



Study on Deepening Understanding of Potential Blue Growth in the EU Member States on Europe's Atlantic Arc

Inception Report

FWC MARE/2012/06 – SC C1/2013/02

Client: DG Maritime Affairs and Fisheries

Rotterdam/Brussels, 12th July 2013



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Table of contents

1	Introduction	5
1.1	The contribution of the Atlantic Action Plan towards Europe 2020	5
1.2	Our interpretation of the objectives of the study	6
1.3	Purpose of this Inception Report	6
2	The methodology to gather data on the blue economy	9
2.1	The underlying principles of data gathering	9
2.2	The approach of data gathering	9
2.3	Gathering of the data on the maritime economic activities	11
2.3.1	Methodology to assign sectors to MEAs (Eurostat-based)	11
2.3.2	Official National Statistical Sources	14
2.3.3	Alternative Sources	15
2.3.4	Other indicators	15
2.4	Identification of the best suitable number of GVA and employment	15
2.5	Qualitative review of the maritime economic activities	17
2.6	Breakdown of maritime economic activities at regional level and allocation to different sea-basins	17
2.7	Listing of the 7 largest, fastest growing and most promising maritime economic activities	18
2.7.1	Listing and ranking order of the 7 largest marine and maritime economic activities	18
2.7.2	Ranking order of the 7 fastest growing maritime economic activities over the 3 past years	18
2.7.3	Ranking order of the 7 most promising maritime economic activities	20
2.8	Assessment of innovation to identify the most innovative components of Blue Growth	22
2.9	Growth drivers and barriers for most relevant and promising maritime economic activities	23
2.9.1	Selecting the 6 most relevant and promising marine and maritime economic activities	24
2.9.2	Parameters for analysing key drivers and barriers to economic growth	24
2.10	Geographical concentration (cluster analysis)	26
2.11	Analysis and recommendations	27
3	Deliverables	29
4	Revised Workplan	33
	Annex I –Country fiche template Atlantic Sea Basin	36
	Annex II – NACE sectors associated to specific MEAs	37

1 Introduction

1.1 The contribution of the Atlantic Action Plan towards Europe 2020

By means of the Communication on Blue Growth¹, the European Commission has placed the blue economy firmly on the agenda of Member States, regions, enterprises and civil society to encourage dialogue and joint action. This ultimately also links to the wider policy framework at EU level and the current negotiations on the new programming period of the European Commission. In particular, against the background of the current discussions between EU Member States and the European Commission on the partnership agreements and the regional elaborations of the Operational Programmes (OPs) within the development of the Common Strategic Framework (CSF) for the future European Cohesion Policy Funds, i.e. the European Structural and Investment Funds (ESIF) for 2014- 2020. The ESIF includes the European Regional Development Fund, the European Social Fund, the European Maritime and Fisheries Fund and the European Agricultural and Rural Development Fund. Hence, the European Commission encourages EU Member States to take sea-basin specific strategies into account and identify common actions and issues. Ultimately, this aims to better pool resources and establish investment priorities.

In relation to the Atlantic Arc, integration and joint action have already been taken forward by the EU Member States, supported by the European Commission through Atlantic Forum Workshops and various other initiatives. The Communication “Developing a Maritime Strategy for the Atlantic Ocean Area”² was published in 2011 and fostered multilateral exchange among regional and national stakeholders in the Atlantic on how to harness the resources provided in the Atlantic in line with the overarching policy framework at EU level. In view of the Europe 2020 strategy and the objective of increasing economic growth and employment, the policy document suggests areas of particular attention for maritime stakeholders in the Atlantic Arc, e.g. joint action to reduce the carbon footprint, a more sustainable exploration of the Atlantic’s seafloors, to ensure long-term growth and an eco-system approach to mention but a few.

The *Atlantic Action Plan*³, places Blue Growth in the Atlantic Arc firmly under the umbrella of the Europe 2020 strategy. More specifically, it sets out priorities for research and investment to drive Blue Growth forward in the Atlantic Arc. Referring to the ESIF, the Action plan intends to convey an encouraging message to regions and the private sector to start working together to implement the objectives in a cross-border approach. By providing adequate stimulus, the Action Plan intends to attract more investment and private sector activity into the blue economy and help to stimulate the economy along EU coasts and regions. Against this background, the European Commission puts the spotlight on three horizontal areas of action:

- Investment targeted towards innovation, technological capacities and smart specialisation as well as considering the respective forward and backward linkages alongside a value chain and supporting the marine service industry.
- Research into ocean governance and the sustainable use of the marine resources as well as forecasting models and risk analysis
- Investment in higher skills for certain maritime economic activities to unleash the full potential of Blue Growth, notably in emerging maritime economic activities.

¹ European Commission, 2012: Blue Growth – opportunities for marine and maritime sustainable growth. COM (2012) 494 final. P. 3.

² European Union, 2011: Developing a Maritime Strategy for the Atlantic Ocean Area. COM (2011) 782 final.

³ European Union, 2013: Action Plan for a Maritime Strategy in the Atlantic area. Delivering smart, sustainable and inclusive growth Brussels, 13.5.2013, COM(2013) 279 final.

On a more operational level, the Action Plan comprises the following lines of priorities:⁴

- Promote entrepreneurship and innovation
- Protect, secure and develop the potential of the Atlantic marine and coastal environment
- Improve accessibility and connectivity of EU ports
- Create a socially inclusive and sustainable model of regional development

The policy framework provided in the action plan concludes with the need to regularly assess how the implementation of the Action Plan is contributing to achieving the EU's wider jobs, growth and sustainability objectives. Hence, to understand the extent to which socially inclusive growth has been achieved, and skills have been created. In addition it is intended to assess, to which extent lessons from the level of cooperation and/or support structures to the maritime economic activities in the Atlantic can be drawn and applied to other sea-basins.⁵ This will also include a mid-term review before the end of 2017 as well as complementing evaluations of completed projects within the Action Plan.

1.2 Our interpretation of the objectives of the study

Against the background of the Atlantic Action Plan and previous initiatives at EU level, we understand the specific objectives of the study are as follows:

- Provide a detailed breakdown and further analysis of the maritime economic activities at country specific level;
- Besides, and following the Atlantic Action Plan, to provide a more sea-basin specific overview of the contribution of the maritime economic activities to GVA and employment will be conducted to deepen the understanding of Blue Growth;
- The results of this study are intended to provide a clear picture of the main strengths of the marine and maritime economic activities in these Member States, supported by case study examples;
- Provide the method for calculating clear and reproducible indicators on the performance of the maritime economic activities.

Since, the study team will align the approach, the methodology and the timeline with other sea-basins, the information at Member State level will be compiled in a country fiche (see Annex I) and presented to DG MARE. Furthermore, and in line with earlier meetings⁶,

1.3 Purpose of this Inception Report

Above all, this inception report aims to identify how the information on the maritime economic activities will be gathered. It will provide a more detailed overview on the implementation of the "Study on Deepening Understanding of Potential Blue Growth in the EU Member States on Europe's Atlantic Arc" by taking into account the evolving policy context, the preliminary findings of

⁴ European Union, 2013: Action Plan for a Maritime Strategy in the Atlantic area. Delivering smart, sustainable and inclusive growth Brussels, 13.5.2013, COM (2013) 279 final. P. 4-9.

⁵ European Union, 2013: Action Plan for a Maritime Strategy in the Atlantic area. Delivering smart, sustainable and inclusive growth Brussels, 13.5.2013, COM (2013) 279 final. P. 4-9.

⁶ As agreed in the meeting of 23 April 2013 between DG MARE, COGEA, and ECORYS, COGEA will take care of "Maritime transport and shipbuilding", "Food, nutrition, and eco-system services", and "Maritime monitoring and surveillance", while ECORYS will take care of "Energy and raw materials", "Leisure, working and living", and "Coastal Protection". EU Member States with multiple sea-basins will be allocated to one particular study, e.g. ES, FR, UK to Atlantic Arc, DE and NO to North Sea and English Channel.

the study team as well as the methodological findings on assessing the contribution of maritime economic activities to economic growth and employment.

In particular, this inception report

- aims to present the detailed methodology on how to analyse the maritime economic activities, with a particular focus on quantitative analysis;
- presents a draft country fiche template (see Annex I) that is aligned with other sea-basin studies;
- present a refined timeline towards completion of the study.

As described in the proposal, we identified 6 interrelated tasks listed for this project, this inception report is part of Task 1- project inception. The following tasks are foreseen to follow:

- Task 2: Country analysis;
- Task 3: Innovation assessment;
- Task 4: Growth Drivers and Barriers;
- Task 5: Analysis of geographical concentration;
- Task 6: Analysis and recommendations.

The quantitative implementation of the project is supported by a centralised data team comprised of maritime data experts from Ecorys. This ensures that information and data gathering activities are closely aligned with the parallel running studies and incorporating their findings into the outputs required under the specific tasks within the study. The delineation and definitions used in the data collection are aligned with the other sea-basin studies for DG MARE that are running in parallel hence creating comparable country specific information.

According to the Terms of Reference, this assignment will have an expected duration of 7 months (if counted by the period between contract signing and delivery of the draft final report). Close coordination is ensured with the already mentioned parallel studies on the Mediterranean, Baltic and North Sea and English Channel. In particular for the countries that overlap with the Mediterranean sea-basin, the deadline of the 1st August 2013 on the delivery of the first draft country fiches needs to be reserved. The finalisation of the study and the submission of the draft final report – is expected to take place at the end of November.

With regards to editing and layout, we will take action on the requirements expressed in the request for services and will hence report in clear and easily understandable English. Besides, we will ensure to meet commonly recognised standards of documents for publication, e.g. provide a complete list of references and attach any background and confidential information in an Annex.

2 The methodology to gather data on the blue economy

2.1 The underlying principles of data gathering

In the Blue Growth study, which is at the basis of this and other sea-basin specific studies, data gathering has started from centrally published EU wide data, e.g. Eurostat, which ensures coherence between countries and sectors, and consistency over time. For non-traditional maritime economic activities (MEA) and especially for small and developing MEAs this turned out to be insufficient.⁷ Hence, other sources were needed, as is reflected in the Blue Growth study overview table on MEAs sizes. However, in the study also for a number of larger and more mature MEAs, like transport, oil and gas, or tourism, additional assumptions were needed secondary sources were used. (See annex 1 of the Blue Growth report, August 2012 and the addendum to this of May 2013).

