EMODnet Thematic Lot n° 7 - Human Activities

15th Bi-monthly Report

Reporting Period: 07/03/2016 – 04/05/2016

Date: 04/05/2016

Contents

1. Highlights in this reporting period

- 3 initial blogs published with more in work.
- Updates to Fish Catches, Protected Areas, Mariculture and Undersea Cables.
- On 11th January a questionnaire to evaluate the Human Activities portal was sent to 449 potential users. We collected users' feedback until the end of February. During this period 107 questionnaires were compiled. Main findings:
  - ✓ Wind farms theme received the highest overall score
  - ✓ Cultural heritage theme received the lowest overall score
  - ✓ Lineage section of the metadata should be improved in terms of accessibility and information completeness
  - ✓ More emphasis should be place on promotion activities. EMODnet Human Activities seems to be very well known and used in the EMODnet community, but not in the general public.

2. Work package updates

WP 2 – Development of the portal and maintenance

Progress:

- 3 initial blogs published with more in work.
- Updates to Fish Catches, Protected Areas, Mariculture and Undersea Cables.

Next Steps:

- Implementation of new datasets as they become available.
- Regular blog posting.

WP 3 – Data collection (All)

Cultural heritage

We asked again for a quote concerning extractions from lighthouses databases of the two main international sources:

- Lighthousesrus.org , who provides interesting descriptions of the different lighthouses : age, description of the edifice, pictures…. allowing to assess the heritage value of each lighthouse.
- Marine Traffic, whose database is regularly updated.

Answers are still pending.

Dredging

New data from Bulgaria (2006-2015) has been received from the Basin Directorate for Water Management in the Black Sea Region – Varna (contact person: Tanya Milkova). In addition, new data from the Baltic Sea has been collected from the 'Dredging sites points' shapefile, that includes capital and maintenance dredging activities in 2014.

Environment

Data have been updated to the latest version of 'CDDA v13' and "Natura 2000 End 2015' (now including Croatia), both published by the EEA.

CDDA - two new fields have been added: one field with a link to IUCN categories, and one field with the Country name in English.

Natura 2000 End 2015 - two new fields have been added: one field with a link to the Habitats and Birds directives, and one field to explain the meaning of the 'Site type' field.

Fisheries

Fishery zones (FAO and ICES), and fish catches by FAO statistical area - 5 related tables updated, containing 110.720 records, Fish catches was updated with 2014 data. 2015 data are not yet available for most Member States.

Main Ports

Goods - Data was downloaded from 23 EU Member states plus Norway (24 countries in total) from the following Eurostat data portal: Maritime transport - Goods (gross weight) - Quarterly data - Main ports - One detailed table per each reporting country - by direction, partner entity and type of cargo (detailed classification) (mar_go_qm_detl).

Data was downloaded on a quarterly basis from Q1 2013-Q4 2014. Data is reported in 1.000 tonnes.

Passengers - Data was downloaded for 21 EU member states plus Norway form the following Eurostat data portal:
Maritime transport - Passengers - Quarterly data - Main ports - by direction and type of traffic (national and international) (mar_pa_qm)

The dataset included 541 individual ports from 22 countries and both International and national traffic on a quarterly basis between 2013 and 2015. In 2015, there were incomplete data for all countries in Q4 of 2015 except Croatia. For this dataset Croatia is the only country included for 2015 data. Data is reported in units (1.000 passengers).

Vessels - Data was downloaded from 23 EU Member states plus Norway (24 countries in total) form the following Eurostat data portal:
Maritime transport - Vessel traffic - Quarterly data - Main ports - Number and gross tonnage of vessels - by type and size of vessels - Direction: inwards only - year 2006 onwards (mar_tf_qm)

The dataset included 652 individual ports from 24 countries based on vessel type and size.

The data was downloaded individually for each reporting country on a quarterly basis for 2013 and 2014. Data is reported in two units of measure: units and 1.000 tonnes

Mariculture

By the end of March 2016, we re-launched the data call among missing MS fisheries ministries for mariculture datasets. In particular, we contacted Germany, Croatia, Portugal and Malta, through either Veterinary Directorates or Fisheries Directorates.

HR: The Croatian Ministry of Agriculture (Veterinary Directorate) answered that data collection under the "CAPS programme" was not finished yet. They expect to have the marine fish and shellfish farms coordinates by the end of May.

DE: We received information from the German Federal Ministry of Food and Agriculture on 28/04/2016. They received some information from the Federal States about active marine farms but are still reluctant to give any coordinates for data protection reasons (except in Mecklenburg-Pommerania) but we will try to get at least points coordinates (center of the farming areas). However, they provided details on the farming establishments/areas and their size in each federal state, as follows:

- *Mecklenburg-Pommerania*: one aquaculture establishment in the Baltic sea in breeding rainbow trout (production: 3-5 tons per year).
- *Schleswig Holstein*: production of farmed marine shellfish (mussels) up to 20,000 tons per year on approximately 1,650 hectares (about 60 districts) in the North Sea and a small part in the Baltic Sea. In addition, there is one establishment which produces oysters (Crasostrea gigas) in the North Sea on approximately 30 hectares. Last, in the Firth of Kiel there is one small farm for rainbow trout.

No answers were received from Portugal and Malta fisheries ministries. It will need further efforts from our side.

Other forms of area management

In reference to maritime boundaries, we are checking the comments of Ireland. And we are also checking the website from The European Environment Agency. In the 2015 version of the dataset, several corrections were made in the Kalogeroi Islands and two other Greek little islets, as well as in the peninsula of Porkkala.

Waste Disposal

We are updating the information to improve the data analysis report. Therefore, we have sent emails and we have contacted the institutions asking for waste disposal data.
As a result of these new requests of information, we have received new data from several countries:

- Portugal from General Directorate for Natural Resources, Safety and Maritime Service sent information from 2014.
- Latvia added her information geo reference
- Ireland from Marine Institute of Marine Environmental and Food Safety Services
- Bulgarian from Black Sea Basin Directorate to the Ministry of Environment and Waters
- Lithuania from Environment Protection agency, Marine Research Department sent information until 2015
- Slovenia answers that since 2009 no material from dredging works or other kind of construction works was disposed at sea.
- Germany and Estonia addressed us to Helcom

Wind Farms

We are checking to update:

- http://www.4coffshore.com/offshorewind
- http://ec.europa.eu/maritimeaffairs/atlas/maritime_atlas/#lang=EN;p=w;pos=11.754:54.605:4;bkgd=5:1;gra=0;mode=0;theme=3:0.78:1:0,88:1:1:1;

WP 5 – Data harmonisation (All)

Aggregate extraction and dredging

Updated dataset has been harmonised. Metadata and data analysis reports have been also updated.

Dredging

Updated dataset has been harmonised. Metadata and data analysis reports have been also updated.

Environment

Updated dataset has been harmonised. Metadata and data analysis reports have been also updated.

Fisheries

Updated dataset has been harmonised. Metadata and data analysis reports have been also updated.

Main Ports

Goods - the quarterly data has been aggregated on an annual basis for each reporting country. This was then added to the (annual) 2001-2012 data for harmonization. For 2015 full data was not available.

Passengers – the quarterly data has been aggregated on an annual basis for each reporting country. For 2015, there were incomplete data for all countries in Q4 of 2015 except Croatia. For this dataset Croatia is the only country included for 2015 data.

Vessels – the quarterly data has been aggregated on an annual basis for each reporting country. For 2015 data was incomplete for Q4 2015 for all reporting counties.

Mariculture

Finfish dataset: In the last version from April 11 2016, data for Scotland and Ireland were updated. In Ireland, the BIM provided a completely new dataset, more accurate than the one previously available but which required a different harmonisation process. The new dataset provides polygons instead of points and provides license status but no company name.

