

EMODnet Secretariat progress update – April 2019

This update is based on the quarterly progress reports of the different EMODnet groups (Thematic Portals, Data Ingestion Portal), and supplemented with updates from the Secretariat. This is the ninth Secretariat progress report since the start of the EMODnet Development Phase III (2017-2020) and covers activities developed within EMODnet in the period January-February-March 2019.

EMODnet progress overview

Common progress highlights

In the first quarter of 2019, the contracts of several EMODnet projects ended. This goes hand in hand with the delivery of a number of final (new or updated) products, the production of the final report and for some the last quarterly report of their contract. The communication between the individual lots and the Secretariat was maintained, as it was in many cases necessary to coordinate the release and communication of new or updated EMODnet data products.

EMODnet welcomed a new Associated Partner, the Thames Estuary Partnership (TEP). Also, a new colleague joined the EMODnet Secretariat office in Ostend: Kate Larkin, who will take on a role as new EMODnet Deputy Head. Kate was a former member of the European Marine Board, and has over 10 years' experience working in European marine science and connecting science with policy, industry and wider society.

Specific progress and achievements of thematic groups

- The contract of **EMODnet Bathymetry** ended in December 2018; their final report was submitted in February. In the meantime, the same consortium has been granted a new contract following an open tendering process ensuring continuity of the EMODnet Bathymetry portal. The total number of CDIs decreased from 27168 to 26223 records under influence of a review of CDI submissions provided and managed by EMODnet Bathymetry partner SHOM. In the reporting period, a layer containing 198 high resolution DTMs has been finalised and made available in the map viewer – this layer allows zooming deeper on certain areas. In addition, the best-estimate European digital coastlines data layer was also integrated in the map viewer/Bathymetry Viewing and Downloading service.
- April has been a productive month for **EMODnet Geology** with the release of a number of new data products, including: (i) multiresolution seabed substrate data layers; (ii) geomorphology, pre-Quaternary and Quaternary data layers; (iii) coastal behaviour; (iv) geological events and probabilities; (v) marine minerals; and (vi) submerged landscapes. In collaboration with the EMODnet Secretariat, a guideline and timeline was developed to facilitate the coordination of communication in the form of news articles as well as the release of feeds, web maps, downloads and metadata on the same time.
- **EMODnet Seabed Habitats** completed the creation of a draft version of the updated EUSeaMap, which is now ready for internal quality assurance by regional leads from partner organisations. The composite data layers for the GOOS Essential Ocean Variables seagrass, macroalgae and live coral have been collated by the extraction of relevant data from the catalogue of individual habitat maps from surveys, and made available as web services via the Habitats portal. They will also appear on the map viewer as soon as an updated version of it goes live in April. To facilitate the dissemination of seabed habitat data to end users, a Python workflow was developed to improve the spatial data infrastructure and automate data management within the portal.
- **EMODnet Physics** has initiated a collaboration with Van Oord, a Dutch company with experience as an international marine contractor company with main activities in dredging, offshore wind and offshore oil and gas. They collect data globally, but in particular in the North Sea (e.g. wave buoys,

tide gauges). In addition, the EMODnet Physics together with SOOS have re-initiated collaboration with PANGAEA in order to integrate some of their data into the EMODnet Physics portal.

- On Valentine's Day (14th of February) **EMODnet Biology** launched a new version of the Data Download Toolbox (including additional parameter filters and different data download types), which was accompanied with a peak in the number of visitors. The lot added 12 new datasets and updated three existing datasets, which are all available through the download toolbox. Each of the partners provided an update of their status in the delivery of the data. The EMODnet Biology team is working on assigning a DOI to the data products available in the recently launched European Atlas of Marine Life. In addition, they worked on publishing a story per product explaining the scientific background of the product and including links to the workflows and code used to create the products.
- On the 11th of March 2019, **EMODnet Human Activities** launched its first series of Vessel Density Maps, an important Milestone for the project. The Web Coverage Service serving the density maps is currently being tested. More in the pipeline is a new dataset on nuclear plants, which is planned to go live in the second half of April. Also new and up and running are the new web map viewer features, including layer transparency, searching and exporting tabular data defined by a region of interest and printing maps.
- The EMODnet **Central Portal** is the main gateway to EMODnet data resources and information hub, as shown by the release of eight news items. These news updates were predominantly related to the release of new or updated data products by the portals (e.g. the vessel density map of EMODnet Human Activities) and ten new "Map of the Week" announcements for the European Atlas of the Seas. Six newly published use cases demonstrate the importance and benefit of EMODnet – one use case was added for EMODnet Bathymetry, Biology and Chemistry, for Bathymetry and Physics combined, two on Human Activities. The information that was initially on the Coastal Mapping portal has been integrated into the EMODnet Bathymetry project, and the portal entry has been integrated in the "Data Portal Overview" on the Central Portal.
- The number of raw ('as is') data submissions published on the **Data Ingestion Portal (DIP)** has increased over the past three months (January-February-March) from 263 to 449; of these, 172 submissions are now also available in national and European portals (the number available was 57 in the previous quarter). The proportion of Human Activities related data has exceeded Biology and Geology related data. An additional of 151 submissions are currently under processing to make them compatible to EMODnet data standards and Quality Control procedures. Furthermore, progress has been made with the development of the 'matching service' for data-wanted post-its. On the DIP website, data-wanted posts now feature a matching button, which links directly to a subset of submissions in the View Submissions service.