The methodology used to quantify functions in the Blue Growth study has been adapted in the Sea basin studies launched by DG MARE to deepen the analysis started in the Blue Growth study for various reasons:

1. **Country level data:** In contrast to the BG study which provided data at EU level, the analysis will now focus on a Member State (NUTS 0) level, which will be the basis for analyses at the level of sea basins. For this reason, data will be gathered in a structured way at the level of countries, using country fiches for both quantitative and qualitative data. The data gathering work for countries bordering two or more sea basins has been assigned to one specific sea basin study (DK + SE to the Baltic Sea, DE to the North Sea, UK + FR + ES to the Atlantic Sea Basin. Subsequently, data for these countries is allocated to the relevant sea basins using MEA specific allocation methods (see further below);
2. **Providing transparency and replicability:** To make the approach replicable with the same data definitions in the future, and ensuring that data is also available at the same level in future years, as much as possible the Blue Economy estimate should rely on official statistical sources, like Eurostat and publications of the National Statistic Offices (e.g. Office for National Statistics). This also implies using the most recent Eurostat NACE Rev. 2 economic sector classification codes⁸. Where relevant and possible, equivalent NACE 1 / 1.1. Codes will be used to compare economic activity in the most promising functions and sectors to assess pre-sector and post-economic crisis.

2.2 The approach of data gathering

From the Blue Growth study, as well as from the intermediate findings of the North Sea and English Channel sea-basin study, we know that statistical sources do not provide data for all MEA (especially not for small/predevelopment type of MEA like blue biotechnology, ocean renewable energy or environmental monitoring), while also for the more mature MEA (transport, energy, tourism), still data may be lacking at the level of countries in formal statistics.

⁷ Due to insufficient data availability at EUROSTAT

⁸ The approach to use more recent data under NACE 2 classification, contrasts the Blue Growth study 2012, which was based on Rev. 1.1. data.

Furthermore, strictly following NACE sector codes to estimate MEA may result in too narrow definitions of the Blue Economy, disregarding for instance supply or support sectors that are not easily allocated to the maritime economy as such. Hence alternative – non-official, non-replicable or otherwise less consistent or transparent data sources may be required. Alternative sources, such as specific sector studies or industry estimates may give estimations for these (though at the risk of overestimating the size and contribution of an individual MEA).

Therefore, data for the MEA that compose the Blue Economy will be gathered from three different data sources, which allow to cover the above aspects and also allow to cross-check and compare magnitudes and judge the quality of the estimates obtained:

1. **Eurostat:** for those MEA where a clear link to individual NACE 4-digit sectors can be made, data on GVA and employment will be collected from the [Eurostat SBS database](#). See table 2.1. in the next paragraph on the assignment of NACE sectors to MEAs.
2. **Official National Statistical sources:** in addition to data obtained from Eurostat, we will also check for available data published by the respective national statistical offices (e.g. Office for National Statistics UK). This has a number of reasons:
 - a) **More detailed data available for the MEA's** at Official National Statistical sources: these types of sources may provide more detailed data (NACE codes) than what is reported by Eurostat, and as such can be used to fill data gaps observed from the Eurostat data.
 - b) **Increased level of data coverage for past years:** The Eurostat data inventory made in the BG study has shown that while Eurostat can be considered a reliable and replicable source (with the NACE sector structure being a system harmonised among Member States to ensure comparability), the level of coverage for historical years may be limited for individual sectors. If for certain years data for individual countries is missing, EU totals cannot be compiled anymore. Solutions for this assessed are the use of older data (the one but latest year if that is complete), checking national statistical offices of credibility and actuality of the data or estimating the magnitude of the missing figure using secondary sources. The extent to which this may be needed varied between MEAs and between countries.
 - c) **Provide for a cross-check between data reported by Eurostat and data reported nationally.** Potential discrepancies between Eurostat and National Official Statistical Sources may occur due to a more recent data or more complete data sets on a national level.
3. **Alternative secondary sources.** For a number of (pre-development stage) MEAs, a connection to NACE sector data is not possible, since official statistics do not explicitly cover these MEA. This also applies for MEA where official statistics (Eurostat and Official National Statistical Sources) may lack data on the level of individual NACE sectors. Whilst part of the value chain remains hence ignored because of the impossibility to define which share of some indirectly relevant sectors should be allocated, causing the resulting figures to give a fairly narrow definition of the MEA at hand. The advantage of using these sources is that they allow for a **comparison and better interpretation of the size of each MEA:** these types of sources include secondary literature both at the EU and the national level (e.g. publications of sector associations, specific study reports, or other consultancy reports etc.)
 - a) Alternative European sources: These sources are collected on a central level and can be industry associations or EU wide studies of research institutes or other European or global sources, e.g. EWEA, 2012: Green Growth – the impact of wind energy on jobs and the economy, April 2012.
 - b) Alternative national sources: Universities, consulting companies or other institutions or companies may have conducted national research which provides quantifications of the MEAs in the selected country, e.g. Socio-Economic Marine Research Unit (SEMURU), National University of Ireland Galway etc.

Please note, that despite the lower level of standardisation of the approach (due to missing NACE classification in Alternative sources) in comparison to official statistical sources, we provide full transparency of the sources and approaches to assess alternative sources of data for MEAs.

2.3 Gathering of the data on the maritime economic activities

This chapter will provide a detailed description and understanding of the operationalization of the described approach for data gathering.

2.3.1 Methodology to assign sectors to MEAs (Eurostat-based)

In order to allocate NACE sectors (for which data can be obtained from Eurostat and/or from national statistical agencies) to MEA, the following steps have been undertaken as part of the methodology preparation:

1. **Specification of value chains:** identification and definition of the main economic sectors within each of the 27 maritime economic activities (MEA) identified in the 'Blue Growth' study⁹. The specification of the value chains was built on the description of the value chains for individual MEAs provided in the 'Blue Growth' study and, as necessary completed and further elaborated the description of the main sectors for each value chain. It is noted here that in the value chain descriptions in the Blue Growth study, components described were not always directly defined as sectors, so some interpretation and redefinition was needed (in a separate annex, the resulting value chain descriptions will be presented).
2. **Development of correspondence mapping:** for each MEA a correspondence mapping was developed between the MEA and the NACE 2¹⁰ nomenclature of sectors. In other words, a list of relevant NACE codes were identified for each MEA based on its main components as defined under point 1 above.¹¹ An example of this is given in Table 2.1.

⁹ The analysis extends to the eleven sectors identified in the previous Blue Growth study. See also: Ecorys, Deltares, Oceanique Developpement, 2012: Blue Growth – Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts. Final Report. 13th August 2013. Chapter 3. Available here: See <https://webgate.ec.europa.eu/maritimeforum/system/files/Blue%20Growth%20Final%20Report%2013082012.pdf>

¹⁰ Wherever possible throughout our work we will use NACE 2 codes to provide the most recent picture and to make the work replicable in the future. In addition to it and provided that it proves to be relevant and possible, equivalent NACE 1 / 1.1. Codes will be used to compare economic activity in the most promising functions and sectors to assess pre-sector and post-economic crisis.

¹¹ Please note that the study team will align the NACE codes with comments and findings from other sea-basin studies (North Sea, Baltic) after the presentation of the draft country fiches.

Table 2.1 Exemplary screenshot of the correspondence mapping of GVA and NACE

Description	Type	MARITIME SECTORS	NACE Rev. 2 (corresp.)	Maritime Transport and shipbuilding	Food & aquaculture	Energy & raw materials	Leisure & tourism	Coastal protection	Maritime monitoring and surveillance
Building of ships and floating structures	P	BUILDING OF SHIPS, FLOATING STRUCTURES AND BOATS	30.11						
Building of pleasure and sporting boats	P		30.12						
Repair and maintenance of ships and boats	P		33.15						
Warehousing and storage	S	SUPPORT ACTIVITIES FOR MARINE TRANSPORT	Parts of: 52.10, 52.24, 52.29						
Cargo handling	S								
Other transportation support activities	S								

Source: Ecorys

3. **Categorisation of NACE codes:** NACE codes will be categorised according to the proportion of their total value – of GVA and/or employment – that is attributable to maritime-related VGAs. Essentially they were categorised as follows:

- **Primary** NACE codes: for which maritime related economic activities account for all (or virtually all) of the value for the given code. This category would include, for example, activities such as building and repair and maintenance of ships and boats (30.11, 30.12, and 30.13) or sea and coastal transport (50.10, 50.20) etc.
- **Secondary** NACE codes: for which there is clearly a part of the value of the NACE code that is attributable to maritime related economic activities but where there is a significant part that is due to non-maritime activities. This category would include, for example, activities such as cargo handling (52.24) that covers activities related to all cargo transport modes (e.g. including rail, air and road) or extraction of petroleum and natural gas (06.10, 06.20) that covers both offshore and onshore extraction activities. For those sectors, an estimation of the maritime share is needed (see below).
- **Tertiary** NACE codes: for which – based on the overall description of the value chains of the 27 MEA (see Point 1) – a part of value for the given code may be attributable to maritime related economic activities. In other words, the definition of the NACE code suggests that it does (or should) cover economic activities that are relevant for one or more of the 27 MEAs. However, in comparison to ‘secondary’ NACE codes, the attribution of the relevant part of the overall value of the NACE code to the Blue economy in general, or to specific MEAs, is *a priori* difficult to define. This may be due to various reasons, such as:
 - o Maritime-related activities account for only a very small share of the total value of the NACE code; and
 - o The maritime component of the NACE code is spread across multiple MEAs, with each corresponding sub-component being difficult to identify; or
 - o The activity covered by the NACE code is situated at some ‘distance’ (upstream or downstream) within the relevant value chain(s), hence making it more difficult to apportion the relevant part of the value of the NACE code to maritime activities.

Following this assessment we will check in detail for which secondary and/or tertiary codes it is sensible to undertake this allocation exercise, and where not. The inclusion of non-primary

codes is followed by the inclusion of assumptions and keys based on other sources. This can create uncertainties in the quality of the result and therefore needs to be assessed. Generally, it is concluded that for secondary NACE codes an inclusion can create more value than it increases uncertainty. Tertiary codes will in most cases not be included as the added value generated by their inclusion is expected to be lower than the risk of misestimating the relevant share of the sector to take into account. We therefore applied a more restrictive delineation for the data estimations based on statistical sources (Eurostat and national statistics). To assess the importance of tertiary sectors, as a separate analysis parallel to gathering data at country level, input/output tables from the UK and Spain are exemplary assessed for a number of maritime sectors in the context of this study¹².

The resulting list of NACE Rev.2 4-digit sectors assigned to the various MEA is presented in the Annex II.

