



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n°2 – Seabed Habitats

EASME/EMFF/2018/1.3.1.8/Lot2/SI2.810241

Start date of the project: 25/09/2019 - (24 months)

EMODnet Phase III – Quarterly Progress Report (11)

Reporting Period: 01/01/2020 – 31/03/2020



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1. Highlights in this reporting period

Task 1: develop a common method of access to data held in repositories

- New individual habitat maps from surveys: six new habitat maps have been published (4 in France, 1 in Ireland, 1 in Italy)
- New survey sample points: points from four datasets have been published from a third party provider in a non-partner country – Estonia.
- New tool for validation of individual habitat maps from surveys: an online [Validation tool](#) has been developed by the JNCC. This tool enables to check the conformity of a polygon habitat map with the standards required by EMODnet Seabed Habitat. Some guidance on using the tool is available [on GitHub](#). From now on, project partners will be required to validate their own habitat maps before they can be uploaded to the portal, reducing the burden on the work package leader.
- A new, more flexible, policy for survey habitat map confidence assessment has been implemented. All templates and tools have been updated to integrate the changes induced by this new policy. We now accept maps whose confidence assessment varies spatially, that do not follow the MESH confidence assessment method, and even those for which no confidence assessment has been made.
- Initial thoughts have been shared with the EMODnet Secretariat on which products of the H2020 Atlas project could be candidate for integration in EMODnet Seabed Habitats.

Task 2: construct products

- we have established a need from OSPAR for an updated EUNIS level 3 map for the NE Atlantic, combining survey maps and EUSeaMap - due March 2021.
- We have had a discussion with the [Archipelagos Institute](#) about creating a coralligenous habitat data product for the Mediterranean. They have data and contacts. We need to establish timelines and roles and responsibilities, in collaboration with RAC/SPA.
- EUSeaMap
 - Initial discussions with EMODnet Geology on the timeline and format that would be suitable for integration of the Seabed Substrate product in EUSeaMap (due September 2021)
 - The new version of the marine section of the EUNIS classification has been published by the European Environmental Agency, under the name [EUNIS marine habitat classification 2019](#) and in the form of an Excel spreadsheet. Ifremer, ISPRA, and JNCC are going to start working on the translation of EUSeaMap in the new EUNIS by developing a table that correlates the new EUNIS with the habitat types used in EUSeaMap.

Task 3: develop procedures for machine-to-machine connections to data and data products

- We have added nearly 30 new WMS layers to the interactive map from external sources. These include Composite data products from HELCOM (Habitats Directive Annex I), ICES (Vulnerable Marine Ecosystems) and NOAA (Undersea features) and Boundaries such as MPAs, Regional sea convention boundaries and MSFD regions. To the user, these layers are displayed seamlessly without ever knowing that the data is sourced elsewhere. The sources are,

however, clearly marked in the layer name, and the user is directed to the original source for metadata and download

Task 4: maintain and further develop a thematic web portal

- The ownership of the emodnet-seabedhabitats.eu domain from JNCC (UK-based) to Ifremer (France-based) has been transferred
- Changes have been made to comply with EMODnet visual identity guidelines (see section 7 narrative for progress indicator 9.2)
- We have fixed some bugs, for example the [layer search](#) stopped returning results when ICES upgraded the version of Geonetwork used for the metadata catalogue.

Task 5: ensure the involvement of regional sea conventions

- As part of the data call to OSPAR contracting parties for point and polygon data on OSPAR threatened and/or declining habitats, the EMODnet Seabed Habitats partners were introduced as people who could assist in the collection and formatting of data.
- SYKE have started conversations with HELCOM. Next step is to schedule a meeting to discuss on what they would expect from EMODnet Seabed Habitats. This was originally going to happen in person but will now happen online.
- ICES Working Group on Marine Habitat Mapping (WGMHM) in May. This year, the 5-day meeting will be an online event, and there will be a unique term of reference, which will help the Working Group on Deep-water Ecology (WGDEC) in the delineation of the Physical Vulnerable Marine Ecosystems (VME) Indicator Elements (e.g. seamounts, canyons). JNCC and Ifremer, as member of the WGMHM, will attend and make sure that the relevant links to EMODnet are made. We have already suggested that the chair of the group contact EMODnet Geology to find out what they are doing regarding the mapping of geomorphological features.
- An email has been sent to RAC/SPA regarding the development of a coralligenous habitat data product for the Mediterranean, together with the Archipelagos Institute (see task 2). No answer has been received so far.

