

19th EMODnet Technical Working Group and 1st Task Force

19th/20th March 2026

Meeting minutes

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1 Meeting details

19th EMODnet Technical Working Group Meeting and 1st Task Force, Spring 2026

Date and time: 19 and 20 March

Location: Remote

Meeting Chair: Dr Antonio Guarnieri (EC, DG MARE), Dr. Conor Delaney (Technical Coordinator, EMODnet Secretariat)

Participants: EMODnet Secretariat, EMODnet Portal Technical team, EMODnet Thematic and Data Ingestion Coordinators, CINEA, EC DG MARE

2 List of TWG Actions

Table 1. EMODnet TWG and Task Force, List of Actions

N°	Action	By whom?	JIRA	Deadline
1	To develop a simpler JIRA overview report.	CP_Team		TWG20
2	EMODnet Secretariat to release the script for harvesting data from monitor.emodnet.eu to the thematics via the EMODnet Github.	Tim Collart		TWG20
3	Follow up with thematics via JIRA on the development of the new progress indicator workflow.	Matteo Mikos/ Nathalie Tonné		TWG20
4	Automated reports from EA to be shared with thematics.	Secretariat		TWG20
5	Seabed Habitats to follow up with Bathymetry about error effecting EUSeaMap.	Helen Woods	EM-972	TWG20
6	EMODnet Bathymetry agrees to work with the Secretariat to produce a technical blog post.	Thierry Schmitt		TWG20
7	Biology to follow up with CP_Team/Secretariat on whether to report taxa presences only or also absences.	Joana Beja		TWG20
8	Chemistry to let the CP_Team know as soon as the ERDDAP service is ready for the user	Eugenia Molina		
9	CP_Team to meet DI team to manage handover	Conor Delaney		
10	EMODnet Ingestion to reach out to Secretariat to promote the workshop roadmap.	EMODnet Ingestion		TWG20

N°	Action	By whom?	JIRA	Deadline
11	EMODnet Physics to send EMODnet Secretariat and DG Mare which data have been linked to Ocean Best Practice.	Antonio Novellino		TWG20
12	TWG to achieve this metadata harmonisation by Q3 2026	Tim Collart		Q3 2026
13	Secretariat to liaise with SBH to include the “Obsolete tagging” to older version of datasets within metadata harmonisation guidelines	Nathalie Tonne		TWG20
14	Bart Vanhoorne to look into this ticket. Dick Schaap to add the slides to the ticket. (EM-1189 - Query to Product Catalogue does not provide full answer)	Bart Vanhoorne	EM-1189	
15	EMODnet Geology will liaise this with the thematics to get to a common format to be used for Bibliographic References.	Uffe Larsen / Task Force		TWG20 or next Task Force meeting
16	EMODnet Geology will liaise with thematics to develop a common XLS style sheet for Feature Catalogue information in EMODnet.	Uffe Larsen / Task Force		TWG20 or next Task Force meeting
17	Thematics to test the Chatbot and note any issues observed.	Conor Delaney		TWG20
18	A Confluence page to be set up that shares information on AI development across EMODnet.	Conor Delaney		TWG20
19	Bart Vanhoorne to create a one-page manual for the tool and circulate to the TWG	Bart Vanhoorne		TWG20
20	The EDITO data flow diagram to be further worked on to take into consideration the Geology use case.	Tim Collart		TWG20
21	Joana to follow up with interested people on the updates to the Product level descriptions	Joana Beja / Task Force		TWG20 or next Task Force meeting

3 Meeting minutes

Thursday 19th March 2025, 10:00-15:30 CEST

3.1 Welcome & introduction (Antonio Guarneri (DG MARE) & Conor Delaney (EMODnet))

Conor Delaney welcomed everyone to the 19th edition of the Technical Working Group (TWG).

Antonio Guarneri (DG MARE) stood in for **Zoi Konstantinou** who could not be present. He indicated that the EMODnet Data Ingestion contract is ending at the end of March. The transition will be smooth and transparent. Unfortunately, there will be a gap in service for a couple of months, during which final deliverables will be submitted and a handover will be prepared and done. A disclaimer will be published on the Portal on the last day of the Ingestion Phase.

Antonio explained that the tasks for the Task Force are not written in stone. Some tasks will be done by the EMODnet Portal Technical Team (CP_Team), some by the thematic lots.

3.1.1 Action List from EMODnet_18TWG

Action	Description	Status	Who?	Remarks	JIRA
1	Continue to update the FAQ page for frequently encountered issues in the helpdesk	Ongoing	Secretariat	Updated since last TWG	
2	Follow up on the Arctic view that Bathymetry would like to have	Done	Thierry Schmitt		EM-1156
3	Create a ticket for each thematic to map the missing terms in SeaDataNet data transport formats vocabulary , so that then can be added and each thematic can implement the format using the vocabulary	Done	Tim Collart		EM-1220 & subtask per thematic
4	Create Jira ticket for implementing the metadata updates for Ingestion.	Done	Tim Collart		EM-1219
5	Follow up with Biology on how the EMODnet R tutorials can be integrated with the emodnet.wfs/wcs R packages developed by Biology	In Progress	Tim Collart and Joana Beja		
6	Biology to organise meeting with DG MARE to discuss BFIAT R Package	Done	Joana Beja	NA	NA
7	Secretariat to check the status of the Data Ingestion PPT and push it forward so that it can be published and shared with the EU project officers.		Kate Larkin		
8	CPTeam to meet Geology to discuss how to style XML metadata document. Uffe to open a JIRA ticket on this.	Open	Uffe Larssen		EM-1206
9	CP_Team will follow up with Geology separately and provide all documentation needed for ECL and HighCharts JavaScript library	Done	CP_Team		

