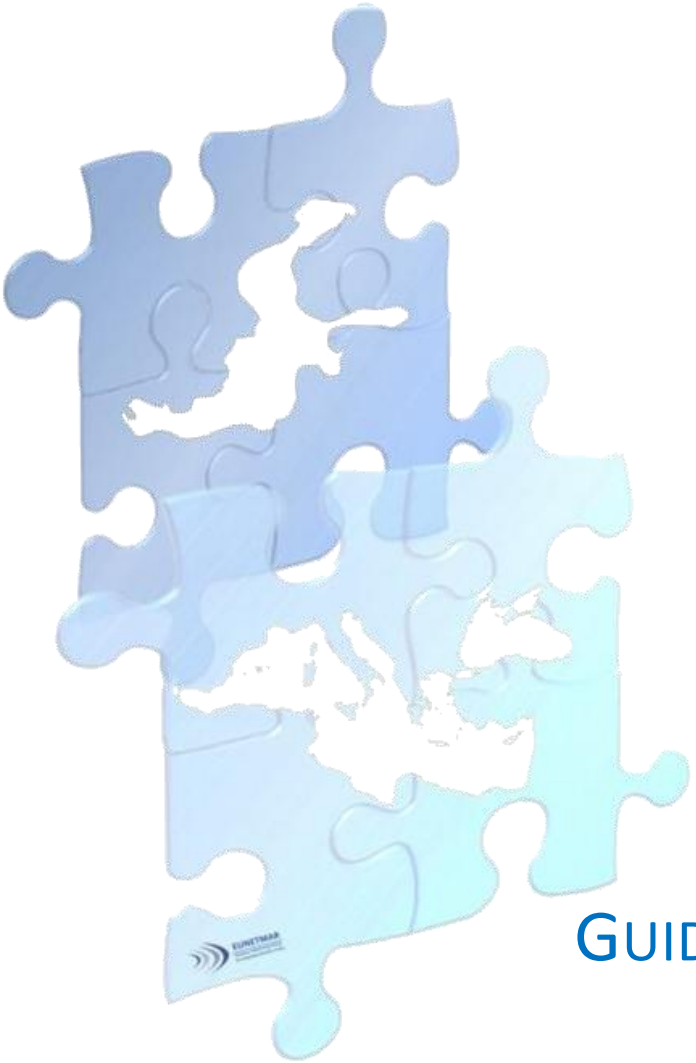
European Commission

Studies to support the development of sea basin cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea



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GUIDE TO THE COUNTRY FICHE

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EUNETMAR
European Networking Group for Integrated Maritime Policy

COGEA
Consulenti per la Gestione Aziendale

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This publication is available at the following link:

http://www.cogeaspa.it/blue-growth-study/country-fiches/?lang=en

1. Background and objectives of ongoing "Blue Growth studies"

Further to a study on Blue Growth for the European Commission[1]focused on the "value chain analysis" of marine and maritime activities (MEAs), deemed relevant for the blue economy of the EU as a whole, a number of follow-up studies[2]has been requested by the European Commission with the specific objective of identifying blue growth needs within the 5 sea basins in a homogeneous manner .

The "value-chain approach" makes it possible to put a "core activity" into the context of an array of upstream and downstream activities correlated to it. For instance, "short-sea shipping" also includes all incidental services linked to it (cargo handling, intermediaries activities, warehousing and storage, etc.). Despite some limitations, the adoption of the value chain approach enabled us to reach a result as close to reality as possible.

In order to map the role of each activity in each Country, two indicators have been used. The first one, *Gross value added at factor costs (GVA)*, provides an indication of the economic impact of each activity in a given Country. The second one, *Number of persons employed(EMP)*, is a key indicator representing the social impact of maritime activities in each country.

This coherent methodology and exact definitions makes it possible to directly compare MS and/or sea basins.

It is important to stress that these studies are part of an EU-wide exercise involving several Units of DG MARE that are assessing the state of play of the blue economy in all European sea basins.

To achieve the aforementioned objective, an assessment of the state of play and growth potential of the maritime economy in each EU Member State (MS) and candidate/potential candidate country has been requested by the European Commission.

This information is presented homogeneously in a set of Country Fiches within each study.

