EMODnet Thematic Lot n°1 – Bathymetry

EASME/EMFF/2019/1.3.1.9/Lot1/SI2.836043

Start date of the project: 20/12/2022 (24 months)

Centralisation Phase

Quarterly Progress Report 6

Reporting Period: 01/04/2024 – 30/06/2024

Contents

Disclaimer

1. Highlights in this quarter

Task 1 - <u>Maintain and improve a common method of access to data held in repositories:</u>

During the reporting period, the number of survey data sets has increased again from 42837 to 43064 CDI entries, while the number of Composite DTM entries increased from 282 to 290. New CDI entries for bathymetry survey data sets were contributed by 8 data providers, originating from 8 countries. There are a few more CDI entries expected from one data provider, but one can say that the data population through CDIs and CDTMs is completed for this phase of the contract as all data providers have populated new data sets to contribute to the planned 2024 DTM new releases for European seas and Caribbean Sea region.

Task 2 - <u>Construct products from one or more data sources that provide users with information about the distribution and quality of parameters in time and space:</u>

As follow-up to the data gathering and population of the CDI and Sextant catalogue services, data providers have also undertaken pre-processing of the associated data, using GLOBE and following EMODnet methodology, to 1/32 * 1/32 gridded data sets which are transferred to the Regional Coordinators for use in the updating of the Regional DTMs. A workshop with Regional Coordinators together with core partners has taken place 16 – 17 April 2024, hosted by GGSgc in France, for monitoring and discussing the RDTM generation process. At the meeting, Regional Coordinators have shared their experiences and annotations made with the Collaborative Virtual Environment (CVE) that was made available by Ifremer to all Regional Coordinators after the Full Meeting in September 2023. They also learnt about new functionality as developed by Ifremer facilitating to export the annotations made in CVE and to read these into the Globe software. It is now available in the latest Globe version 2.5.1, that has been released at the April 2024 meeting.

In addition, CORONIS has made further progress with upgrading 3D viewing software, while Deltares progressed with developing new releases of the Satellite Derived Coastlines for LAT, MSL, and MHW, and the inventory of national coastlines and baselines.

Task 3 - <u>Develop procedures for machine-to-machine connections to data and data products:</u>

EMODnet Bathymetry continued to operate and maintain several catalogue services and web services, which are being harvested and/or directly feeding the Central Portal services. The services are following INSPIRE principles and their operations are being monitored from the Central Portal with good results. EMODnet Bathymetry is regularly testing the functionality of the Central Portal and following up feedback from users. This is aimed at spotting possible bugs in the back-office systems of EMODnet Bathymetry or at the front-office interfaces of the Central Portal. Any identified bugs are reported to JIRA for further action. Also, shortcomings or requests for improved functionality are being gathered from internal consortium testing and following user feedback and these are submitted to the CP team through JIRA and/or at TWG meetings as wishes for future developments. Most will be directed towards optimisation of functionalities, while also additional functionalities might come forward.

Task 4 - <u>Contribute data, data products and content to a central portal that allows users to find, view and download data and data products:</u>

New EMODnet Bathymetry products are planned near the end of 2024 and these will be then be added and published at the Central Portal following the methodology that was earlier developed and successfully applied for the 2022 product releases.

Task 5 - <u>Contributing content to dedicated spaces in Central Portal:</u>

Each thematic has its own dedicated space at the Central Portal where it publishes its so-called 'narrative'. The maintenance is done by sending an updated document to JIRA which is then processed by the EMODnet Secretariate. During the reporting period, EMODnet Bathymetry has prepared an update of the narrative, which was handed over to the EMODnet Secretariat for publishing at the EMODnet Central Portal. The new narrative is now operational.