As a result two fields were added into the finfish dataset:

- Status (provided only in Ireland and the UK), which indicates whether the sites are active or not. At this stage this field is not fully harmonised as the information is based on different definitions in the UK and in Ireland. In the former, the site is indicated as active if there has been a production within the last 3 years and inactive otherwise, in the latter the status corresponds to detailed licence status (renewed, expired, in application..). Further investigations will be carried out with the two countries to figure out the most accurate way to harmonise the information.
- Point information, which indicates if the data points correspond to the data provided by the Source or if they have been estimated by the Emodnet team when Polygons were provided (in Ireland only).

Ocean energy facilities

Updated datasets for ocean energy projects and test sites have been harmonised. Metadata and data analysis reports have been also updated.

Other forms of area management

We are checking, geo referencing and updating data collection

Waste Disposal

We are checking, geo referencing and updating data collection

Wind Farms

We are checking, geo referencing and updating data collection

WP 8 – Monitoring of effectiveness in addressing users' needs

The purpose of the questionnaire was to monitor the effectiveness of the portal in addressing users' needs. The collected feedback will feed into a fine-tuning plan, thus helping us improve our service. The panel of participants was composed by 449 people, divided by organization they belong.

Based on our experience gained within the past two years and a half, and suggestions of our colleagues from the other lots and check points, we selected a sample of individuals from a target population to conduct our survey. The survey lasted one month, starting on the 11th of January 2016, when the invitation email was sent.

The survey was created using Limesurvey (formerly PHPSurveyor) , a free and open source on-line survey application written in PHP based on a MySQL, PostgreSQL or MSSQL database, distributed under the GNU General Public License. It is a web server-based software that makes it possible to develop and publish an on-line survey, create and manage the participants panel, send email invitations to fill the survey, collect responses, create statistics, and export the resulting data to other applications.

The questionnaire included 37 questions organized in 5 groups:

1. User groups (mandatory questions);
2. Dataset questions (mandatory question);
3. Datasets rating (mandatory questions);
4. Future datasets (mandatory question);
5. General questions about the website.

Below is an overview of the survey results.

User groups

We had 106 full responses and 51 incomplete responses. The vast majority of respondents work for a research organization (65%) and 26,5% are involved in at least one of the following groups: Member States Expert group on MSP, MSFD actors/WG DIKE, (former) MODEG.

Dataset questions

Respondents were given the possibility to evaluate one or more datasets. 'Environment' was the one which received more evaluations:

Dataset	No. of respondents
Aggregate extraction	40
Cultural heritage	22
Dredging	39
Environment	**79**
Fisheries	46
Hydrocarbon extraction	32
Main ports	32
Mariculture	22
Ocean energy facilities (other than wind farms)	36
Other forms of area management / designation	40
Pipelines and cables	34
Waste disposal	30
Wind farms	42

Datasets rating

In this section respondents were asked to evaluate on a scale from 1 (very poor) to 5 (excellent) the datasets of their interest in terms of:

1. **Spatial coverage** - if the coverage of the dataset (geographical area where data was collected, a place which is the subject of a collection) is adequate or could be improved.

2. **Information accuracy**. Accuracy can be defined as the degree or closeness to which the information on a map matches the values in the real world. In GIS data, accuracy can be referred to a geographic position, but it can be referred also to attribute, or conceptual accuracy. Precision refers how exact is the description of data. Precise data may be inaccurate, because it may be exactly described but inaccurately gathered. (Maybe the surveyor made a mistake, or the data was recorded wrongly into the database);

3. **Topology accuracy**. Topology is the arrangement that constrains how point, line, and polygon features share geometry. Topology defines and enforces data integrity rules (for example, there should be no gaps or overlapping between polygons, etc.);

4. **Added value of information**. Does this information, as it has been processed and made available in EMODnet, have an added value compared with the same information available elsewhere?

5. **Metadata: level of information**. This is a judgment of an overall quality of the metadata;

6. **Metadata: clarity of information on process history of the dataset**. This is a statement on process history and/or overall quality of the spatial dataset (lineage section of the metadata);

7. **Metadata: clarity of information on data sources**. Is it sufficiently clear who the primary data sources are?

8. **Metadata: clarity of information on contact points**.

Cultural heritage theme received the lowest overall score. Many respondents commented that it should contain more datasets such as locations of shipwrecks, location of archeological sites, scenic routes onshore (e.g. Wild Atlantic Way), and more detailed information on already available lighthouses (height, size, active/inactive, flashing intervals, organization in charge of maintaining lighthouse). It should be noted that shipwreck dataset should be available online soon.

Wind farms received the highest overall score. However, respondents noted that it is a rapidly changing human activity and would need more frequent updates. Moreover it should contain more detailed metadata, information on licensing authority, turbine type, individual capacity, water depth of site, foundation type, power takeoff methodology (offshore substation vs HVDC cabling).

Moreover, it was pointed out by the respondents that the lineage section of the metadata should be improved in terms of accessibility and should provide more detailed informations.

Datasets rating – arithmetic mean								
	Spatial coverage	Information accuracy	Topology accuracy	Added value of information	Metadata: level of information	Metadata: clarity of information on process history of the dataset	Metadata: clarity of information on data sources	Metadata: clarity of information on contact points
Aggregate extraction	3,89	3,39	3,67	3,44	3,52	3,31	3,6	3,54
Cultural heritage	3,53	2,93	3,42	3,21	3,09	2,5	2,55	3
Dredging	3,71	3,29	3,32	3,08	2,76	2,6	3,19	3,04
Environment	3,73	3,73	3,66	3,53	3,57	3,41	3,49	3,43
Fisheries	3,71	3,21	3,33	3,35	3,45	3,24	3,45	3,54
Hydrocarbon extraction	4,14	3,78	3,62	3,7	3,75	3,35	3,8	3,85
Main ports	4,37	4	3,94	3,72	3,89	3,41	3,94	3,65
Mariculture	3,6	3,46	3,46	3,69	3,75	3,58	3,75	3,83
Ocean energy facilities	3,87	3,82	3,83	3,74	3,81	3,48	3,55	3,76
Other forms of area management	3,83	3,23	3,43	3,38	3,42	3,1	3,29	3,4
Pipelines and cables	4,14	3,8	3,7	3,48	3,38	3,29	3,67	3,67
Waste disposal	3,65	3,65	3,53	3,4	3,13	3	3,29	3,53
Wind farms	4,32	4,04	4,11	3,96	3,7	3,44	3,63	3,71

Future datasets

We also asked users which new datasets they would like to be covered in the future phase of EMODnet (they could choose more than one answer).

Answer	No. of respondents
Shipping density	53
Oil and gas pipelines	47
Carbon capture & storage	26
Fish landings in EU ports	43
TAC and quotas	20
Fishing effort	50
Tourism	47
Maritime spatial plans	55
Areas used for military purposes	34
Marine and beach litter	49
Industrial and domestic wastewater	30
Thermal plants	17
Desalination plants	21
Ballast water management	24
Shipping accidents	32
Oil discharging	29
Fishing fleet	37
Urban generated waste	26
*Other	10

*Other suggested datasets:

- plastic particles;
- mammal stranding;
- 3rd country info;
- real time marine traffic of all kind and size;
- SST (sea surface temperature) /SSS (sea surface salinity);
- Coastal Risk Mitigation Efforts;
- surface sediments;
- geophysics, geochemistry;

Shipping density (based on AIS data) and oil and gas pipelines were the two more requested datasets. Both datasets were supposed to be made available under the current phase of EMODnet, but the sources contacted refused to provide data.