[1]"Blue Growth: Scenarios and Drivers for Sustainable Growth from the Oceans, Seas and Coasts" (commissioned by DG MARE in 2012 and developed by Ecorys)

[2] Studies currently ongoing focus on : Atlantic and North sea (committed to ECORYS consortium);Baltic sea; Mediterranean and Black sea (committed to EUNETMAR consortium)

2. Data sources and time span of quantitative analyses

All quantitative analyses have been developed adopting a solid and reliable set of sources, seeking to use single sources common to all countries as much as possible. As a result the sources selected have been the following:

It has also been agreed to give priority to figures provided by official and national sources, and to use the time series 2008-2009-2010 as a reference, given that the majority of official sources was updated to 2010 at the time of the study.

However, there are still great differences between countries when it comes to data availability since it is very difficult to find homogenous and complete data sets in non-EU MSs, due to different reporting obligations.

Since the original methodology had been conceived for different purposes, a further adaptation has been agreed between the experts of the European Commission and of both consortia in charge of the studies, especially as regards:

a) Data: Nace Rev. 2 [3]. In the original study, NACE rev.1.1 classification was used, which is no longer in force. With respect to the original methodology. The adoption of Nace Rev. 2, on the other hand, made it necessary to re-allocate some codes to the maritime activities

b) Coastal Regions: at NUTS 2 level and for some specific MEAs. Only for Coastal Tourism the analysis has been developed at NUTS 3 Level. Indeed NUTS 3 level represents the geographical scope closest to "coastal areas", also in line with EUROSTAT's approach on the definition of "coastal regions"

[3] NACE Rev. 2 : Statistical Classification of Economic Activities in the European Community - 4-digit system as adopted by EU Commission in 2008

3. Purpose of the Country fiches and of marine and maritime activities identification

Country fiches have been conceived for identifying blue growth needs and potential, by providing a breakdown of the marine and maritime activities (MEAs) at national level.

Country Fiches provide a general overview of countries and 6 specific sections as follows:

1. Marine and maritime economic activities (MEAs)
2. Breakdown of MEAs at regional level (NUTS 2) and selection of most relevant regions for the Study
3. List of the 7 largest, fastest growing and 7with most future potential and identification of 6 most promising MEAs*
4. Growth scenarios for the 6 most promising MEAs
5. Growth drivers and barriers for the 6 most promising MEAs
6. Analysis of maritime strategies at regional and national level, as well as those under preparation and their links with Smart Specialisation Strategies**
7. List of existing clusters (Baltic country fiches only)

*This is further explained in Section 4 of this document.
** This is further explained in section 7 of this document.

The reference list of MEAs has been agreed during a two-month discussion on methodology development, involving experts of the European Commission and of both consortia in charge of the various studies. As a result, the following 29 marine and maritime activities (MEAs) have been jointly defined and adopted for each of the 5 ongoing studies.

Below is a synoptic table providing a short description of the 29 MEAs.

It should be noted that the set of MEAs is highly heterogeneous and complex, mainly because of the manifold structures of the respective value chains and the mutual interdependence between them. Thus in many cases it is not possible to define a direct link between the most used economic activities classifications (e.g. NACE, COFOG[4], etc.) and maritime activities as such.

This is due to the fact that a MEA could be present in a number of NACE activities (eg. the MEA 0.1 Shipbuilding consists of two NACE codes "*C 30.11 Building of ships and floating structures*" and *"C 33.15 Repair and maintenance of ships and boats and ship repair*"). Or vice-versa only a part of economic data provided by NACE should be allocated to a single MEA (e.g. two different MEAs such as 1.1 Deep-sea shipping and 1.2 Short-sea shipping are both included in NACE code "*H 50.20 Sea and coastal freight water transport*").For this reason, specific methodological sheets have been elaborated for determining the correlation to the related classification systems for each of the 29 activities.