Task 6: install a process to monitor performance and deal with user feedback

- No new work has taken place as we already have a process to monitor performance and deal with user feedback

Task 7: operate a help desk offering support to users

- This task is operated routinely

2. Challenges encountered during the reporting period

All our challenges have been related to the Coronavirus crisis. While we are able to continue with a lot of the work as normal, there are some limitations and in some cases some impossibilities. As a result, there is an impact on the progress of the project, but for the time being we don't see any deliverable that would be critically affected. Below is a recap of the difficulties that we are facing.

List of all challenges encountered during the reporting period	
Main challenge	Measures taken
Tasks taking longer: for some partners, everything takes longer due to slow network speeds or having to take addition time off to look after children	More days allocated to these tasks; although this will inevitably mean that fewer days will be available for other tasks later on in the project.
Inability to perform some tasks: some partners cannot process data due to inability to access their enterprise network (i.e., they do not have the technology for that)	Data processing have been postponed in some cases, which will mean we could have less data than expected for our next planned portal upload (August 2020). As a result, we may consider pushing back that deadline.
Face-to-face meeting cancelled: an important two-day progress meeting was scheduled in late March in London	It was changed to a one-day conference call.
Coronavirus crisis and communication activities: the conferences we had planned to participate have been cancelled (GeoHab, MeriGéo). These were excellent opportunities to communicate on the project	MeriGéo has not been cancelled but postponed to November, we have already agreed to keep the presentation for which we were scheduled. Geohab will take place in 2021.

3. Identified issues: status and actions taken

[Provide an overview of the issues identified by EASME (Table A), if any, during the reporting period, the status of those issues and actions taken to address them and/or roadmap with remaining actions planned to resolve the issues. You may also provide information about issues you identified yourself, but these need to be covered in a separate table (B)]

A. Priority issue(s) identified and communicated by EASME/ DG MARE/ SECRETARIAT			
Priority issue(s)	Status (Pending/ Resolved)	Action(s) taken / remaining actions planned	Date due
<p>Email from Lucie Pautet (EASME) on 24/2: Brexit: as you know, the UK has officially left the EU. Please review the content of your portal and make sure that it is reflecting that fact. We expect that the impact on the portal will be minimum. Alessandro (Human Activities) has kindly provided us with documentation he received on that subject. The documents are provided here for support if needed. Please report on compliance in the next report. Note that we have not yet received any feedback about UK servers now that we are in the transition period.</p>	Resolved	<p>We have reviewed the content of the website, in terms of text, figures and maps and determined that no changes have been necessary to reflect the fact that the UK has left the EU.</p>	31/03/2020
<p>Email from Lucie Pautet (EASME) on 24/2: "INSPIRE Metadata issue: regarding compliance of metadata, we are aware that you are working on some script. Meanwhile, the Secretariat has been running some compliance checks and listed the problems it flagged. Please review the attached zip file to help you achieve full compliance by end of March when the Secretariat will be running another check. If you have any question, don't hesitate to contact the Technical Coordinator through the JIRA ticket." (JIRA issue EMODNET-33)</p>	Pending	<p>Recap of task: for every layer in GeoServer, make it so that the data url points to a predefined download link.</p> <p>As explained by email on 17/03/2020: by 31/03/2020, we expected to have the work flow in place and have added data URLs for many of the layers (step 1), but we may have to work through some of the problematic layers manually, which will be laborious and take us beyond the deadline (step 2). We agreed with Lucie Pautet that the deadline for this subsequent task would be the end of the next reporting period.</p> <p>Current status: we have most of the work flow in place – we can extract the relevant data URLs in a programmatic way from our metadata catalogue – however the final step of (programmatically)</p>	<p>Step 1: 31/03/2020</p> <p>Step 2: 31/06/2020</p>

		inserting these URLs into each GeoServer layer has proved difficult, with a lack of guidance online. We are still attempting to avoid doing this manually and are still aiming for the next quarterly report to complete the task.	
BREACH vulnerability issue (JIRA issue EMODnet-35)	Resolved	We clarified with the C. Delaney that we were already compliant hence this was not an issue for our portal.	