Action	Description	Status	Who?	Remarks	JIRA
10	Geology to open a Jira ticket on the format of Bibliographic references	Done	Uffe Larssen		EM-1207
11	Set up meeting with EMODnet Human Activities to plan the publication of the NetCDF Vessel Density on EMODnet	Open	CP_Team		
12	EMODnet Human Activities to be invited to share a ppt next TWG on server security, providing an overview of their experience.	Done	Alessandro Pititto		
13	EMODnet Physics to update the information on the consortium members on the Physics section of the EMODnet portal.	Done	Antonio Novellino		
14	EMODnet Physics to create a ticket about including an animation in the central portal that describes the growth in the number of sensors at sea over time.	Open	Antonio Novellino		
15	EMODnet Physics to make a JIRA ticket on the developments they want to highlight global data in the Map Viewer and then to meet CP_team to discuss	Open	Antonio Novellino		
16	Recommendations on metadata to support MSP to be assessed/taken up by the EMODnet task force	Ongoing	Task Force		
17	DG MARE to discuss internally what resolution is desired then a meeting is needed with CP_Team to have clarity and guidelines on this matter.	Ongoing	DG MARE	Logo to be supplied to external sites	

3.2 Updates from Central Portal technical team

3.2.1 JIRA overview and usage (PPT: [EMODnet_19TWG_JIRA_update](#))

- **Matteo Mikos (EMODnet Secretariat)** shows the Jira usage update, showing a growth in the number of Jira tickets, we are resolving more tickets than being created.
- **Alessandra Giorgetti (EMODnet Chemistry)** It would be interesting to have the absolute number of open tickets per thematic, to check whether these have been decreasing or not.

Action 1 for CP team: To develop a simpler JIRA overview report.

3.2.2 OGC service monitoring (Tim Collart) (PPT: [EMODnet_19TWG_OGC_Service_Monitoring](#))

Tim Collart (EMODnet Secretariat) gave an update on the OGC/INSIRE compliance. This is tracked in the EM-14 ticket:

- Since last TWG Biology resolved issues where records changing UUIDs (Universally Unique Identifier).
- Seabed Habitats, Dataset Metadata URLs are improving. Most EMODnet thematics have Metadata URLs to all their layers.
- Quality of service monitoring requirements met for all services except for the Seabed Habitats.

Question: Antonio Novellino (EMODnet Physics) asking if something similar as this monitoring can be implemented for the quarterly reporting from the EMODnet thematics

- **Bart Vanhoorne (EMODnet Central Portal)** notes that the data is available on the monitor.emodnet.eu website, there only needs a script to parse the data and create graphs.

Action 2: Tim Collart to release the script for harvesting data from monitor.emodnet.eu to the thematics via the EMODnet Github.

3.2.3 Map Viewer update (Conor Delaney, EMODnet Secretariat)

Conor Delaney presented map viewer updates. Bilbomatica has developed the map viewer. A couple of releases have happened since last TWG. The updates in January included:

- Applying a request about projections (a disclaimer indicating why things might change when you change projections) (EM-1156).
- An issue with external layer functionality was fixed (EM-1214).

The ongoing development is the updating of the JavaScript libraries, which were not up to date, and this had halted the upgrade to the 3D functionality of the MapViewer. At the moment they are testing the map viewer again, with a view to release the beta version soon.

Altia (Bilbomatica) are working on documentation to support the open sourcing of the MapViewer code, which will include information on how to deploy the map viewer independently from EMODnet, and on how the community can add code to MapViewer.

Event tracking of interactions with the Map Viewer was requested from DG MARE. **Tim Collart** clarified that the EMODnet portal technical team (CP_team) had a meeting with Europa Analytics. The way code had been implemented was based on PIWIK pro documentation, but for security reasons the DG MARE have a custom implementation. They asked us to put together what exactly what we want to do, so they can help us implement it. During beta testing, the CP_Team will bring the thematics in the loop.

3.2.4 Progress monitoring major update preview (Q2 2026) (Nathalie Tonné/Conor Delaney) -

The progress monitoring team aim to reduce the reporting burden on the thematics. Changes will not be implemented until Q2 2026. Nathalie Tonné (EMODnet Secretariat) presents the proposed changes:

- Current system:
 - Narrative (MS WORD file).
 - Indicator Spreadsheet (MS EXCEL file).
- New system:
 - Indicator spreadsheet will be replaced by a MS SharePoint online spreadsheet.
 - All quarters will be in one spreadsheet per year.
 - These spreadsheets will be made accessible and maintained by the secretariat.
- Aim:
 - Improve quarterly oversight.
 - Provide at a glance insight into trends.
- Some indicators will be dropped:
 - Web services.
 - Europa Analytics Web stats.
 - We can potentially put the webstats on the CP.
 - Some proposed new indicators (data per sector) will be added.

Matteo Mikos (EMODnet Secretariat) gives a demonstration of the shared spread sheet.

Action 3: Secretariat to follow up with thematics via JIRA on the development of the new progress indicator workflow.

Questions from Joana Beja (EMODnet Biology):

- This is a step in the right direction and notes that reporting on communication (meeting and events) is now being done at the quarterly level (rather interim & final).
- Some question on the data volumes per products. This page will be huge for each of the products
 - We will no longer require you to report this per product (rather aggregated by subtheme).
 - **Joana Beja** and **Dick Schaap (EMODnet Bathymetry/Chemistry)** agree with this approach

Nathalie Tonné: We will ask for the contacts to complete the communications and events shared spreadsheet.

Question from Joana Beja: Will the information be made available to the public?