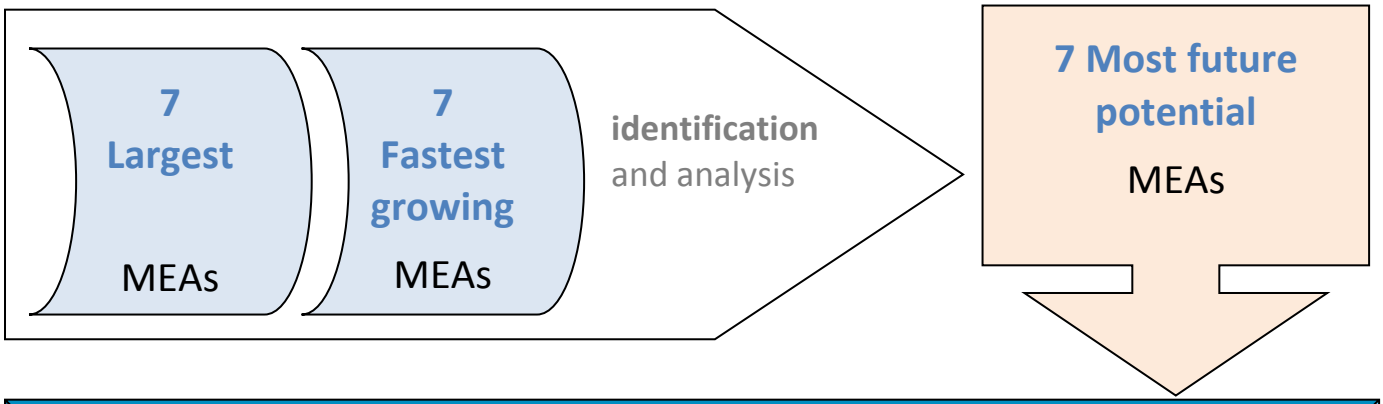
A complete description of this methodology is provided in the following annex : *Methodology for identifying and estimating MEAs using NACE and other data*.

[4] The Classification Of Function Of Government is an international classification used for classifying the public expenditure.

Short description of the MEAs by function

Function	Maritime activity	Short description
0. Other sectors	0.1 Shipbuilding and ship repair	Building and repair of merchant vessels and leisure boats; building, repair and maintenance of floating structures
	0.2 Water projects	Construction of civil engineering projects both coastal and inland, as waterways, harbour and river works, marinas, locks, dykes and dams.
1. Maritime transport and shipbuilding	1.1 Deep-sea shipping	International freight transport operated by large vessels on intercontinental routes (both liner or tramp services).
	1.2 Short-sea shipping (incl. Ro-Ro)	National or international freight transport over relatively short distances. Short-sea shipping in the EU takes place between EU ports and between EU and neighbouring countries (Med and Black Sea, Baltic and EEA countries) . Ro-Ro segment (ships for wheeled cargos) is also included
	1.3 Passenger ferry services	National or international transport of passengers on fixed routes. Often it is combined with Ro-Ro.
	1.4 Inland waterway transport	Freight transport on inland waterways.
2. Food, nutrition, health and eco-system services	2.1 Fish for human consumption	Catching, processing and selling (both wholesale and retail) of fishery products fit for human consumption
	2.2 Fish for animal feeding	Catching and processing of fishery products unfit for human consumption and used for animal feeding and agriculture
	2.3 Marine aquatic products	Farming of aquatic organism in marine and brackish water, mainly for human consumption
	2.4 Blue biotechnology	All possible technology applications to marine living organisms, including food, nutrition, health, environment enhancement, but also cosmetics, processing technologies, industrial applications, energy production.
	2.5 Agriculture on saline soils	Agriculture on saline, sodic and potentially salt affected soils
3. Energy and raw materials	3.1 Offshore oil and gas	Extraction of marine fossil fuels from offshore fields. Support activities for offshore extractions are also included
	3.2 Offshore wind	Exploitation of offshore wind energy for producing electricity
	3.3 Ocean renewable energy	Offshore exploitation of renewable energy resources (excluding wind) which includes: tides, waves, biomass, osmosis and ocean thermal energy conversion
	3.4 Carbon capture and storage	Capture, transport and storage of CO2 originating from large fuel power plants and depositing it in underground geological formations.
	3.5 Aggregates mining (sand, gravel, etc.)	Extraction of marine aggregates (sands and gravels) from the seabed
	3.6 Marine minerals mining	Deep-sea mining of minerals such as polymetallic nodules, manganese crusts and sulfide deposits
	3.7 Securing fresh water supply (desalination)	Desalination of sea water for fresh water usage (agriculture and consumption)
4. Leisure, working and living	4.1 Coastal tourism	Tourist and recreational economic activities related to the sea and located in coastal areas
	4.2 Yachting and marinas	Services related to recreational shipping (yachting, sailing, etc.) and marinas related services
	4.3 Cruise tourism	It is a form of travelling, involving an all-inclusive holyday on a cruise ship according to a specific itinerary in which the ship calls at different ports.
	4.4 Working	N/A
	4.5 Living	N/A
5. Coastal protection	5.1 Protection against flooding and erosion	Monitoring, maintaining and protecting coasts against flooding and erosions
	5.2 Preventing salt water intrusion	Adoption of measures focused at preventing salt water intrusion into freshwater aquifers
	5.3 Protection of habitats	Protection of natural habitats in coastal areas (excluding marine protected areas)
6. Maritime monitoring and surveillance	6.1 Traceability and security of goods supply chains	Organizations, systems, practices, equipments and services used for surveillance (security and safety) purposes in the field of maritime transportation
	6.2 Prevent and protect against illegal movement of people and goods	Monitoring and surveillance of the coastal borders using a variety of services, technologies and dedicated equipment for preventing against illegal movements of goods and people
	6.3 Environmental monitoring	Monitoring of environmental assets