Fish landings in EU ports, on the other hand, is not included in EMODnet Human Activities contract but will be made available soon, based on EUMOFA data.

General questions about the website

In the website general questions group, we asked the following questions:

- How users would rate our website (using the same scale from 1, very poor, to 5, excellent), plus comments (free text) for improving it;

Website key characteristics	Arithmetic mean
Overall content	3,82
Overall look / visual appeal	3,93
Ease of navigation across sections (is it logical and clear and you are able to find what you need quickly)	3,89
User-friendliness of the map	3,99
User-friendliness of data search	3,72

We received generally positive feedback in this section. However it was noted that the export tools could be improved, and that the map search is sometimes slow.

- How they learned about EMODnet Human Activities

How did you learn about EMODnet Human Activities?	No. of respondents
I was involved in the consultation phase and preparatory action	46
I am involved in EMODnet	66
I attended a conference	17
Through EMODnet Central Portal	19
Through DG MARE website	5
Through social media	1
Colleague/someone I know told me	21
Search engine	2
I've learned about it just now thanks to this questionnaire	6
Link from other page	2
I don't remember	0
Other	4

It emerged that the vast majority of the respondents know about EMODnet, because they are directly involved or were involved in the consultation phase and preparatory action. Only few people learned about the portal via search engine, social media or other form of communication channels. In order to reach a wider audience we should put more emphasis on promotion activities.

- How often they visit EMODnet Human Activities

How often do you visit our website?	No. of respondents
Several times a week	4
Several times a month	11
About once a month	15
Less than once a month	15
Occasionally	32
Everytime I learn about new update	5
This is my first visit here	18
No answer	6

- How likely they would recommend and revisit our website

How likely are you to recommend and revisit our website?	No. of respondents
Very likely	27
Likely	52
Unsure	15
Unlikely	1
Extremely_unlikely	2
No answer	9

Over the next two weeks a fine-tuning plan, outlining which modifications are to be taken into account, will be drafted.

3. Updates on Progress Indicators

Indicator 1 - Volume of data made available through the portal

Activity		Type/format				
		Points	Lines	Polygons	Related tables/records	Raster tiles/ cells
Cultural heritage						
Mariculture	Shellfish	294				
	Finfish	50				
Aggregate extraction						
Dredging (e.g. navigational)						
Ocean energy facility						
Other forms of area management/designation						
Waste disposal (solids, including dredge material, dumped munitions, marine constructions)	Dumped munitions					
	Dredge spoil dumping					
Wind farms						
Fisheries	Fishery zones (FAO and ICES)					
	Fishery catches by FAO statistical area				5 related tables updated, containing 110.720 records	
Hydrocarbon extraction	Boreholes					
	Active licenses					
	Offshore installations					
Pipelines and cables	Landing stations (cables)					
	Schematic cables					
	Actual route locations (cables)					
Environment	Protected areas			The whole database has been updated. Only the coastal and marine protected areas have been published: 4.677 Natura 2000 features and 12.135 Nationally designated areas		
	State of bathing waters					
Commercial shipping, recreational shipping						
Major ports						

Aggregates, Dredging, Wind farms and Protected areas datasets have been completely reviewed. We consider all the stored features and related records as new data.

Indicator 4 - Volume of each type of data and of each data product downloaded from the portal

1st March 2016 to 30th April 2016

Included are instances of downloads and initial requests for WFS links. Statistics exclude Human Activities and Central Portal partners.

Dredging	20
Wind Farms	16
Aggregate Extraction	15
Telecommunication Cables (schematic)	14
CDDA	13
Natura2000	11
Telecommunication Cables (actual)	11
Hydrocarbon Extraction Active Licenses	10
Main Ports	10
Dredge Spoil Dumping	9
Dumped Munitions	9
Hydrocarbon Extraction Boreholes	9
Maritime Boundaries	7
Telecommunication Landing Stations	7
State of Bathing Waters	6
Fish Catches	5
Offshore Installations	5
Shellfish Production	5
Lighthouses	3
Advisory Councils	2
Finfish Production	2
OSPAR Maritime Area	2
Barcelona Convention	1
Bucharest Convention	1
FAO Fishery Statistical Areas	1
Ocean Energy Facilities	1
HELCOM Maritime Area	0
ICES Statistical Areas	0

Indicator 5 - Organisations that have downloaded each data type

Users are asked for their organisation name when downloading data or requesting WFS links. It is a non-mandatory field.

1st March 2016 to 30th April 2016

- Agri-Food and Biosciences Institute - AFBI (Environment), UK
- The Baltic Pavilion (Other), LV
- BirdLife (Environment), BE
- Bist LLC (Fisheries and Agriculture)
- Centre of Marine Science of the University of the Algarve (Research), PT
- Centre of Environmental and Marine Studies (CESAM) - University of Aveiro (Environment), PT
- Centre for Maritime Research and Experimentation - CMRE (Research)
- Collecte Localisation Satellite (Environment), FR
- EcoAqua Project - The University of Las Palmas de Gran Canaria - ULPGC (Research), ES
- ETT (Research), IT
- Fugro EMU (Environment),UK
- G-tec (Other), BE
- Heriot-Watt University (Education), UK
- CNR-IAMC - The Institute of Marine Sciences / Institute for Coastal Marine Environment (Research), IT
- Institute for Agricultural and Fisheries Research (Research), BE
- JNCC (Research), UK
- Plymouth University (Education), UK
- Royal HaskoningDHV (Environment), UK
- RPS Group (Physical planning), Ireland
- Swedish Geological Survey (Environment), SE
- Thünen - Institute of Sea Fisheries (Research), DE
- The George Washington University (Education), US
- University of Veterinary Medicine - TiHo (Education), DE
- University College Cork - UCC (Education), IE
- University of Turku (Environment), FI
- University of Palermo (Fisheries and agriculture), IT
- University of Bucharest (Research), RO
- University of the West of England (Environment), UK
- University of Thessaly (Education), GR
- University of York (Environment), UK
- VisNed (Fisheries and agriculture), NL

Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes

1st March 2016 to 30th April 2016

Statistics include all visitors including partners.

View Data

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Mar-16	455	02:38	643	259	56.92%
Apr-16	428	03:13	573	253	59.11%

Home

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Mar-16	147	00:57	188	42	28.57%
Apr-16	184	01:20	234	105	57.07%

Search Data

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
Mar-16	223	00:44	334	125	56.05%
Apr-16	219	01:07	352	109	49.77%

Indicator 7 - List of what the downloaded data has been used for (divided into categories e.g. Government planning, pollution assessment and (commercial) environmental assessment, etc.)

1st March 2016 to 30th April 2016

Users must select their sector when downloading data or requesting WFS links.