- Comments from **Tim Collart:** In the longer term we can make the information available as a dashboard.
- **Antonio Guarnieri (DG MARE)** it indicates it will be useful for DG MARE to be able to download this information.

Comment from **Conor Delaney:** All progress monitoring changes are pending confirmation from CINEA

Action 4: Automated reports from EA to be shared with thematics.

3.2.5 Tracking of web services (OGC & ERDDAP) Bart Vanhoorne (VLIZ/CP_Team)

We will collect statistics on the downloads from the web services (not covered by Europa Analytics).

- We started to set up a system to collect your logs centrally.
- We are still working on this and will pick it up in the following weeks:
 - Once we have a mature system we will get back to the thematics to install the software to get your logs.

11:00 - 11:30 - Coffee Break

3.3 Technical Updates from EMODnet Thematics & Data Ingestion

3.3.1 EMODnet Bathymetry - Thierry Schmitt (EMODnet Bathymetry):

- During the first year of the contract, we have worked on inventorying the bathymetry datasets.
- Last month technical meeting with data providers, we brought findings together and discussed strategy for regional DTMs generation and bathymetry Grid updates.
- Highlighted new datasets coming from data providers (for each seas basin) ... most of the time we see an update of the Bathymetry coverage there is now relatively limited new coverage. This time
 - There are updates to small areas in the Bay of Biscay.
 - In the Caribbean there has been new data contributions and discussions are ongoing to bring in data for over lapping areas from colleagues at NOAA who have been creating a similar DTM.
 - We have also been working on the collaborative tool (GLOBE + CVE) on features highlighting differences between old and updated bathymetry datasets for helping discussion.
- Questions on the use of the bathymetry product generated by Copernicus Marine Services:

- Global coastal **SDB** (Satellite derived bathymetry) at 100m resolution. It is based on Satellite data; **Thierry Schmitt** gives an overview of the generation methods of calculating bathymetry from satellite images.
- Bathymetry is now starting the analysis of the SDB in comparison with the bathymetry currently provided by EMODnet. We have been asking colleagues to provide test areas for comparison with the CMEMS SDB.
- Next item is on the exploration of the use of AI to help in detect artifacts in the datasets.
- Bathymetry are also working on AI interpolation methods:
 - super-resolution: add texture on low resolution.
 - diffusion method: learning from a relationship between void-filled DEM methods and reality.
- Regarding open Jira tickets: **Thierry Schmitt** asks if for the EM-972 - GEBCO 2022 error affecting EUSeaMap (via EMODnet DTM) issue can be closed as the new 2024 release should be resolving it.
 - **Helen Woods (EMODnet Seabed Habitats)** Replies regarding the Ticket: the issue will be raised at a meeting on next Monday (23/03/2026) and SBH will follow up with an answer.

Action 5: Helen Woods to follow up with Bathymetry about error effecting EUSeaMap.

Antonio Guarnieri recommends that there should be a lineage of any transformation in the workflow highlighted in the metadata of the product.

Conor Delaney comments on the fact that the slides presented by Thierry Schmitt could be very useful as input into the Technical Blogs and reminds the lots to contribute to said blogs.

Action 6: Thierry Schmitt agrees to work with the secretariat to produce a technical blog post.

Dick Schaap notes that doing interviews once in a while would be an easier way of providing information to the Technical blogs.

3.3.2 EMODnet Biology Joana Beja presented an overview of the progress.

Since last TWG, EMODnet Biology has had 2 data harvests. The number of data records has increased while the number of datasets has slightly decreased (this is normal as some datasets are combined or (temporarily) removed, etc.). Furthermore, a data training workshop for Black Sea data providers is being prepared. She indicated that 52 data products are published, of which 12 from external providers. Various contacts were made with providers that host data products on cetaceans, but without any reply so far. Work is ongoing regarding the tutorials, to help users with OGC WCS and OGC WFS R packages, which are for all of the thematic lot web services (so Biology-focused but including products from other lots). Regarding product usability, Biology realises this can be better, it is a matter of time and resources. No new products were published since last TWG.

A lot is going on behind the scenes. In terms of data publication, this will move from a quarterly to a weekly frequency. Various upgrades have been made to **IPT (Integrated Publishing Toolkit)** and GeoServers. The concept of EurOBIS IPT has changed in terms of use (change from exit-only instance, to in- and out-tool). Work is ongoing regarding publication of data absences; it will be discussed with the Secretariat whether to report on taxa presences only or also on absences.

Action 7: Biology to follow up with CP_Team/Secretariat on whether to report on taxa presences only or also absences.

Regarding Regional Sea Conventions (RSCs), there has been quite a lot of activity. Various meetings have been scheduled with the RSCs in the coming months. With **OSPAR**, there's a line of work to make an inventory of biodiversity data available in the OSPAR Data & Information Management System. For **HELCOM**, they will be sharing biodiversity database (following a grant from DTO-BioFlow), and for **the Barcelona Convention** a meeting is scheduled next week with INFO RAC.

A questionnaire was sent to past/ongoing LIFE Programme projects, few responses were received (over 50 were contacted, 8 replied).

A workshop will be planned targeted at EU Funded projects; to give them the info they need to ensure their data will flow into EMODnet Biology.

3.3.3 EMODnet Chemistry - Eugenia Mollina presents for Chemistry.

Chemistry new phase started in October 2025, and now fully launched in the tasks of this new phase. There is steady growth in the coverage of the raw data highlighting the continuous efforts on NODCs in updating their data.

