



EMODnet Thematic Lot n° 2 – Seabed Habitats

EMODnet Phase III - Quarterly Report

Reporting Period: 01/07/2017 – 30/09/2017

Date: 15/10/2017

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1. Highlights in this reporting period

1. Data Ingestion (*related to tasks 1 and 2*):

- All Seabed Habitats partners have resources allocated to identifying new sources of seabed habitat data and maps that are owned by third parties (as part of WP3, 4 and 5). While for some thematic lots this activity lies within the remit of the Data Ingestion project, the situation is different for seabed habitat data for two main reasons:
 - The Data Ingestion model relies on the existence of a network of established data centres and a data infrastructure related to the relevant data theme – these do not exist for habitat data.
 - EMODnet Seabed Habitats is not represented in the Data Ingestion consortium like all the other thematic lots; therefore, we must fund any data discovery and ingestion through our own funds.
- Despite our lack of formal involvement in the Ingestion project, we have made good progress towards integration with Data Ingestion so that we can make use of the services provided by the Ingestion portal:
 - We have recommended the use of the Ingestion portal in a guidance document for Seabed Habitats partners who are seeking third-party data (see Annex 2 entitled *Guidance_ThirdPartyData.pdf*).
 - All Seabed Habitats partners have registered as ‘data centres’ with the EMODnet Ingestion portal, which will allow them to process any data submission related to seabed habitats in their country or a neighbouring country.
- Partners have started to contact potential third-party data providers to explore what data exists and what can be shared with the project. This process is summarised in Annex 2.

2. Preparation of habitat maps from surveys (*related to tasks 1 and 2*):

- All partners have been busy preparing habitat maps from surveys for upload to the portal. This involves acquiring the datasets, filling in INSPIRE-compliant metadata, getting the datasets into a standard format, checking for geometry errors and carrying out confidence assessments.
- Our aim is to upload to the portal all the habitat maps listed in Appendix 3 of the technical proposal by the end of year 1. Although there are 89 rows in that table, some of those rows refer to collections of maps – the true number of individual habitat maps is likely to be around 200 – an expected increase of nearly 60 % compared to the current number of maps on the portal.

3. Preparation and identification of environmental data layers for modelling (*related to tasks 2 and 3*):

- In order to update our flagship data product – EUSeaMap – we have been working to identify the best sources of regional environmental data layers to use as inputs.
- These do not always exist and therefore we have resources assigned to creating them – e.g., improved predictions of kinetic energy at the seabed due to waves and currents in the Mediterranean and Macaronesia. This is a large task but these and the other

environmental data layers produced by this project will be freely available for use by others.

- We have proposed to EMODnet Biology to share information about, and access to, the same datasets so that they may benefit from our efforts and to ensure some consistency between the use of environmental data layers in the modelling activities of both projects.
- The JNCC coordinator attended the September face-to-face meeting with Mercator Ocean (the operators of the Copernicus Marine Service) that was organised by the EMODnet Secretariat. Here, the requirements of the Seabed Habitats project for Copernicus products were presented with our willingness to collaborate.

4. A new schema for ground-truthing data (WP4) (related to tasks 1, 2 and 6):

- Up to now there has been no European infrastructure for the sharing of ground-truthing data on seabed habitats. Therefore, the first task to making this kind of data available has been to produce a data schema that will allow disparate data sets to be combined and published in a standard way.
- In the creation of this data schema we recognised that it will be essential to be able to retain the links with any species information also recorded from the same ground-truthing samples – i.e. the data that is collated and published by EMODnet Biology. Therefore, we have designed a schema that is compatible with the schema used by EMODnet Biology. This will allow the information to be uploaded to the same infrastructure used by Biology, namely the Ocean Biological Information System (OBIS).

2. Specific challenges or difficulties encountered during the reporting period

Several partners have begun to approach third parties about acquiring their data and many of them have received some resistance. The response varies by country as some have a more open data sharing culture than others. Some promising feedback that has been received, however, is that with some perseverance the data owners sometimes change their minds. As such, we have not yet listed any organisations that have been approached to supply data with no result (indicator 3), because we prefer to view these difficulties as a 'work in progress'.

3. User Feedback

Date	Organization	Type of user feedback (e.g. technical, case study etc.)	Response time to address user request
Ongoing	-	General portal feedback: we signed our website up to http://peek.usertesting.com/ which uses members of the public to provide feedback on a website via a 5-	NA

		minute screencast. If you'd like to see the first two videos, contact EMODnetSeabedHabitats@jncc.gov.uk	
	EMODnet Check-points	Case studies: We have reviewed all the EMODnet Checkpoint Data Adequacy Reports and compiled a list of relevant points. For each point, we have identified an action. If you'd like to see this list, contact EMODnetSeabedHabitats@jncc.gov.uk.	
2017-09-28	CNR-ISMAR	Technical: this user had previously enquired about the adoption of CC-BY 4.0 license on EMODnet products. He was informed that EMODnet Seabed Habitats had moved to the license for all portal-made products. He provided positive feedback on the license adoption and suggested it be used in wider EMODnet.	NA
2017-09-06	SYKE	Technical: one partner suggested the ability to drag layers on the map's table of context to determine drawing order. Suggestion added to development options, but is currently not feasible.	NA

Annex 1 Updates on Progress Indicators

Indicator 1 - Volume of data made available through the portal

Currently, EMODnet Seabed Habitats is in a phase of data collection, and as such, no new data has been added to the portal. The first update is likely to be in November 2017.

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)

Currently, EMODnet Seabed Habitats is in a phase of data collection, and as such, no new data has been added to the portal. The first update is likely to be in November 2017.