4. Attribution of the value of NACE codes to MEAs. Following from the preceding categorisation of NACE codes, the underlying information requirements to attribute NACE values to MEAs are as follows:

- **Primary** NACE codes: *a priori* it will be assumed that all of the value – of GVA and/or employment – of the NACE code is a result of maritime ‘blue’ economic activities. For these codes, suitable information is required that permits the allocation of the total value of the NACE code across relevant individual MEAs, where necessary. Examples are NACE 52.24 cargo handling, which is relevant to both deep-sea, short sea and inland shipping, or NACE 50.10 passenger water transport, which includes both ferries and cruise. Data was gathered from Eurostat/national statistical agencies as well as – if necessary – other sources, either in the form of proxy variables or based on available literature or other information sources – that could be systematically applied across different countries in order to attribute the share of total NACE values to each relevant MEA (i.e. an ‘allocation key’) to develop suitable allocation keys for this. Where suitable information was unavailable, we applied ‘expert opinions’ on the values of GVA and employment that can be attributed to the specific economic activity and, hence, to the corresponding relevant NACE code (see below for details per sector/MEA).
 - o For several NACE sectors, this proved to be very difficult:
 - NACE 30.11 building of ships and boats, and NACE 33.15 Ship repair, relates to virtually all MEA using ships, while the industry structure of the shipbuilding sector in Europe does not necessarily match the relative importance of the various MEAs (e.g. Europe dominates in the building of cruise ships which are also used largely elsewhere in the world, whereas cargo ships are largely built outside Europe).
 - NACE 42.91 water projects: this covers all construction works in and around the water and could relate to coastal protection, marinas, ports development, offshore installations or other kinds of infrastructure relevant to any of the MEA.

For these reasons, those NACE sectors have been separated from the MEA of the BG study and a new category 0 is introduced to ensure inclusion of these maritime activities in the Blue Economy analysis.

- **Secondary** NACE codes: for such codes suitable information is required, firstly, to make an allocation of the total value of the NACE code between maritime and non-maritime activities and, secondly, to make an allocation of the maritime part of the total value of

¹² Nevertheless at this stage we cannot foresee if this approach is a suitable tool.

the NACE code across relevant individual MEAs. A similar approach as for primary NACE sectors was followed.

- **Tertiary** NACE codes: in principle such codes require the same information as for 'secondary' NACE codes. As mentioned above, these codes are not included in the quantification of the Blue Economy Tables.

2.3.2 Official National Statistical Sources

The data required consist of GVA and employment data for NACE codes as well as support data (various indicators e.g. quantities, nights, etc.). This exercise applies only to those maritime economic activities which can be assessed with NACE codes (see Annex II). Those that are not listed there can not be assessed with NACE codes, hence they can not be cross-checked with national statistical sources:

- a. Extraction of Official National Statistical Sources for:
 - i. on the years 2008, 2009 and 2010 – to allow for comparability with Eurostat data;
 - ii. on the years 2011 and 2012 (if available) – to complement Eurostat data with more recent data;
 - iii. Indicate any deviations or add-on NACE codes that may be available at the level of Official National Statistical Source, but not necessarily (yet) at Eurostat level.
- b. Search for the requested support data on the website of the same statistical office. These data are a collection of what is needed to break down NACE data to allocate them to MEAs.

Beneath, a short description of the data requested:

- i. Number of passengers on ships: These are absolute numbers;
- ii. Type of shipping (shortsea, deepsea, unknown): This is supposed to be shown in percentages (e.g. 15 %, 25 %, 50 %);
- iii. Maritime Cargo: If data available, here the percentage of Cargo which is maritime Cargo is requested (e.g. 50 %). If no data is available a judgment of the country expert can be given (but needs to be marked as such);
- iv. Production value of type of fish in euro: There is a list of types of fish. The list you find in the inputsheet is a selection of Prodcom codes. If you find such data on the website of the national statistical office you can quickly track down the codes. The numbers are supposed to be collected in euro;
- v. GVA and employment data on fishing: It seems that Member States are not delivering data on NACE codes 03.11 and 03.12 to Eurostat. If such data was found (and inserted in the first table) this is not necessary anymore. Otherwise other available data (if available) on GVA and employment in fishing from official national statistical offices is requested;
- vi. Marine aquatic products: Data on the number persons employed and GVA in the marine as well as shellfish sector;
- vii. Agricultural accounts: number of persons employed and farm work (AWU) in each of the NUTS 2 regions of the country as well as the production value at basic price by each NUTS 2 region;
- viii. EU soils: This data is expressed in 1000 hectares and measures therefore the size of the area: The total agricultural area, saline soils area as well as agricultural area on saline soils in the country are requested;
- ix. Oil and gas production: Primary production volumes of crude oil in 1000 tons, of natural gas in 1000 tons of oil equivalent, the quantities produced offshore (oil as well as gas);
- x. Offshore share marine aggregates: Data in million tons is requested for the total aggregates as well as for the marine aggregates;

- xi. Tourism indicators: The number of bedrooms and bed-places by each NUTS 3 region in Hotels and similar establishments in the country and the number of nights spent in touristic accommodation establishments by each NUTS 2 region in the country are requested.

2.3.3 Alternative Sources

For Alternative sources, next to the pre-identified ones (as presented in the table beneath), and the National Initial Assessment Reports (within the Marine Strategy Framework Directive). Next to these, we will also look for additional sources that exist at regional, national and EU level. These groups of sources can make reference to Eurostat data, however, they are not official publications of the national statistical offices.

Table 2.2 List of pre-identified national maritime sector analysis

EU Member State	Source
France	Publications from Ifremer. (http://wwz.ifremer.fr/L-institut)
	French Maritime Cluster. (http://www.cluster-maritime.fr/)
	http://www.data.gouv.fr/)
	Centre de documentation Economie-Finances (CEDEF). (http://www.economie.gouv.fr/cedef)
Spain	Impacto económico del sector del mar by the Centro de Estudios Económicos Tomillo, (http://www.ceet.es/ceet/trabajos-ceet)
	Innovamar, 2011: Cuantificación económica del Sector Marítimo y su desagregación sectorial, Fundación Innovamar. Feb. 2011 (http://www.innovamar.org/desarrolloc.asp?apartado=112)
Portugal	Portuguese Republic, National Ocean Strategy. Including the references to statistics. (https://webgate.ec.europa.eu/maritimeforum/system/files/National_Ocean_Strategy_Portugal_en.pdf)
UK	UK Chamber of shipping, statistics. (http://www.ukchamberofshipping.com/information/key-statistics/)
	Publications from Crown Estate. (http://www.thecrownstate.co.uk/freedom-of-information/publication-scheme/)
	Gov.uk website. (http://www.statistics.gov.uk/hub/travel-transport/other-modes-of-transport/maritime/index.html)
Ireland	Harnessing our ocean's wealth, July 2012. An Integrated. Marine Plan for Ireland. Roadmap. New Ways. New Approaches. New Thinking. July 2012. (http://www.ouroceanwealth.ie/SiteCollectionDocuments/Harnessing%20Our%20Ocean%20Wealth%20Report.pdf)

2.3.4 Other indicators

This category comprises a set of different indicators on

1. Other company data
2. the number of enterprises and SMEs per maritime economic activity
3. the share of public vs. privately attributed GVA and employment¹³

2.4 Identification of the best suitable number of GVA and employment

Once the Eurostat figures, the sources of the Official National Statistical offices and the alternative sources have been exhausted and reported, the country experts will have to identify the most suitable number of GVA and employment. This identification is based on the judgment of the

¹³ Where possible, please indicate a percentage share of public vs. private. If not available, we ask you to indicate a qualitative description of these in Annex I. If the activity is mainly triggered by public spending (although executed by private companies) please also indicate this.

country expert and validation by the core team. In table 1 of the country fiche, this figure is reported indicating there also which source was used for this figure eventually.

Based on the data research described above we will compile tables comparing the three source categories to quantify the size of the Blue Economy as indicatively demonstrated in the following table:

Table 2.3 Exemplary Blue Economy Table (as reported in Annex I of the country fiche)¹⁴

Maritime Economic Activity		Eurostat			Official National Statistical sources			Alternative sources		
		GVA (€m)	Employment	Source + Reference year	GVA (€m)	Employment	Source + Reference year	GVA (€m)	Employment	Source + Reference year
0 Shipbuilding										
0.1	Shipbuilding (excl. leisure boats) and ship repair	10	5	Eurostat SBS 2010	10	5	National statistical agency 2010	15	8	European industry association 2010
0.2	Construction of water projects	6	7	Eurostat SBS 2009	7	8	National statistical agency 2010	10	12	European industry association, 2010
...	...									

Source: Ecorys

Based on the judgement of our country experts we mark (bold) in the table (which will be annexed to the country fiches) the numbers we assess to represent the best picture of the actual situation in the country. These selected data are then used for table 1 in the country fiche template (see Annex I):

Table 2.4 Exemplary first part of table 1 of the country fiche¹⁵

Maritime economic activity		GVA (€ m)	Employment	Number of enterprises	Further indicators	Source & Reference year + notes
0. Shipbuilding						
0.1	Shipbuilding (excl. leisure boats) and ship repair	10	5			
0.2	Construction of water projects	10	12			

Source: Ecorys

¹⁴ Please note that the numbers are only presented to provide a better understanding of our approach and do not correspond anyhow to Eurostat data.

¹⁵ Please note that the numbers are only presented to provide a better understanding of our approach and do not correspond anyhow to Eurostat data.

2.5 Qualitative review of the maritime economic activities

The qualitative assessment will be based on the country expert's literature review and expert judgment. The prime objective is to corroborate the quantitative data findings on the maritime economic activities with qualitative insights. More specifically, the review will

- a) Socio-economic indicators: most important figures reported in table 1 (i.e. GVA, number of persons employed, enterprises, etc.) will be commented on;
- b) Discrepancies between the respective data sources (Eurostat, Official National Statistical sources, Alternative sources) on the maritime economic activities will be explained further;
- c) Historical data (where possible), that has been observed during the quantitative analysis (see also 2.3.2.) will be commented;
- d) General information on the economic activity, e.g. major ports within the MEA short-sea shipping or information on regulatory developments;
- e) Elaborated qualitative expert opinions on the MEAs;
- f) Any values and figures identified that describe the indirect economic effects on employment and GVA. These indirect effects could occur through, e.g. **backward linkages**¹⁶ or **induced impacts**¹⁷ (e.g. as a result of tourism spending);
- g) Where possible multipliers¹⁸ are identified.