4. Selection of the 6 most relevant and promising MEAs at national level



Subsequently, in each country the "*7 largest MEAs*" (based on GVA and employment in 2010,since no more recent data were available on EUROSTAT) and the *"7 fastest growing MEAs"* (based on compound annual growth rates (CAGR) for GVA and employment over the 3 years 2008-2010) were identified and analysed.

Furthermore, in order to identify the 7 activities with most future potential, scores have been given by country experts to each MEAs according to a series of qualitative indicators such as innovativeness, competitiveness, employment, policy relevance, spill-over effects and sustainability as follows :

INDICATOR	DEFINITION / GUIDING QUESTIONS
Innovativeness	To what extent is the given MEA driven by constant improvements and innovation? Are there significant current or planned investments 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 ina given country with the same activity in 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 extent 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 extent is the given MEA in the respective MS influenced by current or upcoming environmental regulations or depends on the good status of the environment? Does the sector have the necessary adaptive capacity?

Finally, as regards the final selection of the 6 “most relevant and promising” MEAs in each MS, priority has been given to the “growth potential” rather than to the current size or growth rate of maritime activities. The selection of the 6 most relevant and promising activities has been based on the 7-7-7, especially taking into account activities with most future potential. As a matter of fact, the purpose of this Study is to identify activities with a “Blue Growth potential” and not necessarily activities already well-established.

5. Growth scenarios

As regards the "scenario analysis", each of the 6 most promising activities has been described according to the following sections:

1. Description of the nature of the activity and value chain;
2. Description of economic and infrastructural scenario;
3. Description of the Regulatory environment of the activity.

6. Growth drivers and barriers to growth for the 6 most promising MEAs: Benchmark and SWOT analysis

The benchmark analysis is one of the two steps planned for identifying “growth drivers and barriers” for each of the most promising MEAs identified in each Country.

In order to conduct a “benchmark analysis”, it is needed to have a “paradigm” or a “model” activity within the EU (i.e. the “benchmark instance”) with which to compare the most relevant and promising activity identified. Benchmark instances are cases studies in which the value chain of the activity has been mapped and analysed in order to give a precise and detailed example on “how the activity could be organised”. For each instance, strengths (“*drivers for growth”*) and weaknesses (“*barriers to growth*”) have been analysed for the following 9 *functional elements,* as requested by DG MARE:

- *maritime research;*
- *development & innovation;*
- *access to finance;*
- *smart infrastructure;*
- *maritime clusters;*
- *education, training & skills;*
- *maritime spatial planning;*
- *integrated local development*
- *public engagement.*

The following 19 benchmark instances have been provided by our sector experts:

1. Shipbuilding and Ship Repair	**in Germany;**
2. Construction of water projects	**in Belgium ;**
3. Deep-sea shipping	**in Greece;**
4. Short Sea Shipping	**in the Netherlands;**
5. Passenger Ferry Services	**in Greece;**
6. Inland water transport and port activity:	**in Belgium (focus port of Brussels);**
7. Fishing for human consumption	**in the Shetland Islands**
8. Fishing for animal feed	**in Northern Denmark;**
9. Marine aquaculture	**in Greece;**
10. Blue Biotechnology	**in Schleswig-Holstein, Germany;**
11. Extraction of offshore oil and gas	**in the Scottish waters of the North Sea;**
12. Offshore wind	**in Denmark;**
13. Aggregates mining	**in the UK;**
14. Coastal tourism	**in Sardinia;**
15. Cruise tourism	**in Italy;**
16. Yachting and marinas activity	**in Italy;**
17. Protection of marine habitats	**in Germany – Habitat Mare;**
18. Maritime surveillance and security	**in Spain - Andalusia**
19. Environmental monitoring	**in the Balearic Islands**

For each MEA, a benchmark has been identified based on the EU country where the given activity is believed to perform best according to the 9 functional elements above-mentioned. For this reason, benchmark instances remain the same across the various studies. Each most relevant and promising activity has been assessed against the benchmark instance of reference using the same functional elements.

The results of the benchmark analysis reflect the differences between the country analysed and the benchmark. For this reason, our experts have also contextualised the findings of the benchmark analysis to the country's specificities through a SWOT analysis of each activity. While the benchmark analysis compares the most relevant and promising activities of a country with case studies based on other countries (external comparison), the SWOT analysis takes into consideration the strengths and weakness of the most relevant and promising activities within the country of reference (internal comparison).

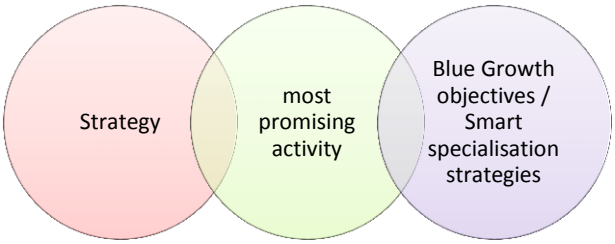
For the SWOT analysis, a set of "absolute information" has been identified, analysing in detail for each activity the 9 *functional elements* in order to identify possible drivers/bottlenecks to economic growth. The most relevant indicators for each of the *functional elements* has been analysed considering:

- social aspects,
- economic,
- infrastructure,
- environment,
- results of 7-7-7 MEAs

In both analyses (SWOT and benchmark), we have also analysed the possibility to use existing know-how from established industries to emerging sector and what role maritime sectors could play.

7. Analyse maritime strategies at regional and national level and links with Smart Specialisation Strategies

In the last step, all strategies at national and regional level with a marine or maritime dimension have been identified and analysed in order to whether they are linked with (i) the activities identified as "most promising" in the related country and (ii) the Blue Growth objectives.



More in detail, Country experts have examined all strategy documents identified, looking for possible objectives/actions/measures/etc. encompassing one or more of the 6 most promising activities. Therefore links with Blue growth objectives have also been traced.

In order to carry out this analysis, the "Logical diagramme" has been used as a tool for defining these links. In addition, the logical diagramme has also been commented by Country experts, to develop" logical conclusions" to these charts.

The same methodology has been used to identify links between strategies, most promising activities and Smart Specialisation Strategies (S3)[5]. Country experts have identified these links in all strategies, explaining how strategies interact with S3 horizontal approaches (or RIS horizontal priorities), as defined in the Guide to Research and Innovation Strategies for Smart Specialisation[6]. Also in this case, the Logical diagramme has been used, and conclusions have been developed for each link identified.

[5] Smart Specialisation strategies (S3) are strategic guidelines for helping a country or a region to give emphasis to its competitive advantage, exploiting its potential having "lasting impacts".
Therefore, the development of Innovation and research strategies in a country or a region based on S3 is a prerequisite to access to structural funds as from 2014. Possible links with S3 currently exist but are at present only theoretic

[6] http://s3platform.jrc.ec.europa.eu/en/c/document_library/get_file?uuid=e50397e3-f2b1-4086-8608-7b86e69e8553