



## EMODnet Thematic Lot n° 7 - Human Activities

10<sup>th</sup> Bi-monthly Report

Reporting Period: 05/05/2015 – 06/07/2015

Date: 07/07/2015

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## 1. Highlights in this reporting period

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- Participation in the European Maritime Day 2015 in Athens
- New datasets (not included in the contract) ready to go live: status of bathing water, hydrocarbon licences, and offshore installations.
- New test features developed and under review by partners. These include full-screen map version, map share functionality and layer filtering by attribute.
- A meeting with the JRC (Michele Vespe) took place to discuss how to integrate their vessel traffic density maps into Human Activities
- New Work Package started: Data Analysis, to give a complete overview of what has been achieved so far in terms of data quality and coverage.
- Important feedback from the Joint Nature Conservation Committee (JNCC) and the International Association of Oil and Gas Producers (IOGP), which offered to collaborate with the Human Activities team.

## 2. Meetings held since last report

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- EMODnet – INSPIRE meeting: Ispra, 30 June 2015
- EMODnet Steering Committee: Ispra, 1-2 July 2015
- Open Seminar for JRC staff: Ispra, 2 July 2015

## 3. Work package updates

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### ***WP 1 – Project management***

Teamwork is being introduced in the project as a project management platform. It is used to plan the work, assign roles and responsibilities, keep track of the progress, and exchange information and data between partners.

A new Work Package, WP 7 ‘Data analysis’ has been launched. See below for more details

### ***WP 2 – Development of the portal and maintenance***

#### **Progress:**

- Shellfish layer updated.
- Improved metadata implemented.
- New test features developed and under review by partners. These include full-screen map version, map share functionality and layer filtering by attribute.
- Improvements to hosting infrastructure including enhanced DDoS protection.

#### **Next Steps:**

- Ongoing improvements to WFS.
- New data will be replaced/added as it becomes available.
- Implementation of filtering by layer, based on feedback and advice from partners on their specific datasets.

### ***WP 3 – Data collection***

#### **Aggregate extraction**

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The “Ministerie Infrastructuur en Milieu - Rijkswaterstaat Zee en Delta” was contacted to get data on aggregate extraction in the Netherlands. They answered that there is no problem providing us with data, but they are discussing how to supply it, especially with regards to data already supplied to ICES and OSPAR.

## Commercial shipping, recreational shipping

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A meeting with the JRC (Michele Vespe) was organised to discuss the possibility to integrated their vessel traffic density maps into EMODnet. The maps are the result of processing vessel reported positions, namely Automatic Identification System (AIS) and Long Range Identification and Tracking (LRIT).

Due to confidentiality limitations of both LRIT (owned by EU LRIT CDC participating states) and AIS (distributed to MSSIS participating authorities), the JRC is not allowed to redistribute raw data.

Anonymised density maps can be published in the form of scientific reports, presentations or papers. As a consequence, they can also be published and browsed on the web.

Authorisations for distributing AIS and/or LRIT raster, anonymised density layers have to be requested by the JRC to the relevant owners/providers.

A possible way forward was discussed (subject to our management approval), starting with uploading onto the Human Activities portal the LRIT vessel density layers without enabling users to download them. The layers can be visualised and browsed only through the portal, however any web map scraping would need to be prevented. Meantime the JRC could start the authorisation request to EU LRIT CDC states to distributing such layers.

Once the request of distributing georeferenced data is successfully completed, the data would be made available for download.

## Cultural heritage

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### Underwater heritage

People in charge of the SPLASHCOS project (Dr Hauke Jöns) and of the dissemination of SPLASHCOS data (Dick Schaap) have provided the following answer to our request for information on the date to which the Splashcos viewer would be available: "According to the viewer: Maris has already produced a first version of the viewer that looks really fine to me, but we are still doing last corrections before common access can be offered. Maris has also integrated a WMS - WFS service that shall enable the EMODnet Human Activities Project to include a Splashcos-layer in its portal. We will come back to you with further information soon" (May 8<sup>th</sup>). We have not received any news since then. A new demand has been transmitted to Hauke Jöns.

