EMODnet Thematic Lot n° 7 - Human Activities

5th Bi-monthly Report

Reporting Period: 08/07/2014 – 01/09/2014

Date: 04/09/2014

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Contents

1. Highlights in this reporting period

- *The data catalogue ('Search data page') is now live. Human Activities data and metadata can be downloaded from the portal.*

- *The 'Ocean Energy Facilities' dataset has been made available on the portal.*

2. Meetings held since last report

No meetings held

3. Work package updates

WP 2 – Development of the portal and maintenance

Progress:

- New datasets added (Shellfish Production, Ocean Energy Facilities).
- Datasets updated (Main Ports, Aggregate Extraction, Dredging).
- Minor graphical improvements have been made.
- Collated and converted outstanding metadata.
- The 'Search Data' beta page has been tested and refined. It was launched on 11th August 2014.
- The current site is now mirrored on a new webserver (with latest MapServer version), due to be hosted in September 2014.

Next Steps:

- Commence development and testing of WFS services on the new hosted webserver (prior to switch-over).
- New data will be replaced/added as it becomes available.
- Prioritization and commencement of identified improvements.

WP 3 – Data collection (All)

Cultural Heritage

Contact with Dr Hauke Jöns, the scientist in charge of SPLASHCOS project (Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf) has been established. Datasets have not been yet collected, but a positive answer of the team has been received concerning the feasibility of using Splashcos data within Seabed Mapping platform, under the following conditions :

- It has been decided within Splashcos to integrate the Splashcos data into the GeoSeas Website as an extra layer, organised by MARIS, the EMODnet Hydrography Consortium;
- Unfortunately, at the moment, there are so many data missing, especially from countries with big numbers of sites, so that the team hesitate so far to launch the "Splashcosviewer".

In conclusion, the Splashcos data may be integrated - even if indirect through GeoSeas - into the Seabed Mapping Platform. Hauke Jöns institue is planning to care also in future for the updates and integration of new archaelogical data. So to avoid double work, they would like to have the data primarily be hosted at one place (MARIS).

It has been decided that Hauke Jöns will inform us as soon as the primarly version of the Splascos-Viewer is launched at the GEOSeas-platform, so that we can start the discussion with Dick Schaap and the MARIS-people about the technical details of the exchange (likely in the first months of 2015.

Mariculture

One key finding of data collection in July was that the **Council Directive 2006/88/EC[1]** concerning animal health in aquaculture makes the following dispositions compulsory: all aquaculture production businesses and authorised processing establishments are to be authorised, and Member States shall establish a **publicly available register containing information on each farm**, including information on the species kept and the health status of the farms as regards the diseases listed in Annex IV of the Directive.

The following minimum information on each aquaculture production business shall be kept by the competent authority in a register, as provided for in Article 6:

a. the name and addresses of the aquaculture production business, and contact details (telephone, facsimile, e-mail);
b. the registration number and particulars of the authorisation delivered, (i.e. dates for specific authorisations, identification codes or numbers, specified conditions for production, any other matter relevant to the authorisation(s));
c. **the geographical position of the farm defined by a suitable system of coordinates of all farm-sites (if possible, GIS coordinates**);
d. the purpose, type (i.e. type of **culture system, or facilities** such as land-based facilities, **sea cages**, earth ponds) and maximum volume of production where this is regulated;
e. for continental farms, dispatch centres and purification centres, details on the farm's water supply and discharges;
f. the **species of aquaculture animals reared** at the farm (for multi-species farms or ornamental farms, it shall as a minimum be registered whether any of the species are known to be susceptible to diseases listed in Part II of Annex IV, or known vectors of such diseases);
g. (g) updated information on the health status (i.e. if the farm is disease-free (located in a Member State, zone or compartment), where the farm is under a programme with a view of achieving such status, or where the farm isdeclared infected by a disease referred to in Annex IV).

The following links with national registers are provided on DG SANCO website http://ec.europa.eu/food/animal/liveanimals/aquaculture/register_aquaculture_establishments_en.htm (only MS with marine coats are reported here).

1. Croatia
2. Cyprus
3. Denmark
4. Estonia

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[1] COUNCIL DIRECTIVE 2006/88/EC of 24 October 2006 on animal health requirements for aquaculture animals and products thereof, and on the preventionand control of certain diseases in aquatic animals

5. Finland

6. Greece

7. Ireland

8. Lithuania

9. The Netherlands

10. Poland

11. Spain

12. United Kingdom:

    o England & Wales

    o Scotland

A first check of on-line national sanitary registers for aquaculture showed that geographical coordinates of production sites are directly available for most of the Member States (table below).