2.6 Breakdown of maritime economic activities at regional level and allocation to different sea-basins

For several countries, an allocation to sea basins is needed: If a country has coastlines along various sea basins (e.g. Denmark, Germany, Spain, France) an '*allocation key*' is needed in order to permit the overall country GVA and employment estimates to be divided between each sea basin. The '*allocation keys*' were established on the basis of available literature, proxy variables or, in the last resort, on expert opinions. This key is specific to each MEA. Examples:

- For maritime transport (1.1, 1.2, 1.3), as economic activity is mainly concentrated in ports, port statistics provide a method to allocate between sea basins. Data can be obtained from statistical sources (Eurostat, national);
- Estimates for coastline tourism (MEA 4.1) are based on the economic activities in hotels and accommodation in coastal regions (NUTS2, NUTS3). Since these are located on particular sea basins (with only a few exceptions where they are bordering two sea basins, e.g. Cornwall, North Denmark), their location can be used and data can be attributed to a particular sea basin;
- Offshore Oil and Gas (3.1) is usually located in one Sea basin and can therefore allocated based on expert judgment.

For MEA not based on statistical data but on alternative sources, it will depend on the level of detail of these sources whether a sea basin allocation can be derived, or whether we need to rely on expert opinions. This will vary per country and MEA.

¹⁶ Backward linkages are economic activities that are suppliers for the maritime economic activity at hand. For example the steel industry is a supplier for shipbuilding. Together they are linked in a value chain.

¹⁷ Induced impacts are the result of expenditure in a maritime economic activity, which affects other economic activities outside the maritime economic activity itself (e.g. tourism spending on transportation).

¹⁸ in our definition a multiplier of 1.5 indicate that the indirect employment is 50% of direct employment

2.7 Listing of the 7 largest, fastest growing and most promising maritime economic activities

The following chapter is adapted from the approach suggested by COGEA and following formal exchange between DG MARE, Ecorys and COGEA.

Already obtained and processed data of previous tasks have to be used for the development of the present task.

2.7.1 Listing and ranking order of the 7 largest marine and maritime economic activities

According to the Blue Growth study, for identifying the **7 largest maritime economic activities** at **NUTS 0** level, we ask you to analyse two variables for each economic activity¹⁹:

- **Gross value added (GVA)**
- **Number of persons employed.**

If data on gross value added could not be obtained, turnover, production value or other similar figures would be considered as proxies for the order of magnitude.

Results/outputs

The following table should be compiled for all economic activities identified in the Country:

Table 2.5 Overview of 7 largest economic activities in a MS at NUTS-0 level

Functions / economic activity		GVA (€ m)	Employment	Source and time reference of data	Score
1. Maritime transport					
1.1	Deep-sea shipping				
1.2	Short-sea shipping (incl. Ro-Ro)				
...				

In the last column of the table above, a score will be assigned to each economic activity. This score is the result of the following:

$$\frac{(GVA \text{ million} * 10) + (number \text{ of persons employed} / 1000)}{2}$$

This function, as developed in the Blue Growth Study, results giving a high relevance to the employment dimension. The 7 economic activities with highest score will be reported according to the above table (table 1 in the country fiche).

2.7.2 Ranking order of the 7 fastest growing maritime economic activities over the 3 past years

The selection of the **7 fastest growing maritime economic activities** in past 3 years at NUTS 0 level is estimated with the same approach as the 7 largest economic activities, where as a basis have to be used **GVA (€ m)** and **number of persons employed**.

Fastest growing economic activities can be defined by calculating the **compound annual growth rate (CAGR)** for (i) GVA and (ii) number of persons employed. Three-year historical data will be taken as the basis for the calculation of the CAGR.

¹⁹ Of course, the analysis of a economic activity will be carried out only if the economic activity is considered "existing" in a given MS.

CAGR (in terms of percentage) is given by the following:

$$CAGR \text{ for Gross Value Added } (t_0, t_n) = \left[\left(\frac{GVA_{(t_n)}}{GVA_{(t_0)}} \right)^{\frac{1}{t_n - t_0}} - 1 \right] * 100$$

$$CAGR \text{ for number of persons employed } (t_0, t_n) = \left[\left(\frac{\text{Numb of pers empl}_{(t_n)}}{\text{Numb of pers empl}_{(t_0)}} \right)^{\frac{1}{t_n - t_0}} - 1 \right] * 100$$

Where:

t_0 : is the starting period of an historical series (e.g.: 2008)

t_n : is the last period of an historical series (e.g. 2010)

Example:

CAGR for Gross Value added of Deep-Sea shipping in Italy

Table 2.6 GVA for Deep Sea Shipping for 2008 - 2009 - 2010 (Example for Italy) - million euro

Economic activity		2008	2009	2010
1.1	Deep Sea Shipping	1.262,97	564,49	1.419,86

$$CAGR \text{ for Gross Value Added } (2008, 2010) = \left[\left(\frac{1419,86}{1262,97} \right)^{\frac{1}{2010-2008}} - 1 \right] * 100 = 6,03\%$$

Table 2.7 Number of persons employed for Deep Sea Shipping, for 2008 - 2009 - 2010 (Example for Italy) - units

Economic activity		2008	2009	2010
1.1	Deep Sea Shipping	28.806	23.689	26.659

$$CAGR \text{ for Number of persons employed } (2008, 2010) = \left[\left(\frac{26659}{28806} \right)^{\frac{1}{2010-2008}} - 1 \right] * 100 = -3,80\%$$

Results/outputs

The following table should be compiled, including information on CAGR (if available) of GVA and Number of persons employed for all economic activities.

Given that GVA and number of persons employed are not available for all economic activities, these variables can be replaced by other relative and very close data resembling economic growth.

Table 2.8 Value added Maritime transport (€m)

Functions / economic activity		GVA (CAGR)	Number of persons employed (CAGR)	Source and time reference of data	Score
1. Maritime transport					
1.1	Deep-sea shipping	6,03%	-3,80%		1,12
1.2	Short-sea shipping (incl. Ro-Ro)				
...				

Please follow the example above and compile a table for every economic activity by calculating CAGR for GVA and Numbers of persons employed.

In order to rank the top-7 fastest growing economic activities, the **average of both indicators has to be calculated ((CAGR GVA + CAGR Empl)/2)**.

If no quantitative data are available, then qualitative scores are used (-/0/+) to compile the table above mentioned. If this evaluation system is adopted, in order to convert qualitative results into quantitative figures score as: "+" valued at + 2.5% growth, and "-" at - 2.5% decline, and "0" at zero growth. In case **the results appear lower or strange than compared to previous years**, i.e. the years before 2010, this will be indicated, as well.

2.7.3 Ranking order of the 7 most promising maritime economic activities

The identification of the 7 most promising economic activities derives from information described in the previous section of this study and the sector experts' evaluation of data and, duly supported by the Country experts.²⁰

According to the Blue Growth study's methodology, **a number of (qualitative) indicators** need to be used to assess the future potential of economic activities. These are **combined with a number of key external drivers** which will determine their importance in a long term period:

- **Innovativeness**, (relevance of R&D and innovations) – see also chapter 3;
- Potential for **competitiveness of EU industry**, in comparison to the global industry in the respective segments;
- **Future employment creation**;
- Relevance for **EU-based policy initiatives** in that specific economic activity;
- **Spill-over effects** and **synergies** with other economic activities;
- **Sustainability and environmental** aspects.

For each economic activity, scores have been given based on expert views derived from the function and economic activity analyses conducted within this study.

For the evaluation, the following elements need to be taken into account:

INNOVATIVENESS: in general, traditional maritime economic activities are expected to have low(er) activities of innovation since they focus more on improving existing technologies (incremental innovation). On the contrary, economic activities in the pre-development and growth stage are expected to have more significant investments in R&D. However, these general assumptions need to be contextualised to specific country environment, where new economic activities could have only marginal investments in innovation.

COMPETITIVENESS: this indicator should assess the expected future position of a given economic activity of a country in the EU/international market. Furthermore, competitiveness should be assessed also comparing the economic activity of a given country to the same economic activities of other countries in the same area/sea-basin.

EMPLOYMENT: in general, traditional maritime activities are expected to have less impacts on future job creation (as compared to the ones in the pre-development stage, for instance), because of their consolidated economic activities which tend to expand only marginally. On the other hand,

²⁰ This subchapter is primarily intended to select maritime economic activities that are still immature but holds a promise towards the future. The activities selected can build on the activities already identified in the Blue Growth study, however based on the country expert's insights other, new activities might be added. It is suggested that before doing that contact is being sought with the core team of the study. Drivers and barriers to growth will be addressed at a later stage by the sector experts.

traditional economic activities are strongly linked to the overall employment of a given country. As a general rule, growing economies with expanding employment should spill their positive trends also over maritime activities. As regards new activities, these are not strictly linked to the creation of new jobs, especially because they could be based more on technology than on job creation.

POLICY RELEVANCE: this indicator should assess the regulatory activity underlying each specific maritime economic activity in a given MS, especially taking into account ambitions of the EU2020 strategy. It has to be considered that legislative activities concern more often traditional economic activities (mature) than maritime economic activities in the pre-development and growth stage, because of their socio-economic role and the EU's contribution to global policies for these (e.g. catching fish for human consumption).

SPILL-OVER EFFECTS: occur, when one activity is transferred or conveyed to other economic subjects by unintended means. This effect may be generated through technology transfer or the re-use of facilities in certain industries and it penetrates into the activity.

SUSTAINABILITY: strongly linked to policies, the sustainability indicator looks to environmental aspect of each economic activity. This should not be assessed only taking into account the related impact, but it should also take into consideration legislative efforts undertaken and/or efforts by the sector itself towards a more sustainable economic activity.

Results/outputs

Based on Country Expert evaluation, with the support of related Sector Experts, table 7 as reported in the present document should be compiled providing:

- “+” in case positive impact of the economic activities on this indicator;
- “-” in case of negative impact;
- “0” in case the impact is negligible or no impact;

In case of doubt or uncertainty the score ‘?’ is applied.

Only one judgement (+;-;0;?) should be assigned to each indicator.