- Once a year, MARIS make a thematic harvest to produce aggregated datasets for Chemistry:
 - Validated and harmonised then compiled in a single files per theme.
- Eutrophication and contaminants have been published.
- Marine litter planned for next April 2026.
- Chemistry continues to maintain OGC Web Services as well as ERRDAP and the Web-ODV, **Eugenia Mollina** noted that this helps to cover the wide variety of users of Chemistry's data
- Chemistry is almost done with the update of ERDDAP service
 - Data collections for Eutrophication, contaminants have been included.
 - Remaining work left for the Marine Litter collection.
- Chemistry is Organizing an On-site training on Data workflows, Metadata, Data submission, Vocabularies and more. Training to potentially be held online as well.

Collaborations:

- Within the BC2026 project a systematic workflow has been developed to integrate data from CMEMS.
- Furthermore, Chemistry contributes to several international initiatives.

Eugenia Mollina raises an issue where Chemistry has found a lack of consistency in information displayed in the thumbnails of datasets. A Jira ticket **EM - 1232** was created to gain insight and solve this issue.

Eugenia Mollina presents an overview of the Central portal Task force contributions of Chemistry consortium

- Proposal to implement of a central EMODnet data Catalogue for individual datasets.

Comment from Tim Collart on ERDDAP:

- Please let us know once the Service is ready for users so it can be added to the web service documentation.

Action 8: Chemistry to let the CP_Team know as soon as the ERDDAP service is ready for the user.

Question for Tim Collart: For this new version of the Eutrophication products the CP_team is harvesting the THREDDS server but there are certain issues with it. Can the Chemistry ERDDAP be used as back-end for the MapViewer?

- Regarding Hosting the DIVA maps on ERDDAP, Chemistry does not currently have enough resources to also upload the DIVA layers. The Eutrophication data that is there are the collections (in TableDAP)
 - **Tim Collart** notes that the the CP_Team will continue to use the current approach where the DIVA maps are hosted in the CP ERDDAP

Question from Dick Schaap: There are several partners having resources for the Task Force, and these partners are asking if they could contribute further.

- **Conor Delaney** answers that the Task Force was created to relieve the workload of the CP_Team, so options for the involvement of partners will need to be reviewed in line with the Terms of the Task-Force contract.

3.3.4 Data Ingestion - Dick Schaap presents for Data Ingestion

- He shows the submissions to Data Ingestion categorised by the thematics. Chemistry and Physics with the largest share of data submission by far.
- Recent webinars:
 - Recently a webinar on the roadmap for harmonization of data management in offshore licenses procedures date. The roadmap will soon be published on the EMODnet portal.
 - Blue Cloud webinar on industrial data, working with HUBocean in touch with the ocean decade.
- After 10 years the consortium has decided to stop and make way for a new consortium:
 - Next week final project meeting. They will collect material for final report and discuss roadmap and handover.
 - Handover:
 - They are planning to collect all the information, will be provided to CINEA who can make it public.
 - As discussed with CINEA, the submission service will be halted on the 20th of March 2026 till the new consortium can take over.
 - A notice will be put on the Data Ingestion section to inform the users.
 - The submission service will be made invisible for the user, but they want to keep the system (both back end and front end) available.

Action 9: CP_Team to meet DI team to manage handover

Question from Tim Collart, who asks about the impact on the thematics:

- **Dick Schaap** indicates they will work with the new consortium to make sure it is properly handed over. They will try to do what is best for EMODnet.
- **Antonio Guarnieri (DG MARE)** thanks Dick for all the work done in the last 10 years. The new consortium is currently under evaluation. They are already part of the EMODnet community.
- **Dick Schaap** indicates that in the next few weeks they can start on the handover of the software (containerized applications, including the database) and the metadata.

Alessandra Giorgetti (EMODnet Chemistry) would like to come back on the workshop on offshore licenses. She participated in the workshop and indicated that it was really interesting as it was highlighted by that community that the activities of EMODnet are really helping them manage and harmonize data. This has given a lot of visibility to EMODnet. It would be good to promote the release of this roadmap.

Action 10: EMODnet Ingestion to reach out to Secretariat to promote the workshop roadmap.

Question from Conor Delaney: Is there data in the pipeline that is currently in the process:

- **Dick Schaap:** The submission service is a continuous system, so several submissions are in different stage
 - There are about 100 in the pipeline that are in the process of being integrated (either to phase 1 or Phase 2).
 - Some of the submissions have also been rejected.

12:30 Break for Lunch

14:00 EMODnet TWG Afternoon session

3.3.5 Geology - Uffe Larssen presented updates from EMODnet Geology.

- New types of products and data will be added in the new phase. A transition to a new server will be done (containerization of the GeoNetwork via Kubernetes).
- Several map layers where we want to show charts in the map viewer. We don't have ERDDAP. So, to make the charts, we have a REST service, and a webpage that shows the diagram.
- The various WP leaders were asked to edit their metadata, but many are editing data and there is no tool to check whether the metadata has been registered correctly.

Secretariat is working on a tool to check the correctness of the metadata.

Geology can keep adding to EM-625 - Phase IV products Done as a sub ticket. (ticket on configuration of web viewer)

3.3.6 Human Activities - Nick Earwaker presents

- They present the list of datasets that were updated:
 - Route density 2025 are now updated.
 - Vessel Density maps for 2024 are now updated (they had some issues to get the data, but this has been resolved). It still needs to be published on the EMODnet Portal.
- They have updated their architecture with a focus on security:
 - Internet traffic routed through Cloudflare since summer 2025
 - For web services:
 - Blocks Denial of Service and SQL injection attacks to the web service.
 - Browser compatibility check disabled so that tools can be used in QGIS.
 - They were impacted by a big Cloudflare outage for several hours.
 - Performance of EMODnet Human Activities has improved.
 - Potential client compatibility issues:
 - Automated clients or API's may be blocked.
 - Web Application Firewall may have to be tuned.