### Lighthouse

People in charge of the website [www.lighthousesrus.org](http://www.lighthousesrus.org) have been contacted by e-mail in order to obtain the database of the lighthouses list shown on the website (with GIS coordinates). The answer is still pending.

The Amateur Radio Lighthouse Society database has been collected on their website (<http://wlo.arlhs.com/>). Data are rounded numbers so the person in charge has been contacted to check if more accurate data is available, answer is still pending.

Vincent Bruger from the French Bureau des Phares et Balises has been contacted by e-mail to know if a French or European census of the lighthouses exists. Answer is still pending.

Marine Traffic (Vessel positions tracking based on AIS data) website has a world live ships map which includes a layer of the lighthouses: <http://www.marinetraffic.com/en/>. Contact is planned to know if it is possible to get the database of the coordinates.

## Hydrocarbon extraction

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The boreholes dataset has been updated and a new version will soon be made available online.

In addition, new layers with offshore platform, as well as hydrocarbon licences have been developed. They will be made available together with the update on boreholes.

## Mariculture

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Main facts concerning data collection on mariculture during May-June are as follows:

With the help of one of our Greek partners, we finally managed to reach the competent entities within Greek ministries. Hopefully, we should receive Greek data (in database format) in the coming weeks, but there is no guarantee considering the current context in Greece. For Cyprus, we already included in our database the few finfish farms declared in their national sanitary registers. We are just waiting for a confirmation of the coordinate system used.

For **France**, we have contacted the DGAL again. Concerning finfish farms, coordinates are available in the French sanitary register and we expect to receive them soon. In addition, they have indicated a source that could be relevant for future upgrades of EMODnet. The “Cadastre conchylicole” (shellfish “land register”) provides all coordinates of polygons delimiting shellfish farming concessions. Some of these cadastres are available online (as an example for Brittany: <http://geobretagne.fr/geonetwork/apps/georchestra/>).

For **Portugal**, we managed to contact the veterinary services but we are still waiting for the data.

For **Croatia**, data collection is still ongoing at national level and updated data should be available by the end of 2015.

Some of the Chief Veterinary Officers email addresses provided by DG SANTE were obsolete (Sweden and Slovenia). We have asked for updated contact information but have not received any answer at this stage.

Therefore answers are still pending for **Italy, Sweden, Estonia and Slovenia**.

## Ocean energy facilities

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The Ocean energy facilities dataset has been updated.

## Other forms of area management / designation

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The International Conventions layer has been updated with a new shapefile from the OSPAR Convention. Updated data for Ireland, Spain and Italy has been collected to improve the accuracy of the maritime boundaries layer.

## Protected areas

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The protected areas dataset is being updated based on the new versions released by the European Environment Agency.

The EEA's datasets include both marine and non-marine protected areas. A new criterion to filter out non-marine area (as it is currently the case in the Human Activities' online viewer) is being discussed with the EEA.

### Status of bathing water

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This dataset is entirely new and is not included in the Human Activities contract. It may constitute the first layer of a new theme 'Tourism', which was suggested by stakeholders during the conference call in January.

The dataset is based on EEA's data. The EU Bathing Waters Directive requires Member States to identify popular bathing places in fresh and coastal waters and monitor them for indicators of microbiological pollution (and other substances) throughout the bathing season which runs from May to September.

The data set presents the latest information as reported by the Member States (EU28) for the 2014 bathing season, as well as some historical data since 1990.

The geographic coverage is: Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

This dataset will be made available online in the coming weeks.

### Waste disposal

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Updated information from Bulgaria, Croatia, Cyprus, Greece, Italy and Portugal has been received. Norway Government forwards from different Official Institutions to OSPAR database.

### Wind farms

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The current layer has been updated with information downloaded from OSPAR database regarding UK wind-farms.

