in developing and raising the profile of Blue Growth issues within the EUSBSR.
- **Improve EUSBSR Formulations:** IMP / Blue Growth should become a cross-cutting issue throughout all maritime oriented PAs / HAs. Formulation of some EUSBSR parts should be improved so as to better reflect Blue Growth issues. Sub-objectives, actions and indicators should not focus on one of the three overall objectives only, but where appropriate should include aspects related to the other two objectives.

- **Combine various funding lines:** Alignment and availability of relevant funding lines as well as creating incentives for investments is seen as a key condition for the development and realisation of future Blue Growth Flagship Projects. The continuous availability of seed money is seen in the short term as a prime instrument for increasing the number of Blue Growth Flagship projects. Continuous support should also be available to enable the use of combinations of various funding instruments and to achieve better access and integration of private funding sources and company activities into Blue Growth initiatives.
- **Create a dedicated Blue Growth support facility** for EUSBSR Coordinators and/or flagship project leader to provide assistance in further developing Blue Growth topics, ensure a coherent underlying framework, provide relevant contacts and foster cooperation, demonstrate success as well as initiate and provide support in the running of flagship projects. Such an initiative could possibly take the form of a BSR wide flagship project itself aiming at facilitating the coordination of maritime and Blue Growth activities within the EUSBSR.