Question from *Tim Collart*: a few weeks ago, we received a question from a user implementing an ArcGIS server, having issues where WMS were presented. Has this been resolved?

- **Nick Earwaker**: He does not know of advancements on solving this issue.

3.3.7 Physics - Antonio Novellino presents for Physics

- We have found an issue on ERDDAP to manage > 100,000 datasets, work has started to fix it, but we think it will take some time before we are able to fix it:
 - Solving this issue will however also help us make a step towards including this data in EDITO
- **Antonio Novellino** notes that with the new 'Days of recording' might be a better indicator to show the available data recorded at platforms.
- **Antonio Novellino** asks if a widget can be integrated in the static content page of Physics showing 'days or recording' that gives an indicator of available data, so that this information is updated automatically. Otherwise, an image/Screenshot can be published that would need to be replaced every other time.
- Most of the latest (3months) data is on operational data, we need a better split between operational and Research data.
- In collaboration with Data Ingestion and Chemistry, reviewing metadata to increase visibility of data providers. Also, a collaboration with Ocean Best Practices to improve the metadata.

- Aiming to create a unified template of metadata harmonization to be shared with data providers, also a collaboration with OBPS is looking to map Best Practices of platform types
 - Currently: From 600 available, we interviewed 140 and collected 59 best practices.

Current activities:

- Review of components in the infrastructure.
- Looking for update the workflow of data provision to EDITO.
- Open dialogue with the Polar region initiatives.

Open question from **Conor Delaney**: What are the minimum metadata needs to improve discoverability of data products. Reports on this would be a great contribution to the Task Force.

- **Alessandra Giorgetti**: I think we did this exercise with the purpose of connecting operational workflows with institutional archives, (mapping metadata exercise between OGS and AMRIT (<https://www.amritproject.eu/>) group) the exercise is still ongoing and a meeting will take place to gather insights and conclusions from the exercise.

Alessandra Giorgetti: when is a best practice a best practice?

- **Antonio Novellino**: A Best Practices are defined by the OBPS system. The current system maps practices in 3 Level, the 59 I highlighted are from the top level as defined by OBPS.

This work was triggered by **Jay Pearlman (Ocean Best Practice)** and **Antonio Novellino**.

- **Comment from Joana Beja**. In Biology we are assessing what documents describe data collection methodologies. We will ask colleagues, when they send new data, or updates, if they have methodology documents, to link them as publications in the metadata. **Jay Pearlman** asked Biology to consider doing this work (similar to Physics), though we don't always have this information.

Action 11: Antonio Novellino to send to the EMODnet Secretariat and DG Mare which data have been linked to Ocean Best Practice.

3.3.8 Seabed Habitats Helen Woods presenting for Seabed Habitats (SBH)

SBH is in the middle of a bulk upload of others habitat maps, habitats models and products from OSPAR. Migration to the GeoServer is complete, now in the testing phase.

In terms of Metadata harmonization, all new metadata should now meet the standards. **Helen Woods** asks the CP_Team for a tool to evaluate the results of metadata harmonisation. Furthermore, we are working on a new product for OSPAR combining survey maps and EUSeaMap.

In terms of technical questions:

- SBH want to make sure to retain old metadata for some products, but a user can be confused when searching the catalogue for the most recent version of e.g. EUSeaMap.
 - There's a status field in the metadata where a product can be flagged as e.g. obsolete.
- Will all models submitted through Ingestion, be published before the closure of Data Ingestion end of this month? Seabed Habitats then seeks guidance on data coming from EU projects through Ingestion.
- Where to find information about Horizon projects which will be sending data to EMODnet
 - What are expectations on projects / EMODnet.
 - How do we deal with cross-thematic data.

Tim Collart suggests offering to the projects to be present in the catalogue as an first step. But when data are added through the Ingestion Phase 1 it will take time before it ends up in the catalogue (doing the validation steps can take more time).

Joana Beja: we have external products that were submitted via Data Ingestion, that are only in the catalogue. Other products that we consider as useful to showcase in the map viewer, are included in the map viewer. The decision is on the thematic to accept the ingestion, and whether to stay in Ingestion Phase 1 or go to Phase 2. Regarding where to find info about current projects: Biology are organising a workshop for EU funded projects, so we have a list of ongoing projects that are working on biodiversity. Some may also work on SBH. This information (no personal details were shared) was given by Nicolas Segebarth in DG RTD. Otherwise, you can look at CORDIS (<https://cordis.europa.eu/>) or other pages that list EU or Horizon Europe funded projects. It is difficult to find as we are disconnected from the funding stream. “Ending up” might just mean a record in the metadata catalogue. In our workshop, we encourage data providers to follow the standards we work with, because we do not have the resources to do the work ourselves. They have to do this themselves internally. We also don’t chase them. We don’t have to comply with project end dates, if they only submit their data at the end of the project. Some projects are cross-thematic, we don’t have an integrated approach in EMODnet to do this; currently it is approached on a case-by-case basis.

Dick Schaap: Regarding Data Ingestion, the data can be published “as is” (phase 1) or work it up so it can be used in products (phase 2). We do not accept products from third parties, only data.

Antonio Guarnieri: Cordis is probably only the one platform that can help you. For the expectations, yes we would like to have all research projects to contribute and intercept them without going after them. We should follow-up on this.

Joana Beja: If its data, we will accept it. For data products, it’s a different approach, some are exposed via web services in the map viewer, some taken up in the catalogue.