Task 6 - Ensure the involvement of regional sea conventions:

Secretariats of the Regional Sea Conventions are kept up-to-date of the EMODnet Bathymetry services, inter alia through regional partners. The 2024 EMODnet bathymetry products, planned for release by end 2024, will again provide a good opportunity to reinforce the good relationships with the secretariats of the Regional Sea Conventions who are kept up-to-date of the EMODnet Bathymetry services and products, and where possible, engaged in wider promotion and contributing to mobilising more potential data providers and product users.

Task 7: Contribute to the implementation of EU legislation and broader initiatives for open data:

On a global scale, good synergy is continued with GEBCO and the Seabed 2030 project. In practice, the EMODnet DTM is considered as the European contribution to Seabed 2030 and as such fully integrated into the GEBCO DTM. This is strengthened by the fact that George Spoelstra (GGSgc) and Federica Foglini (CNR), both members of the EMODnet Bathymetry consortium, act as Chair and Vice-Chair of the GEBCO subcommittee TSCOM (Technical Subcommittee on Ocean Mapping). Recently, GEBCO had requested support from the EMODnet Bathymetry team to perform QA/QC activities on the draft GEBCO 2024 grid. This has been discussed at the EMODnet Bathymetry meeting of Regional Coordinators in April 2024 and as follow-up, feedback has been given to GEBCO.

Task 8 - Monitor quality / performance and deal with user feedback:

The overall performance of the portal and its services is continuously measured and its results are reported in the separate indicators spreadsheet. It demonstrates that Bathymetry and its services and products continue to be quite popular. The number of visits and downloads of the full DTM products are again high in the reporting period. User feedback is on the quality of the DTM product and the usability of the portal. Answers are directly provided to the users.

Task 9 - Maintain the existing thematic web portal for a maximum of six months from the start of the project:
EMODnet Bathymetry is maintaining the operation and maintenance of the various Bathymetry catalogues and web services that feed into the Central Portal, which provides the one-stop-shop.

Project management:

Shom and MARIS prepared the Q1-2024 progress report which was reviewed and accepted by the EU CINEA.

Milestone/Deliverable in numerical order	WP	Date due	Status (To do/ Delivered/ Delayed)	Date delivered	If Delayed: reason for delay and expected delivery date
D1.1: Quarterly concise progress reports	WP1	M4, M7, M10, M13, M16, M19, M22, M25	Delivered D1.1 a,b,c,d,e,f	M4, M7, M10, M13, M16, M19	

D1.2: Annual Interim report	WP1	M12	Delivered	M14	
D1.3: Final report	WP1	M24			
D1.4: Plan for service continuity, incl. docs and sources	WP1	M24			
D2.1: Upgraded guidelines for data pre-processing and population of metadata	WP2	M6	Delivered	M6	Annexed to D1.2
D2.2i: Training Workshop for data pre-processing and metadata population	WP2	M9	Delivered as part of meeting 25-26 Sept 2023 in Brest - France	M9	
D2.3: Pre-processed survey data sets and included in CDI Service	WP2	M12	Delivered	M15	
D2.4: Pre-processed composite DTMs and included in Sextant service	WP2	M12	Delivered	M15	
D2.5: Satellite Derived Bathymetry data sets and included in Sextant Service	WP2	M12	Delivered	M15	
D3.1: Upgraded guideline of EMODnet methodology for DTM production, including using prototype CVE	WP3	M9	Delivered	M10	Annexed to D1.2
D3.2i: Upgraded Globe software	WP3	M9	Delivered and presented at meeting 25-26 Sept 2023 in Brest - France	M9	Note that Globe is regularly updated upon request and made available publicly
D3.3i: Training and intercalibration Workshop	WP3	M11	Delivered	M16	Workshop of Regional Coordinators and Integrator in April 2024
D3.4i: Processed and pre-gridded data sets as input for RDTMs	WP3	M14	Delivered	M16	Status has been checked at meeting of Regional