## ***WP 5 – Data harmonisation***

### Mariculture

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The Shellfish dataset has been completed with data from Spain and Denmark. No additional data is expected for this dataset. As regards the comment made in the 9<sup>th</sup> progress report about whether to include the sites located in estuaries or not, it has been decided to keep them as they represent a significant share of shellfish farming in some countries (especially in Spain) and they are relevant for spatial planning along the shoreline.

The following data harmonisation tasks have been carried out for the finfish dataset for **Spain, Ireland, Finland, Cyprus and Scotland**:

- Conversion from Excel tables to a database format;
- Identification and exclusion of sites corresponding to land-based systems: the Spanish sanitary registry does not clearly identify seawater fish farms and freshwater fish farms. The species should allow to

discriminate between the two in order to keep the relevant farms. However some farms are indicated as if they were growing both freshwater and seawater species in the same geographical location, in general land-based, which we assume could correspond to the farm main site or offices. We still need therefore to check with the Spanish Ministry how we should interpret this and what is the best way to show the data in order to remain consistent with what is shown on the Spanish website. For Ireland, Scotland and Finland, seawater farms can easily be identified and the map projection has shown no major problem.

- Identification of potential duplicates (same name and coordinates);

The remaining tasks to be conducted are:

- Harmonisation of species description: Species harmonisation for finfish farming data is ongoing. A few issues are still pending on the level of precision we should keep in the database. For example, in several Scottish salmon farms, they use ballan wrasse and lumpsucker to prevent from parasites. So they declare these species in the registers but we have only found this in Scotland. In order to remain consistent among MS and focus on the main species, we will only keep 'salmon' in the common table.
- Integration to the geodatabase;
- Harmonisation of coordinate reference systems.
- Computation of the distance between the identified sites and the coastline.

## ***WP 7 – Data analysis***

A new Work Package has been launched with the aim to:

- 1- Assess accuracy and precision of data
- 2- Creating data products as defined in the Tendering Specifications
- 3- Offering additional data products

An in-depth data analysis is being carried out by the experts of the Consortium.

Each “human activity” included in the portal is analysed by an expert with deep knowledge of the field. The expert in charge will produce a report with an assessment of the overall quality, accuracy, and precision of the dataset.

Each thematic report will be included in the 2<sup>nd</sup> yearly report.

## 4. Specific challenges or difficulties encountered during the reporting period

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No specific challenges or difficulties encountered.

## 5. User Feedback

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Date	Name	Organization	Type of user feedback (e.g. technical, case study etc)	Response time to address user request
19/05/15	Laura Robson	Joint Nature and Conservation Committee (UK)	The JNCC is currently looking into options for Data Archive Centres for human activities data. They wanted to explore existing DACs and establish whether it would be worthwhile setting up a DAC for these data in the UK. They wondered whether there is any scope for JNCC to support the data supply to this portal for the UK	Laura was contacted by telephone soon after she sent her e-mail.
24/06/15	Bernard Vanheule	International Association of Oil & Gas Producers	IOGP represents the oil and gas producers community world-wide and also at EU level. Their Marine & Environment Committee is working on various issues, mainly addressing offshore aspects. In that context they were thinking to make use of the Emodnet map showing the location of offshore oil & gas installations. They also noted that some boreholes in the Human Activities map are missing, and offered suggestions as to how to fill gaps. In addition, the IOGP offered to collaborate with the Human Activities team by connecting us with their associates in order to get data from industry for those countries that are not cooperating.	Bernard was contacted by telephone soon after she sent her e-mail.

## 6. Outreach and communication activities

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The promotional video of EMODnet is uploaded in the website of the PrimeFish (H2020 project): <http://primefish.eu/>

Cogea attended the European Maritime Day 2015 in Athens on 28 and 29 May. There was a booth in which several projects were presented, including EMODnet Human Activities.

A workshop was organised by the EMODnet Secretariat on [Marine data and information powering Blue Growth](#).