The following table should be compiled and provided in an Annex I of the country fiche:

Table 2.9 Future potential of economic activities

Function	Economic activity	Innovativeness	Competitiveness	Employment	Policy relevance	Spill-over effects	Sustainability	Overall score
0. Shipbuilding	0.1 Shipbuilding(excl. leisure boats) and ship repair							
	0.2 Construction of water project							
1. Maritime transport	1.1 Deep-sea shipping							
	1.2 Short-sea shipping (incl. RoRo)							
	1.3 Passenger ferry services							
	1.4 Inland waterway transport							
2. Food, nutrition, health and eco-system services	2.1 Catching fish for human consumption							
	2.2 Catching fish for animal feeding							

Function	Economic activity	Innovativeness	Competitiveness	Employment	Policy relevance	Spill-over effects	Sustainability	Overall score
	2.3 Marine aquatic products							
	2.4 Blue Biotechnology							
	2.5 Agriculture on saline soils							
3. Energy and raw materials	3.1 Offshore oil and gas							
	3.2 Offshore wind							
	3.3 Ocean renewable energy (wave, tidal, OTEC, thermal, biofuels, etc.)							
	3.4 Carbon capture and storage							
	3.5 Aggregates mining (sand, gravel, etc.)							
	3.6 Marine minerals mining							
	3.7 Securing fresh water supply (desalination)							
4. Leisure, working and living	4.1 Coastal tourism							
	4.2 Yachting and marinas							
	4.3 Cruise tourism							
5. Coastal protection	5.1 Protection against flooding and erosion							
	5.2 Preventing salt water intrusion							
	5.3 Protection of habitats							
6. Maritime monitoring and surveillance	6.1/6.2 Traceability and security of goods supply chains, Prevent and protect against illegal movement of people and goods							
	6.1 Environmental monitoring							

The last column summarises the final score in terms of number of positive/negative judgements:

- “0” and “-” will have the effect of annulling “+” (e.g.: in the same row: ++++ and – and 0 will give the final score of ++).
- “?” will not affect the final score.

2.8 Assessment of innovation to identify the most innovative components of Blue Growth

The aim of this task is to **assess innovation scores of each of the maritime economic activities**²¹ in the country. The innovation criteria are based on the EU Innovation Scoreboard (EUIS), which also provides indicators at national (NUTS 0 level). However, these figures are not broken down by economic sector or maritime economic activity. As a working approach to assess the most innovative components of the blue economy, we will compile the following approach:

²¹ If thought to be more suitable, this task can be done on the level of sectors than on maritime economic sectors (value chain approach).

1. **Establish quantitative scores;**
2. If quantitative scores can not be provided, it indicates data gaps. Hence, for these cells, we will **apply ranking scores which present the rank/order of the different maritime economic activities** (e.g. a ranking score of 1 means that that particular sector scores highest on the indicator in comparison to the other economic activities);
3. **If other EUIS indicators are found to be more relevant for this country,**²² the indicators will be assessed (qualitatively) and the rationale for using them will be provided;
4. The Alternative secondary sources screened during the quantitative data gathering (see also 2.2.) will be checked in terms of any sources on innovation indicators if found to be more relevant for the country.

Table 2.10 Scoring of the maritime economic activities on innovation criteria²³

Innovation Union Scoreboard indicators		Maritime economic activity 1	Maritime economic activity 2				
1	R&D expenditure as percentage of sales/turnover						
2	Percentage of employees having higher level education ²⁴						
3	No of publications in MEA and rank in Europe/worldwide						
4	No of patents in MAE and rank in Europe/worldwide						
5	Other innovation criteria proposed (and scoring)						
Maritime economic activity / sector innovation score							

Based on the above quantitative and qualitative information an assessment is made of the 7 most innovative maritime economic activities.

2.9 Growth drivers and barriers for most relevant and promising maritime economic activities

This task is part of the sector analysis and has the objective of selecting the 6 most relevant and promising maritime economic activities in each of the Member States. These will be selected from the listing of the 7 largest, 7 fastest growing and 7 most promising maritime economic activities.

Besides, the task aims at analysing the key drivers and barriers to growth for these selected activities in each Member State.

²² e.g. since these have been found through the secondary country literature review (see chapter 1).

²³ Where available, the quantitative score will be supplied by the central data team.

²⁴ As a working definition, this would comprise all those that have a university degree or one equal to university (university of applied sciences) as opposed to vocational trainees and manual workers ("blue collar" workers).

2.9.1 Selecting the 6 most relevant and promising marine and maritime economic activities

The main aim of the task is to identify the most promising economic activities which have a perspective and promising growth potential, where the future investments and projects could focus. This identification exercise is a result of expert evaluation, which is based on data and information derived from the previous sections, and combined with a number of key external drivers which will determine their importance in the future.

A short description and a table summarizing the quantitative data on the 6 most relevant and promising maritime economic activities will be presented. Besides, a brief qualitative description for explaining the ranking order and the results of the identification will be provided.

Table 11 - Ranking order of the 6 most relevant and promising maritime economic activities in each EU Member State

Rank	Maritime economic activities	Score
1.	Deep-sea shipping	
2.	Short-sea shipping (incl. Ro-Ro)	
...	...	

A score will be developed to rank the 6 most relevant and promising maritime economic activities, taking into account the findings of the country analysis, the innovation assessment.

2.9.2 Parameters for analysing key drivers and barriers to economic growth

Once the 6 most relevant and promising maritime economic activities have been identified, this task aims at a refined and in-depth analysis of the respective growth drivers and barriers. The objective of the task is three-fold:

- 1) identify to what extent the drivers and bottlenecks of growth, including economic, social and environmental aspects, have hindered the development in the key sectors;
- 2) assess which measures at EU and national level have been developed to support the drivers and limit the bottlenecks
- 3) assess whether there are any spill-over impacts from more established industries (know-how, knowledge transfer, co-operation etc.);
- 4) analyse the functioning of the companies and their international competitive position

In terms of data sources, we will rely on both qualitative as well as quantitative input. We will derive that through desk research and interviews with sector stakeholders across these maritime economic activities. We will also take recourse to the findings and expertise gained through compiling the initial Blue Growth study.²⁶ Equally so, we will draw on our sector competitiveness expertise developed and try to align the analysis with our competitiveness framework model.²⁷

²⁶ Ecorys, Deltares, Oceanique Developpement, 2012: Blue Growth: Scenarios and Drivers for sustainable Growth from the Oceans, Seas and Coasts. Final Report. Available here: <https://webgate.ec.europa.eu/maritimeforum/content/2946>.

²⁷ <http://www.sectorcompetitiveness.com>

In particular, and wherever possible and relevant data (both quantitative and qualitative) is available, we will analyse the 6 most relevant and promising maritime economic activities according to the following parameters:²⁸

1. Workforce characteristics, e.g. skills gap reported in a maritime economic activity, good level of higher education institutes in the Member State providing Masters/Bachelor programmes on maritime economic activities and their supply industries; wage level
2. Hiring characteristics, e.g. the underlying question which profiles of employees are recruited, the skillsets of the recruited employees, their education level as well as personal information, e.g. their nationality, age, sex
3. Administrative burdens, e.g. e-government solutions for enterprises in the maritime economic activities (reporting), business support infrastructure for exporting companies (licensing), administrative burden when recruiting non-EU employees (hiring), social protection of employees (firing)
4. Restrictive practices, occurring to companies through any type of national environmental or safety regulation, e.g. respective technical standards for vessels safety, crew requirements and pollution prevention under IMO, national subsidies, cabotage restrictions, national FDI restrictions and other types of support that constitute international barriers to trade and investment in given maritime economic activities.
5. Sources of finance: this parameter will analyse in a qualitative way which types of funding instruments companies in the maritime economic activity can tap into, e.g. through dedicated research programmes stemming from the Horizon 2020 budget lines (notably in the pre-development stage activities and for demonstration projects), the use of EIB financial support mechanisms that promote access to finance, FDI, public-private partnerships etc.
6. On-going research, we understand an overview of on-going research activities, e.g. number of on-going research programmes and projects pursued by the private sector in EU, and national funding programmes. We will also report, based on sector expert interviews, any major technological research compiled.

On the basis of this analysis, we will include an assessment of the strengths and weaknesses of the 6 most relevant and promising maritime economic activities.

Previous best practice examples of countries and sectors with regards to fostering or impeding on the development of the blue economy will be taken into account and updated and complemented by Member State specific drivers and barriers.

In addition to that, we will seek to contrast and compare information on the levels of development between different sectors within the same country; and similar sectors across different countries in EU Member States in the Atlantic Arc. Both approaches will highlight internal market practices and Member State support for the different sectors thereby allowing us to identify best practice scenarios or approaches.

²⁸ As also mentioned in the request for services, ch. 3.4., P. 5.

2.10 Geographical concentration (cluster analysis)

The objective of this task in our view is to identify and characterise at least 12 maritime clusters, with a minimum of one in each Member State located in the Atlantic Arc. In addition, and in case there is a specific regional or national cluster strategy in place, a brief description of the main objectives and features of the cluster strategy, including the geographical level of decision-making will be included in the analysis.

With regards to the cluster identification, those clusters identified in the Blue Growth study will be updated, with a view of verifying these pre-identified clusters²⁹ and adding further ones (if available). Hence, for countries that pertain to multiple sea-basins, we will also include clusters located also in other sea-basins, e.g. the Mediterranean (for France and Spain) and the North Sea (for France and the UK).

The methodology used to complete this task would include a primary desk-based research and economic analysis. The approach to cluster identification is as follows:

1. the **European Cluster Observatory (ECO)**³⁰ will be considered as a first source. Besides, the ECO needs to be further scouted since much updated information and data are available, especially in the Library section.
2. Hence, **additional sources for cluster analysis** will be taken into account.
 - a) Strengthening Clusters and Competitiveness in Europe, The Role of Cluster Organisations, 2012³¹
 - b) Transnational networks of cluster organisations, 2012³²
 - c) information from the European Network of Maritime Clusters³³

The information will be analysed and reported according to the following features of clusters:

1. Identification of existing clusters/updating the list in the 2012 Blue Growth study;³⁴
2. Identifying of maritime economic activities in the cluster and indicate the mixture and composition of the cluster activities in terms of their development stage (mature, growing, early development);
3. Assessment of strengths and weaknesses of clusters³⁵

In addition to that, a more in-depth analysis will be compiled notably on the following indicators:

4. Number of students in higher education³⁶;
5. Number of students in higher education following courses specially designed for employment in the blue economy
6. Unemployment rate in the cluster³⁷

²⁹ In the previous Blue Growth studies, these were: UK: Scottish West Coast, South West England, Aberdeen, Solent, London Gateway; IE: Galway/Western Ireland (see also case study Blue Growth – Annex 5 maritime clusters); FR: Bretagne, Brest, Marseilles, ES: Galician Coast, Barcelona;

³⁰ <http://www.clusterobservatory.eu/index.html>

³¹

<http://www.clusterobservatory.eu/system/modules/com.gridnine.opencms.modules.eco/providers/getpdf.jsp?uid=bef8b501-ec16-44ad-b7ec-42f3ad1f25ea>

³²

<http://www.clusterobservatory.eu/system/modules/com.gridnine.opencms.modules.eco/providers/getpdf.jsp?uid=7a335bf0-f4c7-4362-aaf0-0a36a8ae4bda>

³³ <http://www.enmc.eu/>

³⁴ See Final Report Blue Growth, ch. 4.4. and 4.5. (The latter in how far France and Spain are concerned). More extensive case studies on the maritime clusters can be found in Annex 5 – cluster reports. Available here: <https://webgate.ec.europa.eu/maritimeforum/content/2946>

³⁵ At a later stage of the project, this analysis will feed into the compilation of the overall SWOT analysis

³⁶ Please compare also with findings in Ch. 0 general overview on this.