Joana Beja: If they are modelled shapefiles then they are products. SBH also had quite a few products.

Dick Schaap: We always look at the character of the data. If I see maps (e.g. SBH) I accept them. Biology collections, it is sent to **Joana Beja** to see if she can use it.

Tim Collart: For the formats in the metadata, **Tim Collart** indicated we will plan to develop a monitoring tool to assess metadata. We already have scripts to pull information from the records, but without evaluation. Regarding the tag for active/outdated data, we don’t have a consensus yet, but this could be useful especially for products where it is useful to have various version available. Would be good to have a common way to implement this.

- **Alessandra Giorgetti**: with DOI, there is a way to have father child relationships to show the latest version.
- **Eugenia Molina**: You can implement to link from the outdated version to the newest version of the same product.

3.4 Task Force on metadata harmonization

Conor Delaney: This is the first meeting of the Task Force (TF). The new Secretariat are tasked to lead the Task Force and needs to be ready to assess technical needs when requested by the DG MARE and CINEA. It was hard to understand what the Commission wanted before the contract started. **Conor Delaney** presents a few slides, showing snippets of the thematic Tender Specifications (they have to dedicate resources) and Secretariat Tender Specifications. The Secretariat is mandated to lead the TF and needs to be ready to

assess technical needs when requested by the DG MARE and CINEA. Secretariat and TWG to work together to tackle technical issues and questions.

Antonio Guarneri stated that EC DG MARE expect a collaboration involving all thematics under coordination of CP_Team aiming to support the work of the CP_Team and tackling issues that might arise. We have already identified issues (metadata harmonisation), for which the work has already started. It is not the objective that thematics develop new concepts and put it on the table.

We need to get to the stage where the thematics do research on certain issues, share with the Task Force so it can be taken forward. It is about taking leadership by the thematics to investigate, as all thematics now have extra resources to do so.

There's a discussion whether the TF should be separate from the TWG or remain combined. The topics will be started in Jira and continuously worked on. **Conor Delaney** suggests then that the thematic taking ownership of tasks, should join the CP_Team meetings to present their findings.

Metadata updates are tasks identified by the CP_Team that the thematic lots need to do. **Tim Collart** presents ongoing progress on metadata harmonisation; we have chosen to focus on **Distribution Info** and **Resource Constraints** at first. Progress on Distribution Information and Resource Constraint sections:

- EM-1069 - Thematics to provide deadline by when metadata records can be adapted to meet the guidelines.
- On the format information: A lot of the formats are disappearing but there are still too many different formats.
- On the distribution function and protocols: All thematics follow the controlled vocabulary, and although there are still many different Protocols and some standardisations needed, we are moving in the right directions.
- On the Legal Constraint:
 - Most thematics are implementing this correctly, issues include Typos, wrong (out of vocabulary) constraint description and blank fields.

The secretariat aims to develop an automated evaluation tool for creating a comprehensive report on the status of Metadata Harmonisation efforts.

Conor Delaney notes that when something becomes part of the Task force it becomes High priority so I would aim to have the Metadata Harmonisation done by Q3

Uffe Larsen asked how is the metadata overview table constructed, do they provide information on each dataset?

- **Tim Collart** answers: Yes, and I can provide it to you upon request.

Action 12: TWG to achieve metadata harmonisation by Q3 2026

3.4.1 Proposal to harmonize the 'data provenance' and 'temporal reference' sections (to support MSP) Nathalie Tonné

- **Nathalie Tonné** presents additional fields to take up into the metadata harmonisation focussing on two metadata fields recommended by the NESBP project for the MSP community. We take the same approach
 - Secretariat to create a guidelines document
 - Thematics to review to come to a common set of guidelines
- Fields to update
 - Temporal reference:

- Date of creation & date of last revision of the dataset. Proposal to also add this information to the map viewer
 - Metadata date = date when the metadata record was created or updated
- Data provenance
 - Responsible organisation and point of contact
 - Distributor
 - Data Owner
 - Lineage
- **Tim Collart**, noting we do not want to ask thematics to add EVERY role but the secretariat believes adding at least those above would be beneficial

Action 13: Secretariat to liaise with SBH to include the “Obsolete tagging” to older version of datasets within metadata harmonisation guidelines

3.4.2 Proposal to review data/product level description, EMODnet levels are now part of the BODC controlled vocabulary (EM-1196) (Joana Beja)

- EM-1196 - Review Data/product level description is ongoing.
- Will have to use the Task Force to further develop the controlled vocabularies and level definitions.

Action 21: Joana Beja to organise a meeting after the easter period to agree on the updates to the product level descriptions

Friday 20th March 2026, 10:00-12:30 CEST

3.4.3 GeoNetwork functionalities

- Decide on the available filters in the GeoNetwork Catalogue EM-612 - EMODnet Catalogue Tags & Filters Done
 - Work was kicked off in EM-612 - EMODnet Catalogue Tags & Filters Done but we need to summarise this information into one solution. Looking for a volunteer from the thematics to integrate this.
 - **Dick Schaap could lead this**
 - **Bart Vanhoorne:** We can define what we want, but it needs to be within the technical possibilities of the GeoNetwork. By default, a lot of filters are possible but there are some limitations
- EM-1189 - Query to Product Catalogue does not provide full answer (Dick Schaap)
 - Dick Schaap shows a presentation on this issue.
 - From <https://edmo.seadatanet.org/report/3884> you can go to the Ingestion Service (this links to the central portal), but the query doesn't return the result (even through there are results there).