1	Research	25.82%
2	Environment	23.77%
3	Fisheries and agriculture	19.67%
4	Education	13.93%
5	Other	9.02%
6	Physical planning	4.10%
7	Energy	2.05%
8	Forestry	0.82%
9	Mining	0.41%
=	Tourism	0.41%

Annex 1: Full survey report

Total records in survey: 106

USER GROUPS

1. WHAT TYPE OF SECTOR ARE YOU INVOLVED IN?

Answer	Percentage
Research organizations	65,09%
International/regional organizations	20,75%
Academia	11,32%
Member States administrations	14,15%
EU (including agencies)	5,66%
Students	1,89%
Individual experts	3,77%
Industry	1,89%
EMODnet Secretariat	0,94%
NGOs	3,77%
*Other	5,66%

*Other:

- PRESS
- Legal Entity of Public Law
- Emodnet Checkpoint
- Media
- National funding agency
- Hydrographic office

2. ARE YOU A MEMBER OF ANY OF THE FOLLOWING GROUPS?

Answer	Percentage
Member States Expert group on MSP	9,43%
MSFD actors/WG DIKE	11,32%
MODEG	5,66%
No, I'm not	77,36%

3. IN WHICH COUNTRY ARE YOU BASED?

Answer	Percentage
Italy	24,5%
Netherlands	8,5%
France	7,5%
Spain	6,6%
Belgium	5,7%
Ireland	5,7%
Sweden	5,7%
Romania	4,7%
United Kingdom	4,7%
Denmark	2,8%
Finland	2,8%
Greece	2,8%
Portugal	2,8%
Germany	1,9%
Iceland	1,9%
Ukraine	1,9%
Bulgaria	0,9%
Cyprus	0,9%
Latvia	0,9%
Lithuania	0,9%
Poland	0,9%
Slovenia	0,9%
Georgia	0,9%
Norway	0,9%
Russian Federation	0,9%
Turkey	0,9%

DATASET QUESTIONS

1. **WHICH DATASETS ARE YOU INTERESTED IN?** (You can check more than one option)

Answer	Percentage
Aggregate extraction	37,74%
Cultural heritage	20,75%
Dredging	36,79%
Environment	74,53%
Fisheries	43,40%
Hydrocarbon extraction	30,19%
Main ports	30,19%
Mariculture	20,75%
Ocean energy facilities (other than wind farms)	33,96%
Other forms of area management / designation	37,74%
Pipelines and cables	32,08%
Waste disposal	28,30%
Wind farms	39,62%

2. **ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE AGGREGATE EXTRACTION DATASET IN TERMS OF:**

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	0	3	4	14	7	11	3,89	0,92
Information accuracy	1	4	6	9	3	16	3,39	1,08
Topology accuracy	0	2	9	8	5	15	3,67	0,92
Added value of information	2	2	8	9	4	14	3,44	1,12
Metadata: level of information	0	3	8	9	3	16	3,52	0,9
Metadata: clarity of information on process history of the dataset	3	5	6	5	7	13	3,31	1,38
Metadata: clarity of information on data sources	3	1	4	12	5	14	3,6	1,22
Metadata: clarity of information on contact points	1	1	9	10	3	15	3,54	0,93

- **DO YOU HAVE ANY SUGGESTIONS ON THE AGRREGATE EXTRACTION DATASET?**
  - ✓ Too much N/A
  - ✓ Use of INSPIRE Data Specifications for Aggregate data models

- ✓ No data from Iceland in the EMODnet portal but Iceland GeoSurvey (ÍSOR) could be part of the Human Activities Group and deliver some data.
- ✓ Visually it would be a plus if it were possible to view those that are ongoing an those where extraction has ended. It would also be helpful to add extraction zones where there is operations on restoring the environmental rehabitiation characteristics. It would also be a plus if third coutnries and the extraction wzones there could be displayed, wherever European companies are operational, it would help add value to the overall dataset.
- ✓ Have you considered mapping aggregates that have been used for beach replenishment? this information would be interesting from a human activities perspective as it would inform MSP and tourism (direct societal benefit).
- ✓ more precise spatial information of activities such as extraction and dredging.
- ✓ Year of reference for the informations should be added in the metadata.
- ✓ Metadata should give more informations on what field name refers. For example 'Year' what does it correspond to? Year of attribution of the license i guess but it's not so clear. Quantity extracted and Quantity permitted should be better explained too
- ✓ On the viewer (when you ask for information on a point) i think that some informations are missing although it is described in the metadata.
- ✓ I would want more than one link to web source if possible and perhaps a seperate window where all relevant sources may by kept up to data and made available.
- ✓ An extension of the temporal scale would greatly benefit to the data set. Does the mentioned values concern the indicated year or a period of several years?
- ✓ Important remark: links to pdf sources are not functional. At least, indicate the full reference.
- ✓ For detailed research, intensity per m² is necessary (black box data coupled to logbook data), which is not available now.
- ✓ No information on the Black Sea
- ✓ For the UK the area involved reports are also a useful source of information (e.g. http://www.thecrownestate.co.uk/media/438891/ei-marine-aggregate-area-involved-17th-report.pdf) and these provide polygons of EMS data for aggregate extraction. I feel that the information as presented isn't all that useful as you cannot download the relevant polygons to show you where aggregate extraction is occurring. This is a problem of data access as much as anything, and I am not sure EMODNET can make a really useful portal unless data becomes more freely available.

3. **ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE CULTURAL HERITAGE DATASET IN TERMS OF:**

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	2	1	3	5	4	8	3,53	1,36
Information accuracy	2	2	6	3	1	9	2,93	1,14
Topology accuracy	2	0	2	7	1	11	3,42	1,24
Added value of information	0	4	4	5	1	9	3,21	0,97
Metadata: level of information	2	1	3	4	1	12	3,09	1,3
Metadata: clarity of information on process history of the dataset	2	3	3	2	0	13	2,5	1,08
Metadata: clarity of information on data sources	4	1	2	4	0	12	2,55	1,37
Metadata: clarity of information on contact points	3	0	3	4	1	12	3	1,41

- **DO YOU HAVE ANY SUGGESTIONS ON THE CULTURAL HERITAGE DATASET?**
  - ✓ Cultural heritage associated with Coastguard Stations around Ireland and also UK?
  - ✓ Cultural heritage of marine locations of UNESCO value e.g. Skellig Michel is one example of a marine UNESCO site in Europe?
  - ✓ Does cultural heritage include other coastal historical facilities?
  - ✓ I wish it would contain more datasets
  - ✓ No data from Iceland in the EMODnet portal but Iceland GeoSurvey (ÍSOR) could be part of the Human Activities Group and deliver some data. Information: ogmundur.erlendsson@isor.is
  - ✓ Including locations of shipwrecks and more diversified cultural heritage activities and or locations would add value. other suggestions would be to add height, size of lighthouses, date of build, final locations of relocations, partially or completely destroyed, etc..
  - ✓ archaeological sites?
  - ✓ As checkpoint leaders to answer your point or match their assessment Tools and yours
  - ✓ For this topic I was much more expected location of archeological sites (if existed)
  - ✓ Value of "Removed, relocated or destroyed debatable.
  - ✓ Link to lighthouse image or thumbnail.
  - ✓ Lighthouse Characteristics e.g. active / inactive.
  - ✓ If active: Light characteristics...flashing intervals etc.
  - ✓ Organisation in charge of maintaining lighthouse e.g. Commissioners of Irish Lights for Fastnet but Dingle Harbour Commissioners for Dingle lighthouse.
  - ✓ Other Areas that could be included here:
    - Geoparks e.g. Copper Coast Co. Waterford. Ireland
    - Shipwrecks e.g. RMS Lusitania, Spanish Armada sites etc
    - Scenic Routes onshore: E.g. Wild Atlantic Way.
    - Visitor's Centres

4. **ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE DREDGING DATASET IN TERMS OF:**

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	2	7	12	6	10	3,71	1,01
Information accuracy	1	6	5	9	3	14	3,29	1,12
Topology accuracy	2	4	5	12	2	13	3,32	1,11
Added value of information	2	6	9	6	3	12	3,08	1,13
Metadata: level of information	1	11	8	3	2	13	2,76	1,01
Metadata: clarity of information on process history of the dataset	3	11	6	3	2	13	2,6	1,12
Metadata: clarity of information on data sources	3	6	4	9	4	12	3,19	1,3
Metadata: clarity of information on contact points	1	8	6	9	1	13	3,04	1,02