7. On-going research: Please indicate quantifiable information (complemented by a qualitative description where needed), e.g. number of on-going research programmes and projects in the cluster, regionalised patent & publications data (where available at cluster level), R&D test centres located in the cluster etc.

As requested, we will suggest a particular set of maritime clusters for further analysed prior to starting the task. We suggest this to happen after the submission of the draft country fiches on 1st August 2013. DG MARE can then approve these identified clusters or choose an alternative set that we will analyse according to the above mentioned approach.

2.11 Analysis and recommendations

This task aims at drawing conclusions on the previous tasks and providing an overview of maritime economic activities. In addition to the concluding findings of the previous tasks, we will also:

1. Identify and assess EU measures aimed at stimulating growth;
2. Describe good practices that were identified in the Member States.

An integrated team of country and sector experts and the core team will work together on this assessment with a view of looking at a broader range of measures than a mere best practice assessment of individual sectors. In this instance measures of sectors that not necessarily comprise of the core of the Blue Growth industries within the region will also be picked up. T

The policy evaluation is carried out at national level - NUTS 0, 1 or regional level NUTS 2. The evaluation assesses

1. Maritime and generic policies: at national, regional and EU level including those that are perceived to favour sustainable maritime growth (qualitative analysis).
 - a. This lists the objectives and key thematic and economic priorities of maritime and generic policies
 - b. The consequences for maritime activities
 - c. The potential impacts on sustainable growth
 - d. Investment and funding that is available and aligned to these policies
 - e. Other generic policies with high impact on maritime economic activities
2. Besides, the rationale on what renders such measures effective shall be provided, focusing also on legal or financial measures
 - a. qualitative analysis of the effectiveness of the maritime and generic policies, based on the expert views of the country and sector experts
 - b. Suggestion of quantifiable evidence indicators for impact – wherever available. Examples for impact could be number of enterprises created, growth impact, GDP impact, productivity, increase of patenting activities, higher FDI activities etc.
 - c. Assessment and description of the evidence indicator for impact

³⁷ Use if available figures of the corresponding region at NUTS 3 level

3 Deliverables

Following the submission of this inception report the following deliverables are to be submitted to the Commission Services. Comments on the inception report will not result in the revision of the report but rather be taken into account and incorporated into the draft final report.

1. Country Fiche template

The Draft Country Fiche is submitted as an annex to this inception report. In order to ensure adaptability of result of the parallel running sea-basin projects, country fiche template has been sourced from the consortium carrying out a parallel study on the Mediterranean sea-basin. Some aspects and questions of the template have been adapted to fit the requirements of the request for service specification and the context of the Atlantic Arc sea-basin.

2. Draft report

The draft report will be submitted to DG MARE until 1st August 2013 and will mainly consist of the draft country fiches (country analysis). This will be followed by a presentation/meeting with the European Commission. The Draft Report will point at some emerging findings and challenges of the country fiches both in methodological and empirical terms.

The draft report will be closely aligned to the country fiche template (see Annex I) and will provide the following for each of the 5 Member States in the Atlantic Arc:³⁸

0. General overview of the country, including general socio-economic data at NUTS 0 level, a map of the coastal regions and a brief overview of the coastal regions in the EU Member State
1. Marine and maritime economic activities including
 - a. Quantitative assessment of the relevant maritime economic activities in a Member State;
 - b. qualitative review of the maritime economic activities
 - c. Breakdown of maritime economic activities at regional level and allocation to different sea-basins
2. Lists of the 7 largest, fastest growing and most promising marine and maritime economic activities
3. Identification of the most innovative components of Blue Growth
 - a. Assessment of the innovation score of the maritime economic activities
 - b. Assessment of innovation reports compiled at national level

In order to prepare the sector analysis, we will make a first suggestion with regards to the selection mechanism on the 6 most promising maritime economic activities.

Besides, the Draft Report will report on the status of the project at the designated reporting date and may identify areas which will require additional work. In view of the timeframe of the study, such issues will be carried forward to the Presentation of preliminary results of the study and to the Draft Final Report – rather than being incorporated into a revised Inception Report.

³⁸ Following a decision taken by DG MARE on 23rd April 2013, countries which are located alongside more than one sea-basin will be included in a single country fiche. Consortia preparing country fiches are covering the whole country and will provide a split between the sea basins within their country fiche. Hence, the Ecorys-led consortium will prepare the country fiches for the UK, France and Spain.

3. Suggestion of a set of maritime clusters and the 6 most relevant and maritime economic activities

This deliverable relates both to country and sector analysis. With regards to country analysis, we will present a particular set of maritime clusters to be analysed to DG MARE. A rationale for selecting the clusters and a geographical grouping of the clusters according to sea-basins will be provided. Our client can approve these or choose an alternative set. We suggest compiling this list after submission of the draft report and before presenting the preliminary results. This will allow country experts to have sufficient time to take into account findings on the maritime economic activities and qualitative review when identifying the maritime clusters in the EU Member States.

Related to sector analysis, we will present the 6 most relevant and promising maritime economic activities prior to starting the sector analysis (ch. 2.9. Growth Drivers and Barriers for most relevant and promising maritime economic activities).

We suggest a meeting with DG MARE to discuss both deliverables briefly prior to formal approval of DG MARE.

4. Presentation of preliminary results

Before the end of month 5 of the study,³⁹ the contractor is asked to provide a maximum of three presentations of the preliminary results in Brussels – based on the Draft Report. The consortium will provide draft presentation slides to DG MARE prior to the meetings. The target audience will be DG MARE representatives and other stakeholders.

The content of the presentations on the preliminary results of the study will be closely aligned with DG MARE prior to delivery. It will build strongly on the findings of the country fiches for each Member States and preliminary findings at sea-basin level.

Provisionally, the presentation of preliminary results will include findings from the country analysis:

1. Emerging findings at EU level from the country analysis: notably on the size and contribution to employment of the maritime economic activities and the list of the 7 largest, fastest growing and most promising maritime economic activities in each EU – Member State and at sea-basin level
2. Identification of the most innovative components of Blue Growth
3. Assessment of strengths and weaknesses and in-depth analysis of maritime clusters
4. Assessment of emerging findings on maritime and generic policies that support Blue Growth at Member State level and across the sea-basin
5. Preliminary good practices derived at sea-basin level

As well as findings from the sector analysis:

7. overview on the 6 most relevant and promising maritime economic activities at sea-basin level
8. Analysis of the growth drivers and barriers for further development of the maritime economic activities, i.e. both industry-internal factors and exogenous market conditions
9. Highlight the framework conditions of the maritime economic activities selected, i.e. – in terms of economic, social and regulatory terms
10. Provide an overview on the international competitive positioning of the companies in the sector

Within 2 weeks after the presentation of the preliminary results, we will send a draft final version of the completed country fiches to the European Commission

³⁹ The consortium is open to discuss an earlier date for the presentation of the preliminary results, to allow DG MARE to align the Atlantic Arc sea-basin study with other sea-basin studies. Following the signature of the contract by DG MARE on the 11th July 2013, this deadline would theoretically be on 11th December 2013.

5. Draft Final report

A draft final report shall be submitted within 6 months⁴⁰ following the signature of the contract. It will take into account the comments from DG MARE on the presentation of preliminary results as well as stakeholders during the three presentations. In particular, it will suggest clear and concise measures to stimulate growth and good practices in the sea-basin.

Draft conclusions on maritime and generic policies, as well as measures, in EU Member States to support Blue Growth will be presented alongside a description of why these measures work. Besides, examples of good practices will also be presented from one or more EU Member States will be presented that other national and regional stakeholders could follow.

Additionally, the draft final report will contain a draft executive summary of maximum 5 pages, written in a clear, unambiguous and comprehensible style. Highly specialised terminology will be avoided and we will ensure that the summary can be used independently of the main report.

A slide presentation (draft final version) in English of maximum 15 minutes will also be provided with the draft final report.

Comments from the Client will be incorporated into an amended version. We propose holding a meeting within 1-2 weeks of submission of the Draft Final Report to discuss the content of this report.

6. Final report

Following receipt of comments from the Client a final version will be issued. It is anticipated that the Final Report will address any comments received from the Client. The aim of the Final Reporting task is to provide a detailed breakdown on the Blue Growth industries and their prospects for future development for the five countries in the Atlantic Arc. It will be submitted, at the latest within month 7 following the signature of the contract.

We will ensure that in the final report the following requirements are met:

- Not exceeding a maximum length of 125 pages, excluding any technical annexes.
- Providing background information in Annexes to the report
- Diagrams will be compiled to be suitable for presenting on web or with powerpoint presentations
- Delivering tables as MS Excel worksheets or Access database, out of which the most significant ones will be reproduced in the final report
- Excluding any personal or confidential data in the main final report, to allow all reports to be publishable. If needed, confidential information should be provided in a separate Annex to the final report

Furthermore, the Final Report will also be supplemented by the final country fiches for all 5 countries assessed in this study. With a maximum content of 10 pages each. In terms of layout, all country fiches will be in a user-friendly format, with legible graphs and diagrams as well as an easily understandable language.

⁴⁰ The consortium is open to discuss an earlier date for the presentation of the preliminary results, to allow DG MARE to align the Atlantic Arc sea-basin study with other sea-basin studies. Following the signature of the contract by DG MARE on the 11th July 2013, this deadline would theoretically be on 11th January 2014.

4 Revised Workplan

Project implementation will be organised in such a way that it maximises the efficiency of information exchange between the work that is being undertaken on other sea-basins. The planning of tasks under this project along with the deliverables and meetings are given in the scheme below.