Availability of geographical coordinates in on-line sanitary registers

Member State	SIG coordinates
Croatia	No
Cyprus	Yes
Denmark	Yes
Estonia	? (1)
Finland	Yes
Greece	Yes
Ireland	Yes
Lituania	No
Poland	Yes
Spain	Yes
The Netherlands	Yes
UK (England & Wales)	Yes (2)
UK (Scotland)	Yes

(1) On-line consultation tool not functioning
(2) Not available for fish farms

Register being only available in PDF format, we will try to obtain numeric files from Spanish and Greek authorities after the holiday break.

Ocean energy facilities

Information was collected on ocean energy facilities (other than wind farms) for the first three sea basins (Bay of Biscay and Iberian coasts, Baltic Sea, Western Mediterranean). The available attributes, inter alia, include: resource exploited, technology used, project scale (prototype, commercial, etc.), status (planned, operational, etc.), capacity, etc.

The source from which data was collated are:

- Ocean Energy Systems
- Tethys
- SOWFIA Project

Other forms of area management / designation

We found it difficult to obtain valid data from the 77 people contacted (see previous bi-monthly reports and annual report) due to both the lack of information under the proposed definition of "others" and misunderstandings on this matter. Therefore, we decided to adjust the data collection strategy, sending official letters and further explaining the scope of the project to the people in charge at government and research agencies. In addition, we will continue to search for useful contacts to locate the information and the review of public official sources (government and research centres websites, reports of scientific and academic projects, papers of public policies, etc.).

Pipelines and cables

Submarine telecom cable routes were acquired courtesy of Telegeography. Avaliable attributes include name, type of cable, status (active/planned), and date of first use (RFS date). This data is available online at www.submarinecablemap.com.

Unfortunately routes are only 'stylised paths' while actual cable route locations are not available.

In addition the data is

- based on primary research
- verified by members of the submarine cable industry
- updated constantly as new cables are announced

The Human Activities team is contacting other sources that may have actual cable route locations at least for some countries (DK, and UK).

Waste disposal

Some institutions contacted haven't yet replied. In other cases, we are still waiting for pending communications providing datasets or adequate sources. Thus, we have adjusted the data collection strategy and use 'tailored' approaches for each contact, explaining in detail the EMODnet initiative and maintaining fluent communication. Additionally, we have adapted the cover text and the supporting attachments to these institutions whilst we continue asking to other public and relevant institutions.

Wind Farms.

During this period wind farms polygons were collected for the Greater North Sea, Celtic Seas and Macaronesia sea basins. Metadata were also updated. The sources of information remain the European Wind Energy Association (EWEA), the , and The Convention for the Protection of the marine Environment of the North-East Atlantic (OSPAR Convention).

In addition, we contacted Vilma Radvilaite, Regulatory Affairs Advisor at EWEA. She suggested we contact Giorgio Corbetta, Stable Frameworks Analyst, who expressed a positive attitude towards the project. Therefore, we expect soon to receive missing information on:

- Name of facility
- Location / location of facilities
- Number of turbines
- Current status
- Starting Year
- Generation capacity (MW)

WP 5 – Data harmonisation (All)

Cultural Heritage

Datasets have not been collected. But, harmonisation of data is already done in Splashcos database.

Mariculture

Data harmonisation has been completed for Scotland.

Data harmonisation has been engaged (in course) from national sanitary registers for the following countries:

- Cyprus;
- Denmark;
- Finland;
- Greece
- Ireland;

- Netherlands;
- Poland;
- Spain;

Main ports – Vessel traffic

These data, which are available on a quarterly basis, have been aggregated for each year, from 2006 to 2012 (7 years).

The aggregation of the downloaded data has been made for the following variables/dimensions:

- Reporting entity (i.e. 583 actual ports)
- Period of time (i.e. quarterly)
- Vessel size classes in gross tonnage (23 size classes + Unknown + Total)
- Direction of flow (inwards only)
- Type of vessel (12 types of vessel + Unknown + Total)
- Unit of measure (number and gross tonnage)

For the countries below, data were not available for the following quarters/years:

- Denmark - no data for 2010 -2012
- Germany - no data for 2010 -2012
- France - no data for 2009 -2012
- Norway - no data for 2011 -2012

Quarterly data for 2013 and 2014 were not available at the time of the report writing.

4. Specific challenges or difficulties encountered during the reporting period

Waste disposal:

Frequently, national institutions who are part of OSPAR or HELCOM replied explaining that they already report this information, recommending to obtain/download the data from those international agreements.