B. Other priority issue(s) identified by the thematic assembly group itself

Priority issue(s)	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due

4. User feedback

Overview of user feedback and/or requests received during the reporting period						
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Response time	Status of user query: resolved/pending	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
03/01/2020	Not disclosed	Data enquiry - I am trying to access some climatology data from EMODnet Physics and I can't seem to access the data.	3 hours	resolved	Forwarded enquiry to physics lot	
09/01/2020	Atlantic Resource Consultants (ARC) Marine	Data enquiry - Is there any way to discern between the broad-scale habitats on the mapper? The key has too many similar colours.	1 minute	resolved	Advised the user to click on the mapper to display attributes in that area	
10/01/2020	Not disclosed	General - I received the layer from the author and I'm working on it. Do you perhaps know which is the coordinate reference system of the map?	1 minute	resolved	Advised of the coordinate reference system	
24/01/2020	Ifremer	Use of the webGIS - I would need to know what the habitat is at a specific location. What is the data layer I should look at on the webGIS?	30 mins	resolved	Live assistance	
23/01/2020	Grenoble Institute of Technology	General - Where can I access a world depth map?	1 minute	resolved	Provided options for Gebco Data and EMODnet bathymetry data	
23/01/2020	Aquaculture Stewardship Council	General - I cant download the Posidonia oceanica layer in the Med?	1 hour	resolved	WMS links provided	

03/02/2020	Muséum National d'Histoire Naturelle (MNHN)	Technical - How do I narrow down the list of OSPAR Habitats in the Map viewer?	2 hours	resolved	Emailed guidance	
13/01/2020	Not disclosed	Technical - We need to know what GUI our habitat map has to submit data	13 mins	pending	Set up meeting to advise	
27/01/2020	Ricardo (environmental consultants)	General - I would like to download a fine scale map but the link is taking me to every habitat map from survey classified to EUNIS.	1 minute	resolved	Advised to find the GUI of the habitat map, then to download the layer and filter by GUI after.	
30/01/2020	Liverpool University	General - Do you have data on the percentage of substrate type in the Mediterranean?	1 minute	resolved	Advised we do not hold such data, but provided a link to EMODnet Geology	
10/02/2020	Not disclosed	General - What is the unit for kinetic energy at the seabed due to currents	2 days	resolved	Provided live assistance and linked to the metadata	
20/02/2020	Not disclosed	General - how do I download the salinity data in Vancouver?	20 mins	resolved	Advised we do not hold such data and provided a link to EMODnet Physics	
21/02/2020	Not disclosed	General - what year was the data collected for kinetic energy at the seabed due to currents	1 minute	resolved	Provided live assistance and linked to the metadata	

25/02/2020	Bangor University	Technical - How do I access seabed substrate data for the celtic sea using your mapper?	1 minute	resolved	Provided a link to EUSeaMap	
25/02/2020	Cornwall Wildlife Trust	Technical - The habitat maps are not loading onto the mapper properly. Is this issue occurring at your end?	1 minute	pending	Server was down, Jordan investigated	
25/02/2020	Not disclosed	General - Do you have seagrass bed data in Studland Bay and Weymouth Bay, Dorset, UK?	1 minute	resolved	Provided a download link	
02/03/2020	Not disclosed	General - Can I get all the information about plymouth sound and plymouth waterfront available	1 minute	resolved	Provided a multitude of links to download data	
18/03/2020	Not disclosed	General - we are planning to use your substrate type map, but wanted to ensure to cite it properly in the report.	1 minute	resolved	Provided a link to the citation page	
27/03/2020	Advisian	General - what units are the currents data recorded in?	3 hours	resolved	Provided a link to the metadata for further details	
01/04/2020	Not disclosed	General - do you have any baselayers I can download from your portal?	1 minute	resolved	Advised we do not have this type of data.	
01/04/2020	Bioconsult	General - do you have a .lyr file for EUSeaMap symbology?	1 minute	resolved	Provided a download link from GeoServer	
08/04/2020	Not disclosed	General - Do you have seabed habitat data that I can download?	1 minute	resolved	Provided a download link to EUSeaMap	

5. Meetings held/attended & planned

A. Meetings organised and attended				
Date	Location	Type event (meeting, training (workshop), etc.)	Meeting to be attended / organised	Short description and main expected outcomes
24/02/2020	Videoconf	meeting	organised	Project Office meeting - Organised by JNCC - Partners attending: JNCC, Ifremer - The Project Office comprises the coordinator (Mickaël Vasquez, Ifremer) and the Technical Project Manager (Helen Lillis, JNCC) - discussed on technical report, Annual EMODnet report, First portal update, Website developments, Consortium agreement, Management meeting in London, Jamboree , Next EUSeaMap update, EMODnet Ingestion, upcoming events, meeting with CMEMS
28/02/2020	Videoconf	meeting	organised	Meeting with CMEMS - Organised by JNCC - Partners attending: JNCC, Ifremer - Discuss ways to highlight and link to EMODnet products on CMEMS data services (e.g. seabed habitat maps JNCC). - Briefly discussed on how CMEMS products could be more appropriate to Seabed Habitat mapping/modelling (Products at seabottom, Better resolution) and about publishing EMODnet Seabed Habitats' products on CMEMS website Agreed on a face-to-face meeting at a date tbd
13/03/2020	Videoconf	meeting	attended	Thematic coordinator meeting - Organised by DG MARE - Partners attending: Ifremer - DG Mare convened thematic coordinators to inform them of an important decision for the future of EMODnet. - The DG MARE has decided that in the next phase, all EMODnet data and data products will have to be findable, visible and downloadable through a unique access point, the central portal. Individual thematic groups will maintain their servers and web services, but not their websites. This decision will take effect in the next phase, that will not start before the end of the current one (24/09/2021 in our case)
20/03/2020	Videoconf	meeting	attended	EMODnet bathymetry technical presentation - Organised by DG MARE - Partners attending: Ifremer, JNCC - EMODnet Bathymetry to present an overview of features/technology specific to the