- **DO YOU HAVE ANY SUGGESTIONS ON THE DREDGING DATASET?**
  - ✓ Update links for Dutch data. Use national sources
  - ✓ Link to Web Sources leads sometimes to "404 Page Not Found" => url links are an unreliable source! expecially for long term maintenance
  - ✓ I do not see any Portuguese source of information for dredging data in Portugal.
  - ✓ OSPAR dredging data could be mapped to the INSPIRE Environmental monitoring facilities data specification for harmonisation of spatial data on a European scale?
  - ✓ In addition, linking this data to the OSPAR legislation and other legislation such as the Marine Strategy Framework Directive could add value and enrich data?
  - ✓ I tried linking to a dataset on the OSPAR website but the link was broken.
  - ✓ It would be more useful if you could see the size and shape of the area dredged not just point data.
  - ✓ Links are not working properly to OSPAR webpage for additional information (http://www.ospar.org/content/content.asp?menu=01511400000000_000000_000000. This would need fixing.
  - ✓ There is some errors/mixing up in the data sources in the Baltic which should be sorted out. Some dredging points in Sweden is reported as OSPAR source (e.g. Södertälje, http://www.ospar.org/content/content.asp?menu=01511400000000_000000_000000, the link is dead) although according to the metadata swedish dredging data is from HELCOM and OSPAR is not mentioned as source for the dredging dataset.
  - ✓ HELCOM data is outdated (Updated in 11/2015)
  - ✓ It is absolutely important that its clear if dredging is ongoing or halted, icons for ongoing and [ast are adviseable, it would also be helpful if dredging activities in third countries are displayed, this can easily be obtained by using information through permits of countries present in bilateral relations with the EU in UFM etc. would help add value to info in giving an overall picture.

- ✓ Check your web source links, some of them may not be a relevant source of information. The ospar.org website does not work as a source link, check your NE Atlantic points.
- ✓ Unsure on what meta data would be useful here but it would seem that additional fields could be added...Currently useful in determining where dredging is taking place but no info on material...e.g. dredging sand deposits as in Kilmore Quay or silt deposits as in Cork Harbour? Info on Authority resoponsible for dredging would be useful given the potential for pollution.
- ✓ There are more info available about dredging the in the Adriatic Sea from Regione Emilia Romagna.
- ✓ The most accurate information redgarding dredged areas can be found in official Nautical Chart products published by European Hydrographic Offices. This is valid for many of the datasets you mention in your survey.
- ✓ data for belgium --> link not working?
- ✓ I do not find the dataset very useful because it only provides points of where navigational dredging occurs - detail on the amount extracted is useful though. The OSPAR link is broken: http://www.ospar.org/content/content.asp?menu=01511400000000_000000_000000

5. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE ENVIRONMENT DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	3	4	14	33	13	11	3,73	0,99
Information accuracy	1	5	12	38	8	14	3,73	0,84
Topology accuracy	1	3	16	33	5	20	3,66	0,78
Added value of information	2	7	17	25	9	18	3,53	1
Metadata: level of information	1	10	13	23	11	20	3,57	1,04
Metadata: clarity of information on process history of the dataset	2	12	15	20	10	19	3,41	1,1
Metadata: clarity of information on data sources	3	8	15	26	9	17	3,49	1,06
Metadata: clarity of information on contact points	2	9	21	17	11	18	3,43	1,06

- **DO YOU HAVE ANY SUGGESTIONS ON THE ENVIRONMENT DATASET?**
  - ✓ Could not connect to "Nationally Designated Areas" layer
  - ✓ for "State of Bathing Waters" the source (link) is missing;
  - ✓ Coverage of Natura 2000 could be split into the various Protected Sites designations
    - Special Area of Conservation
    - Special Protected Area
  - ✓ coverage of national Protected Sites legislation could be useful by country. For example, the national legislation in Ireland includes 'Natural Heritage Area' and proposed Natural Heritage Area.

- ✓ Shipwrecks are also Protected sites from an underwater archaeological heritage perspective? Could be useful to include?
- ✓ I have used data from weather stations, so I am not sure whether this is more physical oceanography, rather than environment?
- ✓ Information could be more up to date. The State of Bathing Water information is only from 2014. The 2015 information should be included as soon as it is updated and not on an annual basis. I direct data link should be made.
- ✓ Instead of providing a static copy, a direct link to EEA data should be established.
- ✓ Lack of data from Iceland in the EMODnet portal but Iceland GeoSurvey (ÍSOR) could be part of the Human Activities Group and deliver some data. Information: ogmundur.erlendsson@isor.is
- ✓ I would to see more Information covered especially biological data and chemistry
- ✓ The Environment dataset is the "heaviest" one, the one which is uploaded more slowly and can be hard to enjoy. I would suggest to differentiate better the symbols of Natura 2000 and Nationally Designated Areas. You could also include the "Sites of Community Importance". I could not navigate properly in this dataset. I had to give it up, sorry.
- ✓ I don't like the symbology for the designated areas and the Natura 2000 areas...they are too closely related and hard to view together.
- ✓ Obviously many more categories should be added to this layer.
- ✓ State of Bathing Waters okay. Hard to keep updated...liability issues if swimmers use this information to determine safe locations and come in contact with polluted water. (Thinking of bathing areas adjacent to agricultural areas)
- ✓ More information relating to protected areas is needed. Links to Websites of authorities responsible for enforcement of protected status.
- ✓ It is possible to improve the data about the National protected areas with data from MEDPAN
- ✓ Data sets or proposals how to map MSFD environmental indicators. their spatial distribution/covereage
- ✓ Belgian 'vlaamse banken' area 'covered' by another unclear polygon??
- ✓ The MPA boundaries for the UK (SACs and MCZs) could have a link to their relevant webpages on the JNCC and NE websites (e.g. http://jncc.defra.gov.uk/page-6895) - the metadata lacks a bit in detail.
- ✓ The boundaries are quite thick making it hard to view them all at once and the red colour is a bit overwhelming
- ✓ To have a link between data and literature

6. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE FISHERIES DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	4	8	12	9	11	3,71	1,09
Information accuracy	2	6	7	10	3	17	3,21	1,13
Topology accuracy	3	4	7	12	4	15	3,33	1,18
Added value of information	2	6	5	15	3	14	3,35	1,11
Metadata: level of information	1	5	8	10	5	16	3,45	1,09
Metadata: clarity of information on process history of the dataset	2	5	10	8	4	16	3,24	1,12
Metadata: clarity of information on data sources	2	5	5	12	5	16	3,45	1,18
Metadata: clarity of information on contact points	2	3	8	8	7	17	3,54	1,2

- DO YOU HAVE ANY SUGGESTIONS ON THE FISHERIES DATASET?
  - ✓ Fish Catches up to 2012 is not very actual.
  - ✓ "Fisheries activities could include
    - Fishing Intensity
    - Fisheries Surveys
    - Fish Species distribution"
  - ✓ I have not used fisheries data via the EMODnet portal. But I heard during the EMODnet conference that there is very little data available from EMODnet on fisheries. I would like to change that, if I can, working for a fisheries research institute.
  - ✓ the data is out of date, needs to be more current to be relevant/useful
  - ✓ the additional information are very sporadic and not detailed.
  - ✓ Better resolution data on fishing effort would be of value, based on aggregated VMS data.
  - ✓ extend data coverage and its type
  - ✓ in fisheries it would be of added value to know the shipping fleets, and their country of origin, registration, type of fishing, species commonly present there, history of catch from the area,etc.
  - ✓ No Comment on Fisheries dataset other than I find the differentiation between the different Fisheries Zones useful...not my area of expertise.
  - ✓ The main issue in the Med is to have a stadardize approach to collect fisheries data.
  - ✓ Data set on fish catches for main commercial species by country, fish spawning and nursery grounds for main commercial species
  - ✓ Fishing information are much better, but scientific users, in general, need much precise information in terms of resolution.
  - ✓ data aggregated at high level polygons. More detailed data needed for detailed research (e.G comparison fisheries data within N2000 areas.
  - ✓ Relevant information for MSP are not the one displayed in the portal.
  - ✓ I don't find the fisheries datasets very useful for the purposes I would need (location of fishing activity for status assessments). I think NEAFC data on fisheries closures would be useful to add.