Action 14 Bart Vanhoorne to look into this ticket. Dick Schaap to add the slides to the ticket

3.4.4 Web page formatting of metadata

- EM-1207 - Format of Bibliographic References (**Uffe Larsen**)
 - **Uffe Larsen** presents a slide on this. There is a need to come to an agreement on the DOI/citation style to use in the attribute table of a dataset (which can be rendered in the viewer)

Action 15: **Uffe Larsen** will liaise with the thematics to get to a common format to be used for Bibliographic References.

- EM-1206 - Styling of Feature Catalogue info in the EMODnet Product Catalogue (Uffe Larsen):
 - The feature catalogue XML is a document linked to the metadata document hosted on their own domain.
 - There is currently no styling of this document, just displays raw XML.
 - Uffe Larsen suggests on a common XLS style sheet to show this information.

Action 16: *Uffe Larsen* will liaise with thematic to develop a common XLS style sheet for Feature Catalogue information in EMODnet.

- *Eugenia Molina* on the EM-1232 - Information regarding organization in the thumbnails of the product catalogue:
 - All contacts/roles are harvested but a random role is presented in the tile view.
 - It is important that the role is taken into account in this tile view.

3.5 AI @ EMODnet - Discussion -

In EDITO there's an AI chatbot, produced by Mercator Ocean international (MOi), which we have fed with content from EMODnet Portal. Could be great if thematics could experiment with this chatbot in the next few weeks. EDITO team will share the link.

- Going forward, content on EMODnet will be further evolved. EDITO chatbot is used as an experiment, to maybe use a chatbot in EMODnet at a later date.

Action 17: Thematics to test the Chatbot and note any issues observed.

Bathymetry is working on an AI approach to fill gaps and do a better interpolation. It is very image oriented. They have 3 methods described on the EMODnet Portal. Based on this, they will consider how to use it further in the production. It is suggested this kind of things might also be applied in other lots. **Thierry Schmitt** mentions that it is an opportunity to work across the different thematics.

Joana Beja indicated that, for the biodiversity community, GBIF (Global Biodiversity Information Facility) through a competition or grant, enabled a group to develop a chat-IPT to convert datasets into DarwinCore format (<https://chatipt.svc.gbif.no/>). What we do in EMODnet Biology in parallel, a consortium member is working on developing a tool to support users in mapping (biotic and abiotic) variables to BODC NVS2 vocabularies, BODC had developed a prototype in the context of another project, but we tested for biology datasets and it didn't work. If we could map e.g. 80% of parameters in a dataset, the objective is to contact GBIF to couple it with their chat-IPT tool. I don't see Biology adopting a similar approach to Bathymetry as we expose point data not gridded. The approaches will differ per thematic, depending on the data type (e.g. data points, vs polygons, etc). **Joana Beja** has no knowledge of consortium partners, especially those creating products, using AI tools to support with product creation, as a new tender will be published next year, this is something that Biology will definitely need to think about.

Dick Schaap indicated that a lot is happening in terms of taxa identification in Biology from images, which is also relevant for Chemistry (marine litter). These identifications are through machine-learning algorithms not AI bots. Some groups are developing AI for macrolitter identification, but this is not possible to do for microlitter.

Joana Beja confirmed that is indeed the case, not only for taxa identification through images, but also work is being done for sound identification and potentially matching to specific taxa.

Tim Collart indicated that modelled context protocol, a standard that allows you to expose information & services to AI agents, so they can exploit those resources to generate responses. Some early development on tooling for this is already ongoing:

- Model context protocol server for GeoNetwork developed by EEA <https://github.com/eea/eea-geonetwork-mcp>.
- Early development for MCP server to expose GeoServer (OGC) functionalities: <https://github.com/mahdin75/geoserver-mcp>.
- These are early developments but something we should keep an eye on as it will allow EMODnet services to be better integrated and exposed to AI agents.

Conor Delaney suggested creating a Confluence section on the Task Force, to group resources there regarding AI and other topics.

Action 18: A Confluence page to be set up that share's information on AI development across EMODnet.

3.6 Duplicate checker developed by VLIZ: <https://duplicates.emodnet.eu/>

- It creates a list of possible duplicate metadata records by comparing:
 - Titles.
 - Bounding boxes.
- With settings you can filter to specific thematics and tune the duplication checking parameters.
- When you mark it as a non-duplicate it will not come up again.
- We can leave it public like now or put this behind and authentication?

Action 19: Bart Vanhoorne to create a one-page manual for the tool and circulate to the TWG

Question. If we find duplicates? Should we be removing them from the catalogue?

- This is to be decided by the thematic(s) involved
- **Joana Beja** confirmed that duplicates between EMODnet Ingestion and Biology will not be removed, but they should always be pointing to the other resource. This approach was agreed upon a long time ago and there are no intentions of changing

11:00 – 11:30 Coffee Break

3.7 EDITO2 Updates

3.7.1 Data intake flow and role of EMODnet (Tim Collart)

Tim Collart presented how data flow intake will work in EDITO. The main components:

- (1) submission request form - a submission form for users to complete, making clear what the use case the user will submit.
- (2) publishing toolkit.
- (3) ticketing system to help deal with data submissions if they need to be quality controlling by EMODnet community or within EMODnet.

Regarding (1), we will make distinction between larger data repositories and data streams, or single dataset submissions, which we think will be the majority. For thematics, the first task is to publish existing thematic data and products in EMODnet on EDITO. The thematics will be responsible to make sure all their EMODnet data and products are published. Then second task for the thematics, will be to work with new data

submissions. A user will create a ticket assigned to one of the thematic, then you will have to check whether relevant for uptake. If so, you will scientifically validate the datasets. The further flow to EMODnet is the same as before. The third role for thematic, is to check if applied data publishers can become trusted data publishers. If you decide the data stream should become part of EMODnet instead of EDITO, this can be discussed at the EDITO Community Expert Group.