				thematic portal - It was discussed which specific items of the EMODnet Bathymetry portal could be difficult to transfer to the Central Portal
27/03/2020	Videoconf	meeting	organised	3rd Project Management Team meeting - Organised by JNCC - Partners attending: Ifremer, ISPRA, JNCC - The Project Management Team comprises WP leaders (Ifremer, ISPRA, JNCC), meets every 3 months and its task is to implement the scientific and technical activities - Was supposed to be a 2 day face-to-face meeting in London. Replaced by a one day videoconf due to Coronavirus crisis
SUM			O	Total # of meetings organised =3
SUM			A	Total # of meetings attended = 2

B. Meetings planned in the future

Date	Location	Type event (meeting, training (workshop), etc.)	Meeting Attended (A) / Organised (O)	Short description and main results (# participants, agreements made, etc.)
28/04/2020	Videoconf	meeting	organised	WP2 meeting - Organised by ISPRA - Partners attending: All Partners - to discuss about the work already done, any issue in data preparation and check precesses and the future step - Upcoming
04-08/05/2020	Videoconf	meeting	attended	ICES working group on marine habitat mapping - Partners attending: JNCC, Ifremer - WGDEC (Working Group on Deep-water Ecology) has asked WGMHM for help with another important component of their work. NAFO and ICES are adopting VME Elements for predicting the areas where VMEs are likely to occur. Elements are topographical, hydro-physical or geological features. WGHMH has offered help in the delineation of these Elements for WGDEC this year
27/05/2020	Videoconf	meeting	organised	2nd project meeting - Organised by Ifremer - Partners attending: All Partners - Occurs every 6 months - WP leaders present updates of their WP - Upcoming
17/06/2020	Toulouse, France	meeting	organised	Meeting with CMEMS - Organised by Ifremer - Partners attending: Ifremer - Follow-up of the videoconf that occured 28/02 - Further discuss ways to highlight and link to EMODnet products on CMEMS data services - Upcoming

6. Outreach and communication activities

A. Outreach and communication activities			
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results
30/01/2020	Oral Presentation	Mickaël Vasquez (Ifremer) - An overview of EMODnet Seabed Habitats - Seminar on Habitats, Museum of Natural History, Paris, France, 30-31/01/2020	Seminar that gathered French habitat specialists, both from land and marine realm. 200 participants (scientists, policy makers) Sessions were on typology, mapping and data dissemination
06/02/2020	Oral Presentation	Jorge Gonçalves et al (CCMAR) - Marine Habitat Mapping - International conference on Marine Information Systems, Esposende, Portugal	>100 participants
21/02/2020	EMODnet Data and data product portfolio	Helen Lillis (JNCC) - Coordination EMODnet Secretariat	Document updated
24/02/2020	EMODnet Seabed Habitat Factsheet	Helen Lillis (JNCC) - Coordination EMODnet Secretariat	Document updated
03/03/2020	Oral Presentation	Zyad Al-Hamdani (GEUS) - Broad-scale benthic habitat maps. A prerequisite for Maritime Spatial Planning - EcoMar Project final conference, Copenhagen, Denmark, 03/03/2020	70 participants
05/03/2020	Report	Helen Lillis (JNCC) - Contribution to EMODnet Annual Report 2019	Description of EMODnet Seabed Habitats activity (key facts, data providers and users)

B. Planned outreach and communication activities			
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results expected
	No planned activity due to coronavirus crisis (all events cancelled)		