Throughout the course of the project, a harmonised approach will be promoted for countries which have access to multiple sea-basins, i.e. UK, France, Spain for this sea-basin assignment via the experts involved. The following table presents an overview of meetings and deliverables (project milestones):

Table 4.1 : Summary milestones⁴¹

Date	Weeks	Milestone	Meeting
27 th June	0		Kick-off meeting
12 th July	2	Submission of the inception report, (including a detailed workplan, detailed information on data gathering methodology, a country fiche template)	
25 th July	4		Informal meeting to exchange on the draft country fiches (chapters 0,1,2,3)
1 st August	5	Submission of draft final country fiches Presentation of draft report to DG MARE	Interim meeting
23 rd August	8	Suggestion of a set of maritime clusters	
18 th October	16	Presentation of preliminary results of the study to DG MARE and other stakeholders in up to three presentations (latest	Up to three presentations to stakeholders
15 th November	20	Draft Final Report	Final reporting meeting
13 th December	24	Final reporting	

⁴¹ Please note that this schedule takes the kick-off meeting as the starting date of the assignment, not the official starting date given by the co-signature of DG MARE to the contract.

Table 4.2 Workflow table

Month	June				July				August				September				October				November				December	
Week of the project	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Task 1 – Project Inception				KoM		IR																				
Task 2 – Country analysis								M	DCF/DR																	
Task 3 - Assessment of Innovation																										
Task 4 – Growth Drivers and Barriers											SMC															
Task 5 – Analysis of geographical concentration																										
Task 6 – Analysis and recommendations																			PPR			CFF	DFR			FR

Abbreviations:

KoM = kick-off meeting

IR = Inception report

M = Meeting

DCF = Draft Country Fiches

DR = Presentation of draft report

SMC = Suggestion Maritime Clusters / 6 most promising maritime economic activities

PPR = Presentation of preliminary results

CFF = Country fiches (final version)

DFR = Draft Final Report

FR = Final Report

Annex I –Country fiche template Atlantic Sea Basin

Annex I will be attached as a separate and stand-alone document to this inception report.

Annex II – NACE sectors associated to specific MEAs

Beneath is an overview of the NACE codes used and the allocation keys. These will also be used for the Official National Statistical Sources.⁴²:

Table I.1. NACE sectors associated to specific MEAs.

MEA	NACE codes used	Allocation keys
0.1 Shipbuilding (excl. leisure boats) and ship repair	33.15 Repair and maintenance of ships and boats 30.11 Building of ships and floating structures	100% assigned to this MEA
0.2 Construction of water projects	42.91 Construction of water projects	100% assigned to this MEA
1.1 Deep-sea shipping	50.20 Sea and coastal freight water transport 77.34 Renting and leasing of water transport equipment 52.24 Cargo handling 52.10 Warehousing and storage 52.22 Service activities incidental to water transportation	See description below the table
1.2 Short-sea shipping (incl. Ro-Ro)	50.20 Sea and coastal freight water transport 77.34 Renting and leasing of water transport equipment 52.24 Cargo handling 52.10 Warehousing and storage 52.22 Service activities incidental to water transportation	See description below the table
1.3 Passenger ferry services	77.34 Renting and leasing of water transport equipment 52.24 Cargo handling 52.10 Warehousing and storage 52.22 Service activities incidental to water transportation 50.10 Sea and coastal passenger water transport	See description below the table
1.4 Inland waterway transport	50.40 Inland freight water transport 77.34 Renting and leasing of water transport equipment 52.24 Cargo handling 52.10 Warehousing and storage 52.22 Service activities incidental to	50.40 100% assigned. Other sectors: See description below the table

⁴² Please note that the study team will align the NACE codes with comments and findings from other sea-basin studies (North Sea, Baltic) after the presentation of the draft country fiches.

MEA	NACE codes used	Allocation keys
	water transportation	
2.1 Catching fish for human consumption	03.11 Marine fishing 03.12 Freshwater fishing 10.20 Processing and preserving of fish, crustaceans and molluscs 46.38 Wholesale of other food, including fish, crustaceans and molluscs 47.23 Retail sale of fish, crustaceans and molluscs in specialised stores	46.38 and 47.23 100% assigned. Other sectors: See description below the table
2.2 Catching fish for animal feeding	03.11 Marine fishing 03.12 Freshwater fishing 10.20 Processing and preserving of fish, crustaceans and molluscs	See description below the table
3.1 Offshore oil and gas	06.10 Extraction of crude petroleum 06.20 Extraction of natural gas 09.10 Support activities for petroleum and natural gas extraction	See description below the table
3.5 Aggregates mining (sand, gravel, etc.)	08.12 Operation of gravel and sand pits; mining of clays and kaolin 09.90 Support activities for other mining and quarrying	See description below the table
4.1 Coastal tourism	55.10 Hotels and similar accommodation 55.20 Holiday and other short-stay accommodation 55.30 Camping grounds, recreational vehicle parks and trailer parks 55.90 Other accommodation	See description below the table
4.3 Cruise tourism	50.10 Sea and coastal passenger water transport 77.34 Renting and leasing of water transport equipment	See description below the table

NACE 50.10 Sea and coastal passenger water transport: allocated to MEA 1.3 Passenger ferry services and 4.3 Cruise tourism, using data on the number of passengers transported to/from main ports (=ferry passengers only) vs the number of passengers embarked and disembarked in all ports of the particular country (= cruise + ferry passengers), and calculating the share of ferry over the total, with the remainder allocated to the cruise tourism MEA.

NACE 50.20 Sea and coastal freight water transport allocated to MEA 1.1 Deepsea and MEA 1.2 Shortsea shipping on the basis of the percentages of shortsea and deepsea shipping (based on tons shipped) of the country, an indicator provided in Eurostat.

52.10 Warehousing and storage: allocated to MEAs 1.1, 1.2, 1.3 and 1.4, and 4.3. First the share to be considered maritime needs to be defined and this was taken to be 50% based on an inventory of various countries, and can be adapted if more specific data are available for the particular country. Then, to allocate between 1.1, 1.2, 1.3, 1.4 and 4.3, first a split between cargo and passenger related handling needs to be made. This is calculated using the GVA data for NACE 50.10, 50.20 and 50.40, thus calculating each share in the total. Finally, to allocate between 1.1 and 1.2 the same key as under 50.20 is applied.

52.22 Service activities incidental to water transportation: for this sector the same approach as for 52.10 is followed (except for the maritime share as the whole sector is considered maritime).

52.24 Cargo handling: for this sector the same approach as for 52.10 is followed.

77.34 Renting and leasing of water transport equipment: for this sector the same approach as for 52.10 is followed (except for the maritime share as the whole sector is considered maritime).

NACE sectors 03.11 Marine fishing, 03.12 Freshwater fishing and 10.20 Processing and preserving of fish, crustaceans and molluscs are allocated between MEA 2.1 and 2.2 on the basis of the value of production value (JRC data) for human vs non-human consumption.

For NACE sectors 06.10 Extraction of crude petroleum, 06.20 Extraction of natural gas and 09.10 Support activities for petroleum and natural gas extraction, the share of offshore GVA is calculated using the share of offshore production (data from JRC) compared to total production (from Eurostat), calculated for oil (for NACE 06.10, gas (06.20) and the weighted average of the two (for 09.10).

For NACE sectors 08.12 Operation of gravel and sand pits; mining of clays and kaolin and 09.90 Support activities for other mining and quarrying, the offshore share was calculated for each country on the basis of UEPG data (totals vs marine aggregates) for each individual year.

For all NACE sectors under MEA 4.1 coastal tourism (55.10 Hotels and similar accommodation, 55.20 Holiday and other short-stay accommodation, 55.30 Camping grounds, recreational vehicle parks and trailer parks, 55.90 Other accommodation), to estimate the share of these sectors that can be considered coastal (as compared to national totals obtained from Eurostat), through the following steps:

1. Collect the number of nights spent in a given NUTS-2 region (not available at NUTS3 for most countries);
2. Collect the number of beds-places available for all the NUTS-3 regions within the given coastal NUTS 2 region;
3. Attribute a number of nights spent at NUTS-3 level to each NUTS-2 region, based on the respective share on beds available
4. Aggregate resulting "nights spent at NUTS 3" only for maritime NUTS 3.

Calculate the share in the national total of nights spent, and multiply this with the national GVA data for the NACE sectors concerned.

NACE	NAME	INCLUDES	EXCLUDES
03.11	Marine fishing	<ul style="list-style-type: none"> - fishing on a commercial basis in ocean and coastal waters - taking of marine crustaceans and molluscs - whale catching - taking of marine aquatic animals: turtles, sea squirts, tunicates, sea urchins etc. - activities of vessels engaged both in marine fishing and in processing and preserving of fish - gathering of other marine organisms and materials: natural pearls, sponges, coral and algae 	<ul style="list-style-type: none"> - capturing of marine mammals, except whales, e.g. walruses, seals, see 01.70 - processing of whales on factory ships, see 10.11 - processing of fish, crustaceans and molluscs on factory ships or in factories ashore, see 10.20 - renting of pleasure boats with crew for sea and coastal water transport (e.g. for fishing cruises), see 50.10 - fishing inspection, protection and patrol services, see 84.24 - fishing practiced for sport or recreation and related services, see 93.19 - operation of sport fishing preserves, see 93.19
03.12	Freshwater fishing	<ul style="list-style-type: none"> - fishing on a commercial basis in inland waters - taking of freshwater crustaceans and molluscs - taking of freshwater aquatic animals - gathering of freshwater materials 	<ul style="list-style-type: none"> - processing of fish, crustaceans and molluscs, see 10.20 - fishing inspection, protection and patrol services, see 84.24 - fishing practiced for sport or recreation and related services, see 93.19 - operation of sport fishing preserves, see 93.19
06.10	Extraction of crude petroleum	<ul style="list-style-type: none"> - extraction of crude petroleum oils - extraction of bituminous or oil shale and tar sand - production of crude petroleum from bituminous shale and sand - processes to obtain crude oils: decantation, desalting, dehydration, stabilisation etc. 	<ul style="list-style-type: none"> - support activities for oil and natural gas extraction, see 09.10 - oil and gas exploration, see 09.10 - manufacture of refined petroleum products, see 19.20 - recovery of liquefied petroleum gases in the refining of petroleum, see 19.20 - operation of pipelines, see 49.50
06.20	Extraction of natural gas	<ul style="list-style-type: none"> - production of crude gaseous hydrocarbon (natural gas) - extraction of condensates - draining and separation of liquid hydrocarbon fractions - gas desulphurisation - mining of hydrocarbon liquids, obtained through liquefaction or pyrolysis 	<ul style="list-style-type: none"> - support activities for oil and natural gas extraction, see 09.10 - oil and gas exploration, see 09.10 - recovery of liquefied petroleum gases in the refining of petroleum, see 19.20 - manufacture of industrial gases, see 20.11 - operation of pipelines, see 49.50
08.12	Operation of gravel and sand pits; mining of clays and kaolin	<ul style="list-style-type: none"> - extraction and dredging of industrial sand, sand for construction and gravel - breaking and crushing of gravel - quarrying of sand - mining of clays, refractory clays and kaolin 	<ul style="list-style-type: none"> - mining of bituminous sand, see 06.10
09.10	Support activities for petroleum and natural gas extraction	<ul style="list-style-type: none"> - oil and gas extraction service activities provided on a fee or contract basis: <ul style="list-style-type: none"> - exploration services in connection with petroleum or gas extraction, e.g. traditional prospecting methods, such as making geological observations at prospective sites <ul style="list-style-type: none"> o directional drilling and re-drilling; „spudding in“; derrick erection in situ, repairing and dismantling; cementing - oil and gas well casings; pumping of wells; plugging and abandoning wells etc. 	<ul style="list-style-type: none"> - service activities performed by operators of oil or gas fields, see 06.10, 06.20 - specialised repair of mining machinery, see 33.12 - liquefaction and regasification of natural gas for purpose of transport, done off the mine site, see 52.21 - geophysical, geologic and seismic surveying, see 71.12