EMODnet data portals usage

The thematic portals not only report updates on their progress, but they also provide the EMODnet Secretariat with user statistics based on a set of progress indicators and monitored by the monitoring tool Matomo (Awstats for the DIP). The summary below covers the three-month period January-February-March 2019. Some statistics for the Central Portal are reported as well.

- As reported above, the number of CDIs in **EMODnet Bathymetry** decreased by about 3.5% under influence of a review of CDI submissions provided and managed by Shom. In this reporting period, there were overall less visitors: while there was a 10% increase in the number of unique page views of the Home Page (though a 14% decrease in the number of page views), there was a 20% decrease in number of unique page views of the CDI Data Discovery and Access service and the Bathymetry Viewing and Downloading service. Opposite to the situation at the end of 2018, there was now an increase in the number of old (version 2016) DTM tiles downloaded (40%, from 226 to 316) and a slight decrease in the number of new (version 2018) DTM tiles downloaded (18%, from 12262 to 10030).

- Compared to the previous period, all **EMODnet Geology** web pages have been viewed more often: the number of unique page views increased from 889 to 1022 for the Home Page, from 190 to 303 for the Map Viewer, and from 261 to 357 for the Products page. In the reporting period, 112 products downloads were done, which means a decrease of 10% compared to the previous quarter.
- **EMODnet Seabed Habitats portal** made available a number of data products, including new records to products related to survey point data. No new datasets were added during the reporting period. The portal has been popular during the reporting period, with increased unique page views for all pages: increases in unique page views were reported for Home Page increased from 234 to 1615, the map viewer (unique page views from 277 to 1615), and the web services (33 to 266). Overall, less manual downloads of data products happened in the reporting period (decreases between 11 and 50%). The portal however did report increases in the number of web service requests for a number of products (e.g. OSPAR database and Collection of individual habitat maps from surveys, and data layers related to the EASeaMap2016).
- Increases in the number of platforms from three up to 50% across almost all subthemes (except for Atmospheric parameters) were reported in **EMODnet Physics**. The number of unique page views has decreased slightly by 16% (987 to 824), while the number of page views increased by more than 90% (1322 to 2531) indicating that the same users return regularly to the portal. Yet, the number of (unique) page views decreased by on average 65% in both cases. Over the past quarter, 150% more data download requests were done (from 2534 to 40990). In addition, a decrease in the number of data product download requests was recorded (from 372 to 157).
- Although the release of the new Data Download Toolbox resulted in a temporal peak in the number of visitors of **EMODnet Biology**, the total number of unique page views for the Home Page as well as the Download Toolbox page was lower compared to the previous reporting period (from 849 to 767, and from 262 to 254 respectively). The homepage of the European Atlas of Marine Life however, reached more unique page views than at the end of 2018 (from 363 to 488). The number of manual data file downloads has seen a drop of 64% (582 to 290).
- Few datasets related to Fisheries (Monthly first fish sales) and Aquaculture (Marine Finfish) were updated in the **EMODnet Human Activities** portal, resulting in a slight increase in the number of records for both topics. The portal reporting positive trends in the number of unique page views, both for the homepage (+34%, from 643 to 865) and the map viewer (+77%, from 865 to 2698). The dataset on Macro- and Microalgae remains a popular download (+18 downloads since last quarter), but also the datasets on Offshore installations (+52 downloads), Pipelines (+46 downloads), Natura 2000 areas (+25 downloads) and many others have been downloaded more frequently. Zip files containing vessel density map pictures were downloaded 100 times since the release of the vessel density maps.
- The start of the New Year brought along a slight decrease in the number of unique page views for the **Central Portal** Home Page (-4.5%, from 6613 to 6319). The entry pages to the individual portals however, have seen slight increases in unique page views (from 2 to 51%; apart from Geology, where a slight decrease of 3% was reported). The EMODnet Secretariat has been very active on Twitter, resulting in an 11% increase in number of Twitter followers. In the Central Portal GeoViewer, new data layers were added from various fields (e.g. the vessel density maps of Human Activities, the new seabed substrate map at scale 1:100k of Geology) – the total number of map visualisations slightly increased from 3161 to 3515.
- In the first quarter of 2019, the number of unique visitors of the **Data Ingestion Portal** stayed stable (on average 2000 per month), which is on average 1000 unique visitors less compared to the last quarter of 2018. On the contrary, the number of data submissions started increasing again after a quiet period around Christmas (on average, from 350 to 600 data submissions in total).