Question from Joana Beja: What do you mean with big data repository? Biodiversity data are shared via IPT instances, there is a possibility to link databases to IPT to automate data publication. I wouldn't want to push this through EDITO.

- **Tim Collart** answers: The thematic is in the position to decide that the data is very relevant to EMODnet and should be redirected to EMODnet.
- **Joana Beja:** What if through the other option there are outputs, e.g models, that could also be relevant to the thematic lots? The decision should not be made only by Copernicus as that might mean that important external outputs are bypassing the thematic lots.
- **Tim Collart:** What we want to get in EMODnet are the earlier level processed data rather than modelled.
- **Joana Beja:** We don't ingest modelled data into EMODnet Biology, but we do publish external products, especially those for which we do not have specific expertise.
- **Tim Collart:** Some publishers publish data models. We expect much more single datasets. If there are relevant models, it will be driven through the submission ticketing system where you will be assigned. We want to make the distinction early, if it is really relevant in situ data, we can decide early it is relevant for EMODnet.
- **Joana Beja:** This system could bypass the requirement for research projects to submit/publish their data to/in EMODnet. What is requested in the tenders, is that the data should be in EMODnet.
- **Tim Collart:** For the EMODnet case, ideally, it will go into EMODnet. For any data or product that the user wants to share for re-use, will either go directly to EMODnet - if it is more a model, Copernicus can then say, this should probably be in EMODnet. The user fills in a submission request form, but not including metadata details.

Question from Antonio Guarnieri: The preferred way through for data must be through EMODnet. Through EDITO we want to intercept data for EMODnet. Was this data flow chart developed with Mercator Ocean international (MOi)?

- **Tim Collart:** This has gone through several iterative feedback loops with MOi. We have decided with them, what will be publicly discoverable needs to have a scientific validation process in place, either by EMODnet or (in case of models within MOi's expertise) by MOi/Copernicus.

Question from Dick Schaap: let's say there's an environmental agency submitting data to EMODnet, ending up in our products. This is a bottom-up approach. If they wish to be published in EDITO, we will have to explain that this is the case. What kind of products or data will go straight to EDITO, that is not submitted to EMODnet or CMEMS.

- **Tim Collart:** yes, we don't want to replace the pyramid. When the user comes to EDITO with data, we will only accept quality-controlled data. We don't want to make EMODnet into a Christmas tree. Second answer: some projects to climate models on impacts on a specific parameter. This is data we think can go into EDITO, but where the validation will be done by Copernicus colleagues as they have the expertise. If thematic refuse products, we will not allow the user to publish it in EDITO (only if scientifically validated).
- EMODnet data published on EDITO, will appear under "EMODnet", as a sort of EMODnet-seal (seals of approval). Same for Copernicus data.

Question from *Uffe Larsen*: for Geology, we have products published and not individual datasets. Potentially the user can be confused when they see “in situ data submissions”.

- **Tim Collart**: the diagram will be worked out more. The questions in the form will be fleshed out further, to understand to which domain their data are relevant.

Action 20: The EDITO data flow diagram to further worked on to take into consideration the Geology use case.

3.7.2 EDITO Publishing Toolkit (EPT) (Frederic Leclercq)

Fred Leclercq presents the progress on the EPT that will facilitate the data intake onto the EDITO data lake.

- The software will have multiple components:
 - Metadata (STAC) builder.
 - Metadata validation.
 - Data upload functionality (in S3).
 - Data transformation to ARCO format.
- Timeline
 - First release in summer '26.
 - EMODnet thematics will be able to review & test the tool.
 - Followed by frequent release cycles - agile workflow.

Technical guidelines will be published on the EDITO website and will be circulated to the CEG (& the thematics)

3.8 AOB

- Next meeting in September

12:30 End of day

4 Annex I: List of Participants

Table 2. List of participants for the EMODnet 19th TWG and 1st Task Force meeting.

EMODnet component / entity	Name	Affiliation
EMODnet Data Ingestion	Dick Schaap	MARIS, The Netherlands
EMODnet Bathymetry	Thierry Schmitt	Shom, France
EMODnet Biology	Joana Beja	VLIZ, Belgium
EMODnet Biology	Bart Vanhoorne	VLIZ, Belgium
EMODnet Chemistry	Alessandra Giorgetti	OGS, Italy
EMODnet Chemistry	Eugenia Molins Jack	OGS, Italy
EMODnet Geology	Anu Kaskela	GTK, Finland
EMODnet Geology	Uffe Larsen	GEUS, Denmark
EMODnet Human Activities	Nick Earwaker	Lovell Johns, Italy
EMODnet Physics	Antonio Novellino	EET, Italy
EMODnet Physics	Beatrice Scotto	EET, Italy
EMODnet Seabed habitats	Helen Woods	SYKE, Finland
EMODnet Central Portal	Frederic Leclercq	VLIZ, Belgium
EMODnet Central Portal	Bart Vanhoorne	VLIZ, Belgium
EMODnet Central Portal	Joana Beja	VLIZ, Belgium
European Commission	Antonio Guarnieri	DG MARE
EMODnet TWG Chair	Conor Delaney	Seascope Belgium
EMODnet Secretariat	Nathalie Tonné	Seascope Belgium
EMODnet Secretariat	Matteo Mikos	Seascope Belgium
EMODnet Secretariat	Tim Collart	Seascope Belgium
EMODnet Secretariat	Kate Larkin	Seascope Belgium

With apologies from:

EMODnet component / entity	Name	Affiliation
European Commission	Zoi Konstantinou	DG MARE