NACE	NAME	INCLUDES	EXCLUDES
		<ul style="list-style-type: none"> o liquefaction and regasification of natural gas for purpose of transport, done at the mine site o draining and pumping services, on a fee or contract basis o test drilling in connection with petroleum or gas extraction 	
09.90	Support activities for other mining and quarrying	<ul style="list-style-type: none"> - support services on a fee or contract basis, required for mining activities of divisions 05, 07 and 08 <ul style="list-style-type: none"> o exploration services, e.g. traditional prospecting methods, such as taking core samples and making geological - observations at prospective sites <ul style="list-style-type: none"> o draining and pumping services, on a fee or contract basis o test drilling and test hole boring 	<ul style="list-style-type: none"> - operating mines or quarries on a contract or fee basis, see division 05, 07 or 08 - specialised repair of mining machinery, see 33.12 <ul style="list-style-type: none"> o geophysical surveying services, on a contract or fee basis, see 71.12
10.20	Processing and preserving of fish, crustaceans and molluscs	<ul style="list-style-type: none"> - preparation and preservation of fish, crustaceans and molluscs: freezing, deep-freezing, drying, cooking, smoking, salting, immersing in brine, canning etc. - production of fish, crustacean and mollusc products: fish fillets, roes, caviar, caviar substitutes etc. - production of fishmeal for human consumption or animal feed - production of meals and solubles from fish and other aquatic animals unfit for human consumption - activities of vessels engaged only in the processing and preserving of fish - processing of seaweed 	<ul style="list-style-type: none"> - processing and preserving of fish on vessels engaged in fishing, see 03.11 - processing of whales on land or specialised vessels, see 10.11 - production of oils and fats from marine material, see 10.41 - manufacture of prepared frozen fish dishes, see 10.85 - manufacture of fish soups, see 10.89
30.11	Building of ships and floating structures	<p>This class includes the building of ships, except vessels for sports or recreation, and the construction of floating structures:</p> <ul style="list-style-type: none"> - building of commercial vessels: <ul style="list-style-type: none"> o passenger vessels, ferry boats, cargo ships, tankers, tugs etc. - building of warships - building of fishing boats and fish-processing factory vessels - building of hovercraft (except recreation-type hovercraft) - construction of drilling platforms, floating or submersible - construction of floating structures: <ul style="list-style-type: none"> o floating docks, pontoons, coffer-dams, floating landing stages, buoys, floating tanks, barges, lighters, floating - cranes, non-recreational inflatable rafts etc. - manufacture of sections for ships and floating structures 	<ul style="list-style-type: none"> - manufacture of parts of vessels, other than major hull assemblies: <ul style="list-style-type: none"> o manufacture of sails, see 13.92 o manufacture of ships' propellers, see 25.99 o manufacture of iron or steel anchors, see 25.99 o manufacture of marine engines, see 28.11 - manufacture of navigational instruments, see 26.51 - manufacture of lighting equipment for ships, see 27.40 - manufacture of amphibious motor vehicles, see 29.10 - manufacture of inflatable boats or rafts for recreation, see 30.12 - specialised repair and maintenance of ships and floating structures, see 33.15 - ship-breaking, see 38.31 - interior installation of boats, see 43.3
33.15	Repair and maintenance of ships and boats	<p>This class includes the repair and maintenance of ships and boats. However, the factory rebuilding or overhaul of ships is classified in division 30:</p> <ul style="list-style-type: none"> - repair and routine maintenance of ships 	<ul style="list-style-type: none"> - factory conversion of ships, see 30.1 - repair of ship and boat engines, see 33.12 - ship scrapping, dismantling, see 38.31

NACE	NAME	INCLUDES	EXCLUDES
		- repair and maintenance of pleasure boats	
42.91	Construction of water projects	- construction of: <ul style="list-style-type: none"> - waterways, harbour and river works, pleasure ports (marinas), locks, etc. - dams and dykes - dredging of waterways	- project management activities related to civil engineering works, see 71.12
46.38	Wholesale of other food, including fish, crustaceans and molluscs	- wholesale of feed for pet animals	
47.23	Retail sale of fish, crustaceans and molluscs in specialised stores	- retail sale of fish, other seafood and products thereof	
50.10	Sea and coastal passenger water transport	- transport of passengers over seas and coastal waters, whether scheduled or not: <ul style="list-style-type: none"> o operation of excursion, cruise or sightseeing boats o operation of ferries, water taxis etc. - renting of pleasure boats with crew for sea and coastal water transport (e.g. for fishing cruises)	- restaurant and bar activities on board ships, when provided by separate units, see 56.10, 56.30 - renting of pleasure boats and yachts without crew, see 77.21 - renting of commercial ships or boats without crew, see 77.34 - operation of "floating casinos", see 92.00
50.20	Sea and coastal freight water transport	- transport of freight over seas and coastal waters, whether scheduled or not - transport by towing or pushing of barges, oil rigs etc. - renting of vessels with crew for sea and coastal freight water transport	- storage of freight, see 52.10 - harbour operation and other auxiliary activities such as docking, pilotage, lighterage, vessel salvage, see 52.22 - cargo handling, see 52.24 - renting of commercial ships or boats without crew, see 77.34
50.40	Inland freight water transport	- transport of freight via rivers, canals, lakes and other inland waterways, including inside harbours and ports - renting of vessels with crew for inland freight water transport	- cargo handling, see 52.24 - renting of commercial ships or boats without crew, see 77.34
52.10	Warehousing and storage	- operation of storage and warehouse facilities for all kinds of goods: <ul style="list-style-type: none"> o operation of grain silos, general merchandise warehouses, refrigerated warehouses, storage tanks etc. - storage of goods in foreign trade zones - blast freezing	- parking facilities for motor vehicles, see 52.21 - operation of self storage facilities, see 68.20 - rental of vacant space, see 68.20
52.22	Service activities incidental to water transportation	- activities related to water transport of passengers, animals or freight: <ul style="list-style-type: none"> o operation of terminal facilities such as harbours and piers o operation of waterway locks etc. o navigation, pilotage and berthing activities o lighterage, salvage activities 	- cargo handling, see 52.24 - operation of marinas, see 93.29

NACE	NAME	INCLUDES	EXCLUDES
		<ul style="list-style-type: none"> o lighthouse activities 	
52.24	Cargo handling	<ul style="list-style-type: none"> - loading and unloading of goods or passengers' luggage irrespective of the mode of transport used for transportation - stevedoring - loading and unloading of freight railway cars 	<ul style="list-style-type: none"> - operation of terminal facilities, see 52.21, 52.22 and 52.23
55.10	Hotels and similar accommodation	<p>This class includes the provision of accommodation, typically on a daily or weekly basis, principally for short stays by visitors. This includes the provision of furnished accommodation in guest rooms and suites. Services include daily cleaning and bed-making. A range of additional services may be provided such as food and beverage services, parking, laundry services, swimming pools and exercise rooms, recreational facilities as well as conference and convention facilities.</p> <p>This class includes accommodation provided by:</p> <ul style="list-style-type: none"> - hotels - resort hotels - suite/apartment hotels - motels 	<ul style="list-style-type: none"> - provision of homes and furnished or unfurnished flats or apartments for more permanent use, typically on a monthly or annual basis, see division 68
55.20	Holiday and other short-stay accommodation	<p>This class includes the provision of accommodation, typically on a daily or weekly basis, principally for short stays by visitors, in self-contained space consisting of complete furnished rooms or areas for living/dining and sleeping, with cooking facilities or fully equipped kitchens. This may take the form of apartments or flats in small free-standing multi-storey buildings or clusters of buildings, or single storey bungalows, chalets, cottages and cabins. Very minimal complementary services, if any, are provided.</p> <p>This class includes accommodation provided by:</p> <ul style="list-style-type: none"> - children and other holiday homes - visitor flats and bungalows - cottages and cabins without housekeeping services - youth hostels and mountain refuges 	<ul style="list-style-type: none"> - provision of furnished short-stay accommodation with daily cleaning, bed-making, food and beverage services, see 55.10 - provision of homes and furnished or unfurnished flats or apartments for more permanent use, typically on a monthly or annual basis, see division 68
55.30	Camping grounds, recreational vehicle parks and trailer parks	<ul style="list-style-type: none"> - provision of accommodation in campgrounds, trailer parks, recreational camps and fishing and hunting camps for short stay visitors - provision of space and facilities for recreational vehicles - This class also includes accommodation provided by: protective shelters or plain bivouac facilities for placing tents and/or sleeping bags 	<ul style="list-style-type: none"> - mountain refuge, cabins and hostels, see 55.20
55.90	Other accommodation	<p>This class includes the provision temporary or longer-term accommodation in single or shared rooms or dormitories for students, migrant (seasonal) workers and other individuals.</p>	

NACE	NAME	INCLUDES	EXCLUDES
		This class includes: <ul style="list-style-type: none"> - student residences - school dormitories - workers hostels - rooming and boarding houses - railway sleeping cars 	
77.34	Renting and leasing of water transport equipment	<ul style="list-style-type: none"> - renting and operational leasing of water-transport equipment without operator: <ul style="list-style-type: none"> o commercial boats and ships 	<ul style="list-style-type: none"> - renting of water-transport equipment with operator, see division 50 - renting of pleasure boats, see 77.21



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Sound analysis, inspiring ideas