List of known publications using EMODnet data or data products

Date	Type and name of journal, conference, ...	Publication title	Author(s)	Organisation(s)
2019	Final workshop for the Nordic Blue Carbon project 21-22/11/2019, Oslo, Norway	Distribution and biomass of blue forests in the Nordic countries	Gundersen H, Andersen GS, Bekkby T, Christie H, Frigstad H, Hancke K, Rinde E.	NIVA
2020	Science of The Total Environment	Relative impacts of multiple human stressors in estuaries and coastal waters in the North Sea–Baltic Sea transition zone	Jesper H. Andersen, Ziad Al-Hamdani, E. Thérèse Harvey, Emilie Kallenbach, Ciarán Murray, Andy Stock	NIVA GEUS Columbia University
2019	Volume III-C/PCE Decree law- Diário da República n.º 250/2019, 1º Suplemento, Série I de 2019-12-30.	Portuguese Maritime Spatial Plan - Situation Plan		DGRM - Sea Affairs Administration PT

7. Monitoring indicators

[Please consult and complete the designated excel template on monitoring and progress indicators in annex, and provide a comment short explanation on numbers and trends in the table on for each indicator when possible/applicable. If any additional monitoring was done through other monitoring tools, please state clearly. Provide information in the table.]

Comments on the progress indicators in the excel template	
Progress indicator	Comment
1.1 Volume and coverage of all available acquired data	Datasets from Estonia were acquired by our Finnish partners SYKE and uploaded during this quarter.
1.2 Total number and the coverage of all built & external data products	<p>A total of 6 new habitat maps from surveys were acquired by Marine Institute, ISPRA and Ifremer.</p> <p>This quarter has seen both GB volume added to a number of indicators. Additionally, in the previous quarter this indicator did not require "trend %" to be reported, whereas this quarter we are required to report on trends. More clarity is needed from the Secretariat what portals should be reporting in the trend value; is this trends for individual data products, or for the GB volume?</p>
2. Overview of all organisations supplying and approached to supply data and data products within reporting period	6 data providers were approached to supply or supplied 18 datasets (12 habitat maps, 6 observation point data)
3. Interfaces to access or view data	No change on the previous reporting.
4. Usage of data and data products per interface and per theme	<p>JNCC were also able to provide the total GB volume of OGC web service requests being made this quarter.</p> <p>Same as Indicator 1.2, more clarity is needed as to whether portals should report trends on the GB volume of data made available instead of trends on individual data products.</p>
5. Distribution of users that have used the portal's data and data products per organisation type and country, and their main use cases	<p>As usual, the majority of users are from a Research-orientated background.</p> <p>Please note that we still do not collect information on country or organisation, as this would require IP information which is deemed personal information by EASME. We suggest you remove the requirement for this information from the template.</p>
6. External products (websites, apps, ...) built on top of web-services: update since last quarterly report	We are not aware of any new products built on top of our web-services during this quarter.
7. Published use case and number of readings	Once again, Trust IT have not reported the true number of published use cases (see https://www.emodnet-seabedhabitats.eu/resources/use-cases/) because it is

	<p>based only on use cases listed on the Central portals' website.</p> <p>There are in fact 31 use cases in total as opposed to the six available on the central portal</p>
8. Portal and Social Media visibility	No comments to make on this indicator.
9.1 Technical monitoring	No comments to make on this indicator.
9.2 Portal user-friendliness	As noted in the scores, we have made improvements to user-friendliness and visual identity to match the guidelines. We note that the score for 'Social Media icons' is low. This could be because the missing YouTube icon was only added recently, and the scoring may have occurred before it was added. If there is another problem, please let us know. Otherwise we consider this case closed.
10. Visibility & Analytics for web pages	<p>JNCC have started using this indicator as a <i>rough</i> estimate to use for total number of mapper views used in Indicator 4.</p> <p>Stats from the new dashboard are based on average numbers, ideally they would also provide total number of views as well.</p>
11. Visibility & Analytics for web sections	The slight increase in visits to the Contribute Data section in 2020 could be due to project partners consulting the pages so that they can prepare new data for submission to the project. However, the 2020 increase to both the Resources and Contribute Data sections could possibly also be explained simply by the fact that the project team has spent time recently updating these pages (assuming that web administrators' IP addresses are not excluded from this analysis?).
12. Average visit duration for web pages	As with indicator 11, the 2020 increase in visit duration to the pages within the Contribute Data section ("Data Submission Process" and "Data exchange format") could be due to (a) project partners consulting the pages so that they can prepare new data for submission to the project and/or (b) the fact that the project team has spent time recently updating these pages (assuming that web administrators' IP addresses are not excluded from this analysis?).

The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Matomo. In some cases, numbers from other monitoring systems may also be reported (e.g. Awstats, Google Analytics). Each system uses different technical approaches and therefore has its strengths and shortcomings. Therefore, results are indicative and care should be taken with interpreting absolute numbers or comparing results from different tools. It is often more sensible to consider trends over time collected by the same monitoring tool.

8. Annex: Other documentation attached

[List in Annex if you wish to provide any additional information.]