## 7. 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	275				
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)					
Wind farms					
Fisheries					
Hydrocarbon extraction					
Pipelines and cables	Landing stations (cables)				
	Schematic cables				
	Actual route locations (cables)				
Protected areas					
Commercial shipping, recreational shipping					
Major ports					

***Indicator 2 - Organisations supplying each type of data based on (formal) sharing agreements and broken down into country and organisation type (e.g. government, industry, science).***

Country	Name	Type
Bulgaria	Waste disposal in Bulgarian territorial waters	Government
Croatia	Ammunitions dumping sites into the Mediterranean Sea	UNEP/MAP
Cyprus	Data on Human Activities in Seas and Oceans	Government
Greece	Waste disposal in Greek territorial waters	Government
Italy	Map of Unexploded ordnance dumping sites in the water surrounding Italy	Government
Portugal	Waste disposal in Portuguese territorial waters	Government
Ireland	Ireland maritime boundaries	Government

***Indicator 3 - Organisations that have been approached to supply data with no result, including type of data sought and reason why it has not been supplied.***

Country	Name	Type of data	Reason why data has not been supplied
Norway	The Norwegian Mapping and Cadastre Authority, the Institute of Marine Research, the Norwegian Environment Agency	Waste disposal	They refer to OSPAR database

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

***1<sup>st</sup> May 2015 to 30<sup>th</sup> June 2015***

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

Advisory Councils	17
Wind Farms	10
Dredge Spoil Dumping	7
Dredging	7
Dumped Munitions	7
Aggregate Extraction	6
Hydrocarbon Extraction	5
Bucharest Convention	4
Main Ports	4
Maritime Boundaries	4
Natura2000	4
Telecommunication Cables (actual)	3
HELCOM Maritime Area	2
OSPAR Maritime Area	2
CDDA	1
ICES Statistical Areas	1
Ocean Energy Facilities	1
Shellfish Production	1
Barcelona Convention	0
FAO Fishery Statistical Areas	0
Fish Catches	0
Telecommunication Cables (schematic)	0
Telecommunication Landing Stations	0

## ***Indicator 5 - Organisations that have downloaded each data type***

***1<sup>st</sup> May 2015 to 30<sup>th</sup> June 2015***

- Azores University (Research), PT
- Department of Environment – Northern Ireland (Environment), UK

- MEDDE/DPMA (Fisheries and agriculture), FR
- European Environment Agency – EEA (Environment), DK
- ERES (Mining), DE
- Ghent University (Research), BE
- GMT Research (Research), US
- IOGP - The International Association of Oil & Gas Producers (Energy), BE
- Joint Nature Conservation Committee – JNCC (UK)
- Joint Research Centre – JRC (Research), IT
- National ICT Australia – NICTA (Transport), AU
- University of Southampton (Education), UK

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

Statistics include all visitors including partners.

*View Data*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
May-15	209	02:22	312	91	43.54%
Jun-15	243	02:26	338	117	48.15%

*Home*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
May-15	810	02:36	839	722	89.14%
Jun-15	895	01:58	921	811	90.61%

*Search Data*

Month	Unique Page Views	Avg. Time on Page (mm:ss)	Page Views	New Visitors	% New Visitors
May-15	134	01:14	369	53	39.55%
Jun-15	129	01:55	260	62	48.06%

***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.)***

***1<sup>st</sup> May 2015 to 30<sup>th</sup> June 2015***

*Statistics exclude Human Activities and Central Portal partners*

1	Fisheries and agriculture	18.00%
2	Environment	12.67%
3	Mining	4.33%
4	Research	3.33%
5	Energy	3.00%
6	Demography	2.00%
=	Tourism	2.00%
7	Education	1.33%
8	Other	1.00%
=	Physical planning	1.00%
=	Transport	1.00%

***Indicator 11 - EMODnet visibility and citations (academic journals, scientific press, mainstream media, websites)***

<http://primefish.eu/content/what-emodnet>