7. **ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE HYDROCARBON EXTRACTION DATASET IN TERMS OF:**

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	0	1	4	8	9	9	4,14	0,89
Information accuracy	0	1	6	7	4	13	3,78	0,88
Topology accuracy	0	2	8	7	4	10	3,62	0,92
Added value of information	0	2	6	8	4	11	3,7	0,92
Metadata: level of information	0	2	4	11	3	11	3,75	0,85
Metadata: clarity of information on process history of the dataset	1	4	3	11	1	11	3,35	1,04
Metadata: clarity of information on data sources	1	1	4	9	5	11	3,8	1,06
Metadata: clarity of information on contact points	0	1	5	10	4	11	3,85	0,81

- **DO YOU HAVE ANY SUGGESTIONS ON THE HYDROCARBON EXTRACTION DATASET?**
  - ✓ direct name of information source and link to source per single borehole/installation e.g. operator, agency, ...
  - ✓ Status of boreholes is largely unknown.
  - ✓ No data from Iceland in the EMODnet portal but Iceland GeoSurvey (ÍSOR) could be part of the Human Activities Group and deliver some data. Information: ogmundur.erlendsson@isor.is
  - ✓ Port that handles the gas/oil/energy of extracted resource.... the company which ships the resource... essence of info is to add value to users, value is linking information..
  - ✓ The Hydrocarbon extraction is the most complete dataset, also because transparency issues of hydrocarbon exploitation are on mature stage compared to other human activities. You could use this dataset to test possible improvements in handling more information.
  - ✓ Useful interface with licence blocks, boreholes and status.
  - ✓ Looking at Corrib field, the metadata is useful, more categories could be added such as field life and field size."
  - ✓ Industry survey data from offshore oil and gas activities e.g. benthic samples, geological data. Some of this is difficult to get and requires industry trust, but some open data sources exist e.g. in the UK and Norway.
  - ✓ Point data isn't all that useful to our work as it is the extent of an activity that is useful to status assessment work. However, it is a good coverage of data and good to have info on operational phase of installations. The MMO NMPi has a lot of useful data for the UK: https://planningportal.marinemanagement.org.uk/#

8. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE MAIN PORTS DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	0	0	2	8	9	13	4,37	0,68
Information accuracy	0	0	6	6	6	14	4	0,84
Topology accuracy	0	0	7	5	6	14	3,94	0,87
Added value of information	0	1	6	8	3	14	3,72	0,83
Metadata: level of information	0	0	7	6	5	14	3,89	0,83
Metadata: clarity of information on process history of the dataset	0	2	9	3	3	15	3,41	0,94
Metadata: clarity of information on data sources	0	1	3	10	4	14	3,94	0,8
Metadata: clarity of information on contact points	0	2	7	3	5	15	3,65	1,06

- DO YOU HAVE ANY SUGGESTIONS ON THE MAIN PORTS DATASET?
  - ✓ Piers and quays - small boat access for maritime tourism and leisure Marinas?"
  - ✓ No data from Iceland in the EMODnet portal but Iceland GeoSurvey (ÍSOR) could be part of the Human Activities Group and deliver some data. Information: ogmundur.erlendsson@isor.is
  - ✓ Port depth should be shown / Port facilities(wind, fuel, etc) - Number of connections - Quay length - Number of cranes + detail
  - ✓ I likie this interface with its separation of Passengers Goods etc...this separation is not immediately apparent for the casual browser but the metadata and statistics is sure to be useful.
  - ✓ A link to the various port authorities websites or contact details of responsible bodies would be good."

9. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE MARICULTURE DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	1	5	4	4	7	3,6	1,18
Information accuracy	0	1	6	5	1	9	3,46	0,78
Topology accuracy	0	1	6	5	1	9	3,46	0,78
Added value of information	0	2	2	7	2	9	3,69	0,95
Metadata: level of information	0	0	4	7	1	10	3,75	0,62
Metadata: clarity of information on process history of the dataset	0	2	1	9	0	10	3,58	0,79
Metadata: clarity of information on data sources	1	1	0	8	2	10	3,75	1,14
Metadata: clarity of information on contact points	0	2	1	6	3	10	3,83	1,03

- **DO YOU HAVE ANY SUGGESTIONS ON THE MARICULTURE DATASET?**
  - ✓ Some countries seem to be missing vor finfish production? France, Sweden, Norway (although not EU).
  - ✓ direct link to information source for each farm
  - ✓ INSPIRE Data Specification on 'Agricultural and Aquaculture Facilities' to harmonise data?
  - ✓ As far as I know, it lacks quite a lot of data, at least for Spanish NW coast, where there are far more shellfish production areas
  - ✓ Addition might include new/old mariculture facility, number of tons of yield/year. More info such as public, private/SME...
  - ✓ More metadata needed. Seaweed cultivation should come under this section.
  - ✓ no clearly designated polygons?
  - ✓ Not all that useful as has limited metadata but the spatial coverage is very good

10. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE OCEAN ENERGY FACILITIES DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	1	6	7	8	13	3,87	1,1
Information accuracy	1	1	5	9	6	14	3,82	1,05
Topology accuracy	1	0	3	11	3	18	3,83	0,92
Added value of information	1	1	4	14	3	13	3,74	0,92
Metadata: level of information	0	2	5	9	5	15	3,81	0,93
Metadata: clarity of information on process history of the dataset	1	5	3	7	5	15	3,48	1,25
Metadata: clarity of information on data sources	2	2	4	10	4	14	3,55	1,18
Metadata: clarity of information on contact points	0	3	5	7	6	15	3,76	1,04

- **DO YOU HAVE ANY SUGGESTIONS ON THE OCEAN ENERGY FACILITIES DATASET?**
  - ✓ Links (source) do not work. Same for wind farms.
  - ✓ preferably individual information source/link for each faciltity instead of claiming that the data set as an aggregation provided by several sources from all across the EU
  - ✓ Ocean Energy Test Facilities?
  - ✓ Ocean Energy Test Site?
  - ✓ ocean energy data currency? Wavebob no longer exists as a test device off Ieland. OE industry is experiencing consolidation and contraction with companies and devices being taken offline. How to manage this in terms of data accuracy may have to be considered?"
  - ✓ COuld include or differentiate those which are currently operational, and those which do not contribute any energy today. Description of facility could make this platform more integrative, as in number of turbines, space, etc...

- ✓ Year of reference for the informations should be added in the metadata.Metadata should maybe give who is the contact for each country (for people needing more informations)
- ✓ Breakdown of sites seems overly comprehensive. Capacity of 100,000.00 MW at Torr Head seems aspirational...but here's hoping! I think overall this needs more work. Areas zoned for prototype testing of ocean energy should be deliniated.
- ✓ The information of the different ocean energy facilities is not completely right (the Sotenäs Project has been delayed so it is not operational, although soon the first 1 MW is ready for delivering electricity). After evaluation 9 more MW will be installed. I Think it has an added value to also show prototypes in different scale in the water, which IEA OES GIS map does not do anymore. It is important that it continuisly get updated to be valid.

11. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE OTHER FORMS OF AREA MANAGEMENT DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	0	8	7	7	16	3,83	1,03
Information accuracy	2	5	4	8	3	17	3,23	1,23
Topology accuracy	1	2	9	5	4	18	3,43	1,08
Added value of information	2	4	3	8	4	18	3,38	1,28
Metadata: level of information	1	3	5	7	3	20	3,42	1,12
Metadata: clarity of information on process history of the dataset	3	4	6	4	4	18	3,1	1,34
Metadata: clarity of information on data sources	3	3	3	9	3	18	3,29	1,31
Metadata: clarity of information on contact points	1	5	3	7	4	19	3,4	1,23

- **DO YOU HAVE ANY SUGGESTIONS ON THE OTHER FORMS OF AREA MANAGEMENT DATASET?**
  - ✓ Some dead links (e.g. HELCOM)
  - ✓ INSPIRE Data Specification on Area management/restriction/regulation zones and reporting units and 'Administrative units' data model consideration?
  - ✓ Reporting units for Marine Strategy Framework Directive, Water Framework Directive, Shellfish Waters Directive, OSPAR admin units etc."
  - ✓ the labelling of the boundaries seems to be wrong (i.e. the 24 nm limit is labelled as the baselines)
  - ✓ I would expect to see the WFD definitions here i.e. transitional, coastal and the RBD's"
  - ✓ I clearly approved the use of ISO quality descriptors however to be meaningfull for the end-user, the difficulty is to make easily visible the requirements or conformance specifications attached to the evaluations.
  - ✓ In addition, another difficulty is to identify the quality evaluations of interest from user points of view in addition to the producer point of view eg for the landing stations, we would appreciate to know the degree of completness of the compilation in EU...So I encourage the approach but

progress has to be done (not only by you but by all stakeholders) to make these information easier to exploit and more valuable to end-users and decision makers. This remark is not limited to the other forms of area management.

- ✓ Areas covered by Marine Plans and areas zoned for MSPs.
- ✓ How will devolution affect the breakdown of the UK's statutory MSPs.
- ✓ Information on the relevant Planning Authority after Sept 2016.
- ✓ A layer on MSP could be a very useful way to track the various EU Member State's approach to the MSP directive, particularly in how each one is weighted and also in how closely neighboring states align their MSPs."
- ✓ Not sure if this question relates to Irish data or EU in general? Irelands data is meant to be a baseline dataset for all purposes.
- ✓ The French maritime limits are inaccurate (12M is mentioned as "Brazil", the straight baseline is inaccurate, ...)and their process very poor ... The maritime limits datasets should be issued from marine charts where the official limits are represented.
- ✓ OSPAR link broken. Boundaries are a little thick

12. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE PIPELINES AND CABLES DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	1	0	3	9	9	11	**4,14**	0,99
Information accuracy	1	1	4	9	5	13	**3,8**	1,06
Topology accuracy	1	0	6	10	3	13	**3,7**	0,92
Added value of information	1	4	3	10	3	12	3,48	1,12
Metadata: level of information	1	4	4	10	2	12	3,38	1,07
Metadata: clarity of information on process history of the dataset	2	3	5	9	2	12	3,29	1,15
Metadata: clarity of information on data sources	1	1	6	9	4	12	**3,67**	1,02
Metadata: clarity of information on contact points	0	3	5	9	4	12	**3,67**	0,97

- **DO YOU HAVE ANY SUGGESTIONS ON THE PIPELINES AND CABLES DATASET?**
  - ✓ Schematic routes are useless for many typical use cases. Also landing stations are not correctly located.
  - ✓ BSH-Conties is good example of proper dataset. Linked to BSH WMS?
  - ✓ Electricity cables or centers's power capcity and performance, general capacity of stations, type of stations, etc.
  - ✓ Useful dataset, very little metadata although good where they exist. Obviously this section is under development.
  - ✓ Should be precised whether for each cable whether it is operational or not. Missing cables on the French waters.

- ✓ Shematic telecom cables are too schematic (portions on land ...)."
- ✓ SIG and KIS-ORCA cables lack useful metadata. Data coverage seems ok but again recommend looking at MMO NMPi for UK data: https://planningportal.marinemanagement.org.uk/#
- ✓ It seems that most of the metadata section is incomplete. It is helpful to have the existing pipelines or cables in one map, but when I look for information about the contact point for a selected pipeline/cable I've to interact with another database. So my search is not so easy.

13. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE WASTE DISPOSAL DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	0	1	8	4	4	12	3,65	0,93
Information accuracy	0	2	5	7	3	12	3,65	0,93
Topology accuracy	0	3	4	8	2	12	3,53	0,94
Added value of information	1	4	1	6	3	14	3,4	1,3
Metadata: level of information	2	4	2	6	2	13	3,13	1,31
Metadata: clarity of information on process history of the dataset	2	5	3	5	2	12	3	1,27
Metadata: clarity of information on data sources	3	2	2	7	3	12	3,29	1,4
Metadata: clarity of information on contact points	2	2	3	5	5	12	3,53	1,37

- **DO YOU HAVE ANY SUGGESTIONS ON THE WASTE DISPOSAL DATASET?**
  - ✓ Errors in metadata (dredged spoil dumping).
  - ✓ HELCOM, data source for the Baltic, is not mentioned ans OSPAR is dep (FI?). No specification on where other Baltic data is from.
  - ✓ Baltic data is outdated:
    - dredged spoil data updated in 11/2015
    - submerged datasets are available from 2013 via HELCOM, and not included
  - ✓ Dredgin info is great, munitions info is not, More detail required as to details, and ongoing oeprations, ares of conflict ? could this be part of cultural heritage absed on date of minition dumping? type and size, quantity, country that dumped etc.
  - ✓ Maybe some information on boundaries for certain types of dumping at sea?
  - ✓ There is no information regarding dumped munitions in the Polish EEZ.
  - ✓ munitition dumping sites for belgium somewhere on land instead of at sea, no clear polygon?
  - ✓ dredge disposal sites for belgium (and contactpoints etc) lacking..."
  - ✓ For the dumped munitions over the French areas, digital data may be provided by SHOM instead of digitalizing this information from marine charts.
  - ✓ Dataset looks good but metadata is lacking to explain what the polygons are and where they have come from. Useful UK data from EA geostore: http://www.geostore.com/environment-agency/

14. ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE WIND FARMS DATASET IN TERMS OF:

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Spatial coverage	0	1	5	6	16	13	4,32	0,9
Information accuracy	0	2	3	13	8	15	4,04	0,87
Topology accuracy	0	0	5	14	8	14	4,11	0,7
Added value of information	0	1	5	12	6	17	3,96	0,81
Metadata: level of information	0	5	4	7	7	18	3,7	1,15
Metadata: clarity of information on process history of the dataset	3	4	4	7	7	16	3,44	1,39
Metadata: clarity of information on data sources	2	4	2	9	7	17	3,63	1,31
Metadata: clarity of information on contact points	1	2	5	11	5	17	3,71	1,04