Challenges to be addressed

- Preparing a data layer containing a collection of high resolution DTMs with different resolution was challenging. Yet, the resulting layer was successfully integrated in the **EMODnet Bathymetry** Viewing and Downloading service.
- The release of a number of new **EMODnet Geology** products went hand in hand with a number of challenges. For instance, a new arrangement of the titles in the portal menu had to be done in order to allow quick comparison of Geological Event and Probabilities data at different scales. Short-distance variability in the coastal behaviour data had to be smoothed to deal with overlapping measurements at 1:20 000 000 scale. The work package on Minerals is led by a service contractor to the GSI (Geological Survey Ireland), whose contract ended in mid-March. The GSI sourced external funding and could grant an extension of the contract for the duration of 6 months.
- Ensuring an overlap between the former and current project coordinator, and thus ensuring continuity in communication and work procedures, was the main and only challenge reported by **EMODnet Biology**.
- KIS-ORCA, the owner of the submarine cable dataset, requested **EMODnet Human Activities** to remove their data from the portal. Currently, negotiations are ongoing to seek a solution.
- For this quarter, no challenges were communicated by **EMODnet Seabed Habitats** and **EMODnet Physics**.

User feedback

All thematic portals are easily reachable through their dedicated helpdesk. Some thematic portals have even set up a live chat, enabling them to help people instantly. As is usually the case, technical queries constitute the majority of the requests received by the individual portals. In this reporting period, questions related to download support (of data, metadata, files), the existence of certain data, data policy (e.g. acknowledgement), or case studies (e.g. a teacher wanted to introduce EMODnet Seabed Habitats to students). The start of 2019 proved to be a calm period for EMODnet Geology, who received no user feedback.

Recent meetings and events

Last autumn, the EMODnet Secretariat attended 13 meetings, and among these, around 5 were related to the organisation of the upcoming second edition of the OpenSeaLab Hackathon. Some other events attended were:

- As per habit, the EMODnet Secretariat welcomed interested students at a booth at the yearly **VLIZ Marine Science Day** (13 March 2019) in Bredene (Belgium). Next year, the 20th edition of the event will be celebrated.
- EMODnet attended the **25th Session of the IOC Committee on Oceanographic Data and Information Exchange** in Tokyo, Japan in mid-February (18-22 February 2019). The EMODnet Secretariat presented a poster and gave a presentation about EMODnet and the European marine data management and sharing landscape with a focus on new developments from EMODnet, SeaDataNet and Copernicus Marine Service.
- EMODnet was also present at **Ocean Dialogues** (Brussels, Belgium) at the end of March (18-19 March 2019), and gave a presentation about the European Atlas of the Seas (EAS).

Upcoming EMODnet meetings and events

- The third **Marine Knowledge Expert Group Meeting** will take place on the 3rd of May in the offices of Directorate General for Maritime Affairs and Fisheries (DG MARE) in Brussels. During these meetings, focus is put on promoting and enhancing the usability of EMODnet and providing advice on how ocean data accessibility can support Blue Economy.
- EMODnet's second edition of the **Open Sea Lab** Hackathon will be preceded by a **Kick-off event** on the 24th of May in the Royal Museum of Fine Arts in Brussels. Registrations are open since mid-April – EMODnet hopes to welcome at least 50 interested participants, who would also be motivated to join the Hackathon in September in Ghent.

More information

More detailed information can be found on the EMODnet thematic and sea-basin checkpoint portals, also accessible through the [EMODnet Central Portal](#).

EMODnet Data and Data product portfolio: <http://www.emodnet.eu/data-portfolio>

EMODnet for Business brochure: <http://www.emodnet.eu/emodnet-business-brochure>

Thematic portals

- EMODnet Bathymetry - www.emodnet-bathymetry.eu
- EMODnet Geology - www.emodnet-geology.eu
- EMODnet Seabed habitats - www.emodnet-seabedhabitats.eu
- EMODnet Physics - www.emodnet-physics.eu
- EMODnet Chemistry - www.emodnet-chemistry.eu
- EMODnet Biology - www.emodnet-biology.eu
- EMODnet Human Activities - www.emodnet-humanactivities.eu
- EMODnet Coastal Mapping - <http://www.emodnet.eu/coastal-mapping>

Sea-basin checkpoint portals

- North Sea checkpoint - www.emodnet.eu/northsea/home
- Mediterranean checkpoint - www.emodnet-mediterranean.eu
- Arctic checkpoint - www.emodnet-arctic.eu
- Atlantic checkpoint - www.emodnet-atlantic.eu
- Baltic checkpoint - www.emodnet-baltic.eu
- Black Sea checkpoint - www.emodnet-blacksea.eu

Data Ingestion Service

- Ingestion and safe-keeping of marine data - www.emodnet-ingestion.eu