5. User Feedback

Date	Name	Organization	Type of user feedback (*e.g. technical, case study etc*)	Response time to address user request
11/08/2014	Olivier Beauchard	Devotes project	Olivier was interested in Human Activities data, and asked whether and how he could download it.	On the same day, Olivier was told how to download data.
07/08/2014	Guido Emilio Rossi	Monalisa Project	Guido would like to use Human Activities data in the framework of the Monalisa Project. He sent us a list of data he needed. He expressed hisinterest in the project, and proposed to have a meeting to discuss how Human Activities and Monalisa could further cooperate.	On the same day, we told Guido what datasets Human Activities could offer at the time. It was agreed that we would talk over the telephone in September to arrange a meeting and discuss how we could further cooperate.
06/08/2014	David Marcha Morla	IMEDEA SOCIB	David is preparing a Marie Curie project proposal for a postdoctoral research. His idea is to exploit the potential of AIS data to asses multiple human pressures from ship-based activities. He wanted to know more about our dataset 'commercial shipping, recreational shipping'.	On the 7th of August, we replied to David's email and pointed out that it's going to take some time before the European Maritime Safety Agency will let us use their AIS data. Further aspects on the projects were explained

6. Outreach and communication activities

No activities carried out.

7. Updates on Progress Indicators

Indicator 1 - Volume of data made available through the portal

Ocean energy facilities

Twenty points, representing ocean energy facilities, were added.

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).

EU	Ocean Energy Systems	Intergovernmental
EU	SOWFIA	Intelligent Energy Europe Project
US	Tethys	Government
US	Telegeography	Private company

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.

The BSH in Germany was approached to enquire for data that could be included in "Other forms of area management / designation" but hasn't yet replied.

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

11th August 2014 (go-live of download service) to 31st August 2014

Main Ports	3
CDDA	2
Dredge Spoil Dumping (Points)	2
Hydrocarbon Extraction	2
Natura2000	2
Aggregate Extraction	1
Dredge Spoil Dumping (Polygons)	1
Dredging	1
Dumped Munitions (Points)	1
Dumped Munitions (Polygons)	1
Shellfish Production	1
Wind Farms	1
Advisory Councils	0
Barcelona Convention	0
Bucharest Convention	0
FAO Fishery Statistical Areas	0
HELCOM Maritime Area	0
ICES Statistical Areas	0
Maritime Boundaries	0
Ocean Energy Facilities	0
OSPAR Maritime Area	0

Indicator 5 - Organisations that have downloaded each data type

11th August 2014 (go-live of download service) to 31st August 2014

- The NIOZ Royal Netherlands Institute for Sea Research (Environment), Netherlands.
- ShipCon Limassol Ltd. (Environment), Cyprus.

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

1st July 2014 to 31st August 2014

Monthly Page Views

Visits	471
Average Visit Duration	00:05:07
Page Views	1,763
Unique Visitors	240
New Sessions	45.44%

Most Popular Pages

1	Home	27.85%
2	View Data	23.82%
3	Search	21.21%
4	About	8.05%
5	Documents	3.01%
-	Other	16.06%

Most Popular Exit Pages

1	View Data	36.73%
2	Home	33.34%
3	About	9.34%
4	Search	5.74%
5	Documents	2.12%
-	Other	12.73%

Traffic Acquisition

1	Central Portal	66.07%
2	Direct (URL)	16.07%
3	Twitter	7.65%
4	Search Engine / Organic	4.59%
5	Consortium Referral	2.55%
-	Other	3.07%

Visitor Location

1	Italy	26.33%
2	United Kingdom	25.69%
3	Spain	12.74%
4	Brazil	11.04%
5	Belgium	5.94%
6	Sweden	1.70%
7	Denmark	1.49%
=	France	1.49%
=	Ireland	1.49%
10	United States	1.27%
-	Other	10.82%

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.)

11th August 2014 (go-live of download service) to 31st August 2014

1	Environment	82.30%
2	Education	5.90%
=	Energy	5.90%
=	Transport	5.90%

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

http://www.euroshell-fp7.eu/News/EUROSHELL-data-will-be-soon-integrated-into-the-EMODNET-portal

The European Wind Energy Association (EWEA) has expressed interest in the information concerning wind farms available on EMODnet portal, and there are opportunities for further collaboration by hosting the map on their website and the dissemination of EMODnet results between the partners of the LeanWIND project (www.leanwind.eu). This association represents the wind-farms industry in Europe (700 members from 60 countries) through an active promotion of wind energy.