- **DO YOU HAVE ANY SUGGESTIONS ON WIND FARMS DATASET?**
  - ✓ The name of consortium does not appear anywhere, whereas there is no restriction on it.
  - ✓ Links (source) do not work
  - ✓ add to metadata authorisiung agency and operator as contact per wind farm
  - ✓ Arklow Bank Wind Farm is operational of the east coast of Ireland.
  - ✓ Unsure as to the planned offshore wind farm off the west coast of Ireland?"
  - ✓ Correction in metadata: OSPAR does not provide data for Finland. (Finland is contracting party in OSPAR but is not located in the North Sea)
  - ✓ We have one off the east coast of Ireland that I think if operational? It's showing up only as authorised. I could be mistaken but I think it is operational....
  - ✓ Should be updated as much as possible because of construction of new wind farms
  - ✓ At least for southern Europe, the planned sites are unclear from which source of information they come. There is need for more information about the authorities that released the approval. In this data set you should try to deliver more information (when the operational phase started, if it is in production you should know).
  - ✓ Useful framework and symbology. More information needed for metadata,Licencing authority, Turbine type, number, individual capacity, water depth of site, foundation type, power take off methodology (Offshore Substation vs HVDC cabling - useful for grid planning issues. Landfall sites and operators.
  - ✓ No data for LV added
  - ✓ windfarms is a rapidly changing human activity, might need more 'rapid' updates...
  - ✓ added value of information : the wind farm owner (or company developping the wind farm) should be precised.
  - ✓ Dataset is useful but metadata is lacking information

FUTURE DATASETS

1. **WHICH NEW DATASETS WOULD YOU LIKE TO BE COVERED IN THE FUTURE PHASE OF EMODNET?**

Answer	Count	Percentage
Shipping density	53	50,0%
Oil and gas pipelines	47	44,3%
Carbon capture & storage	26	24,5%
Fish landings in EU ports	43	40,6%
TAC and quotas	20	18,9%
Fishing effort	50	47,2%
Tourism	47	44,3%
Maritime spatial plans	55	51,9%
Areas used for military purposes	34	32,1%
Marine and beach litter	49	46,2%
Industrial and domestic wastewater	30	28,3%
Thermal plants	17	16,0%
Desalination plants	21	19,8%
Ballast water management	24	22,6%
Shipping accidents	32	30,2%
Oils discharging	29	27,4%
Fishing fleet	37	34,9%
Urban generated waste	26	24,5%
*Other	10	9,4%

*Other:

- plastic particles
- mammal strandings
- 3rd country info
- See checkpoint GIS products layers required, produced with checkpoint, disseminated with yours ?
- Real time marine traffic of all kind and size
- SST/SSS
- Coastal Risk Mitigation Efforts
- surface sediments
- Geophysics. Geoshemistry
- Actually every dataset could be of potential interest to re-users

GENERAL QUESTIONS ABOUT THE WEBSITE

1. **ON A SCALE FROM 1 (VERY POOR) TO 5 (EXCELLENT), HOW WOULD YOU RATE OUR WEBSITE IN TERMS OF THE FOLLOWING?**

	1	2	3	4	5	No answer	Arithmetic mean	Standard deviation
Overall content	0	5	20	52	14	15	3,82	0,75
Overall look / visual appeal	0	2	22	47	20	15	3,93	0,74
Ease of navigation across sections (is it logical and clear and you are able to find what you need quickly)	1	6	17	45	22	15	3,89	0,89
User-friendliness of the map	0	7	12	48	25	14	3,99	0,85
User-friendliness of data search	2	5	23	42	15	19	3,72	0,9

- **PLEASE ADD ANY COMMENTS YOU HAVE FOR IMPROVING THE WEBSITE**
  - ✓ The website is clear and the access to portal is easy. The portal itself looks a little bit dated but it is not a critical issue. I would suggest a slight improvement
  - ✓ Symbology can be improved. e.g. difficult to see differences in layer "Advisory Councils".
  - ✓ very good done! just rate the original source of information for each feature in the matedata; it is good to get the link to WFS so easy without
  - ✓ export tools are not easy to use
  - ✓ the very general nature of some data (over large areas) makes it less useful. Could site enable export the data so one could produce graphs of relationships?
  - ✓ in firefox, if you right click on the left hand pane (legend and navigation) it disappears. Had to reload to get it back again.
  - ✓ Map search is sometimes slow.
  - ✓ at times the site lags significantly while retrieving datasets
  - ✓ Maybe it would be useful that the link to "Sources" that you find on the right below any of the tables displayed, would take you to the specific source for that point, instead of taking you to the generic "About" web page. I have also noticed that links to OSPAR are no longer valid (it says, Page Not Found)
  - ✓ The icons need to more specific, and reflect on size of operation(type of vehicle or area.
  - ✓ I have to take a look at the recent Features to answer this question more reliable
  - ✓ Combination of multiple criteria (extent, time and thematic keyword such as SeaDataNet Parameter Discovery vocabulary P02 list...) would be helpfull. Format other than for GIS are needed for end-user applications (eg NetCDF...). The list of unavailable data you list are all of

interest to user applications but RT marine traffic is the most important for many applications at the present time

- ✓ This data portal is very obviously under development at the moment, hopefully some of the comments provided are useful.
- ✓ No major suggestion on it. It looks quite clear and straightforward. Probably it would be important to evidence more who is doing what (for this reason I did not rank 5).
- ✓ Accuracy issues - had a look at lighthouses but they do not plot where they should and errord occur in metadata ie listed as removed when still active ?
- ✓ I would welcome some more information about the ocean energy facilities like number of converters and whether Projects are grid connected or not.
- ✓ I (and colleagues of mine) find it just very unclear how to get data when you visit the website for the first time
- ✓ Possibility to add OGC compliant services (to add datasets available in WMS).
- ✓ The front page has a lot of words which don't really draw you in but the information is useful and I like the list of activities. It would be nice if you could click on an activity and have it take you straight to the portal (i.e. I want to know about aggregates so I click on the word aggregates and it links me to the portal). The map is easy to use and looks good. The data search doesnt seem very helpful. I typed aggregates and got a whole load of irrelevant information
- ✓ I would suggest a more simplistic and modern look to make it easier to know where to go with just one look at the page.

2. HOW DID YOU LEARN ABOUT EMODNET HUMAN ACTIVITIES?

Answer	Count	Percentage
I was involved in the consultation phase and preparatory action	6	5,7%
I am involved in EMODnet	66	62,3%
I attended a conference	17	16,0%
Through EMODnet Central Portal	19	17,9%
Through DG MARE website	5	4,7%
Through social media	1	0,9%
Colleague/someone I know told me	21	19,8%
Search engine	2	1,9%
I've learned about it just now thanks to this questionnaire	6	5,7%
Link from other page	2	1,9%
I don't remember	0	0,0%
*Other	4	3,8%

*Other:

- MODEG member
- EuroGOOS/IBI-ROOS
- I received an email about it.
- Looking for data for MSP we jumped into the portal, which is still too poor to be helpfull in MSP

3. PLEASE SPECIFY WHICH CONFERENCE YOU ATTENDED

- OSTEND 2015
- I attended an EMODnet Conference/Workshop, held at the Italian Ministry for the Environment on November 25, 2015.
- EMODnet in Oostende
- EMODnet Open Conference, Jamboree, Ostende
- MSEG IMP
- EMODNET conference in Ostend on data
- EMODnet Open Conference
- EMODnet Open Conference in Oostend, October 2015.
- EMODnet Open Conference (Ostende, Oct 2015)
- I was invited as speaker to a conference of MONALISA project in Genoa in September 2015, where a person from EMODNET human activities was invited as speaker as well.

4. HOW OFTEN DO YOU VISIT OUR WEBSITE?

Answer	Count	Percentage
Several times a week	4	3,77%
Several times a month	11	10,38%
About once a month	15	14,15%
Less than once a month	15	14,15%
Occasionally	32	30,19%
Everytime I learn about new update	5	4,72%
This is my first visit here	18	16,98%
No answer	6	5,66%

5. HOW LIKELY ARE YOU TO RECOMMEND AND REVISIT OUR WEBSITE?

Answer	Count	Percentage
Very likely	27	25,47%
Likely	52	49,06%
Unsure	15	14,15%
Unlikely	1	0,94%
Extremely_unlikely	2	1,89%
No answer	9	8,49%