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

As explained in section 2, we currently have nothing to report here.

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

The table below summarises the data products downloaded from the EMODnet Seabed Habitats portal in the period 01/07/2017 to 30/09/2017.

layer	number of downloads
342 Individual EUNIS maps from Survey	4398 over 48 download sessions ¹
25 Individual non-EUNIS maps from survey	164 over 9 download sessions ¹
Broad-scale habitat map (EUSeaMap)	147
OSPAR database of threatened and/or declining habitats	42
EU Sea Map 2016 - Fraction of light reaching the seabed	17
EU Sea Map 2016 - Photosynthetically Active Radiation at the surface	12
EU Sea Map 2016 - Photosynthetically Active Radiation at the seabed	19
Energy - North Sea and Celtic Sea	19
EU Sea Map 2016 - Coefficient of light attenuation in water (KDPAR)	17
Energy/Wave Exposure - Baltic Sea	16
Halocline - Baltic Sea	6
Salinity - Baltic Sea	9
EU Sea Map 2016 - Number of satellite images for each pixel of KDPAR	9
EUSeaMap 2016 higher resolution case study for east of Angus and Aberdeenshire	2

Indicator 5 - Organisations that have downloaded each data type

The following is a list of organisations that have downloaded data from the EMODnet Seabed Habitats download page (<http://www.emodnet-seabedhabitats.eu/access-data/download-data/>) in the period 01/07/2017 to 30/09/2017:

Åbo Akademi University ABPmer ACRI-HE AECOM AFBI Agence française pour la biodiversité Amec Foster Wheeler AquaBiota Water Research AQUAFAC	MacArthur Green MariLim Aquatic Research GmbH MariLim Gesellschaft für Gewässeruntersuchung mbH Marine and Environmental Science Center MARE Marine Institute Marine Scotland Science Medins Ministerie van Infrastructuur en Milieu
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¹ Habitat maps from surveys are available as individual downloads, with the option for the user to "Download All". The number presented in the table is the number of individual habitat maps.

<p> Artdatabanken, SLU Bangor University Black and Veatch Bloomberg BMT Cordah BRGM Ca' Foscari University CCMAR/Universidade do Algarve Cefas CNR-IAMC CNR-ISMAR CNRS COWI AS DAERA Danish Technical University Deltares DHI Dutch Ministry of Infrastructure and Environment EBD-CSIC EDPR UK EEA EID Méditerranée enebada entorno s.l. fcu Finnish Environment Institute Finnish Natural Resource Institute French biodiversity agency Fugro Genesis Geological Survey of Norway GoBe Consultants Ltd Hafok AB Hampshire County Council Heriot-Watt University Holkham HR Wallingford ICM-CSIC IFR IH Cantabria IMAR Imperial College London </p>	<p> Ministry of Agriculture and Fisheries, Food and Environment of Spain MOE A/S for Miljøstyrelsen MSS NABU NAFC Marine Centre National Institute for Marine Research and Development National Oceanography Center Southampton Natural England Nexen Petroleum UK Ltd NHTV Norwegian Institute for Water Research NTNU NUI Galway Open Seas Orbis Energy Limited Parks & Wildlife Finland personal use Port of London Authority Ramboll Envion RBINS - OD Nature Regione del Veneto RINA Consulting Royal Belgian Institute of Natural Sciences RPS Energy RSPB SAMS shom sinay Smartcom Software socib Sun Yat-sen University Swansea University The Hebrew University of Jerusalem TU Delft Ulster University UNEP-WCMC University of Hull Universidade de Aveiro Universidade de Lisboa Università degli Studi di Palermo University of Aberdeen </p>
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Institute of biodiversity and ecosystem research Instituto español de oceanografía Instituto Hidrográfico de la Marina InTouch GIS Services Ltd IO-BAS IOW IPMA, Portugal iu-ecoqua ulpgc JNCC JRC Leidos LSE	University of Granada University of Leeds University of Piraeus University of Plymouth University of Salento University of Southampton University of the Algarve VLIZ Wageningen Marine Research WSP Xodus Group
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Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes

This information is gathered by Google Analytics describing the user statistics for key web pages in the period 01/07/2017 to 30/09/2017.

page description	page address	Number of unique visitors	How many users end their visit on this page	Average residence time on page (mm:ss)
Home page	www.emodnet-seabedhabitats.eu	9	1	00:45
View data	http://www.emodnet-seabedhabitats.eu/access-data/launch-map-viewer/	606	516	03:25
Download data	www.emodnet-seabedhabitats.eu/download	357	280	01:49
Build custom map	Page no longer exists	106	56	00:57
Search metadata	http://www.emodnet-seabedhabitats.eu/access-data/search-metadata/	70	18	00:36

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.)

This information is collected from the form that users fill out when downloading data from the download page (<http://www.emodnet-seabedhabitats.eu/access-data/download-data/>) in the period 01/07/2017 to 30/09/2017.

Reason	Proportion of total
Commercial/industry	10%

Education	13%
Exploration/Exploitation surveys	1%
Fisheries	0%
Government	16%
NGO/Charity	0%
Personal use	10%
Research	45%
Other	5%

Indicator 8 - List of web-services made available and user organisations connected through these web-services

No change from the previous reporting period. Data on organizations connecting to web services is not currently available.

Metadata is available through a Catalogue Service for the Web via the ICES GeoNetwork. Mapping data are available through an OGC-compliant Web Mapping Service:

<http://www.emodnet-seabedhabitats.eu/access-data/web-services/>