					Coordinators in April 2024
D3.5i: Regional DTMs with common resolution of 1/16 arc minutes grid	WP3	M17	Well underway		Regional coordinators plan to deliver in or just after summer period
D3.6i: Best version HR DTMs for coastal waters and hotspots	WP3	M20			
D3.7: New EMODnet DTM incl Quality Index and loaded in EMODnet web services for viewing and downloading	WP3	M23			
D3.8: HR-DTMs loaded as separate layer in EMODnet web services for viewing and downloading	WP3	M23			
D3.9: Source reference layer in EMODnet web services to link to CDI and Sextant Catalogue services	WP3	M23			
D3.10: Refined best-estimate European digital coastlines in EMODnet web services for a range of vertical levels	WP3	M22	Well underway		
D3.11: Updated Inventory of existing and ratified baselines and registered claims / disputes under UNCLOS, for European countries at the portal	WP3	M22	Well underway		
D3.12: Methodology for assessing bathymetry between coastline and foreshore	WP3	M23	Well underway		
D4.1: Standard machine- to-machine	WP4	M3	Delivered	Operational since M0	

services delivered for common functionalities					
D4.2: Dedicated machine- to-machine services adapted / delivered for special functionalities	WP4	M6	Delivered	Operational since M0	
D4.3i: CVE optimised for reginal coordinators	WP4	M14	Delivered	M15	Status has been demonstrated at meeting of Regional Coordinators in April 2024
D4.4i: Globe software + GGSGC workbench upgraded with extra functionality	WP4	When required	Following requests and suggestions		
D5.1: Operational Help-desk	WP5	continuously			
D5.2: Monitoring data about visits and usage	WP5	continuously			
D5.3: Promotional material and up-to-date thematic space at central portal	WP5	continuously			
D5.4: Presentations at relevant conferences	WP5	Regularly			

2. Identified issues: status and actions taken

A. Priority issue(s) identified and communicated by CINEA/ DG MARE/ SECRETARIAT				
Priority issue	Status (Pending/ Resolved)	Action(s) taken/ remaining actions planned	Date due	Date resolved

B. Issues / challenges identified by the thematic assembly group itself				
Priority issue / challenge	Status (Pending/ Resolved)	Action(s) taken / remaining actions planned	Date due	Date resolved
EM-806 Increase zoom level for coastline	resolved	Action to be undertaken by CP to increase the zoom level. Pre-tiled level already existing	30/04/2024	15/04/2024
EM-703 Bathymetry narrative update	resolved	Narrative has been updated and published.	30/04/2024	May 2024

3. Communication assets

[In Table A, list peer reviewed publications directly (co-)authored by consortium and project partners in the reporting period. In Table B, list all non-peer reviewed publications (co-)authored. In all cases, indicate the type of publication, provide the full reference incl. title, volume and issue etc., and whether the publication is open or closed access.]

A. (Co-)Authored peer-reviewed publications in the quarter					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No

B. Other/non-peer reviewed types of publications (co-)authored in the quarter					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No

B. Other/non-peer reviewed types of publications (co-)authored in the quarter					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No

For a comprehensive overview of publications referring to/making use of EMODnet data and/or data products, please consult Google Scholar.

4. Monitoring indicators

[Refer to the standardised monitoring tool, i.e. Europa Analytics, to complete the indicators excel template, and provide a short explanation in the table below on the numbers and trends for each indicator when possible/applicable. Indicate clearly if monitoring was carried out using tools other than Europa Analytics.]

Comments on the progress indicators in the indicators spreadsheet		
Progress indicator	**Means of collecting figures**	**Comment**
1. Current status and coverage of total available thematic data A) Volume and coverage of available data	CDI catalogue service	There is a steady increase of CDIs with several data providers contributing CDI data sets for the production of the new 2024 EMODnet DTM.
What is your opinion on the data coverage within EMODnet for your thematic?	Considering population of CDI and Sextant catalogues	Overall, EMODnet Bathymetry has brought together an excellent data collection (CDIs and Composite DTMs), covering all European sea regions and compiled by 66 data providers.
B) Usage of data in this quarter	CDI RSM shopping ledger service	The number of downloaded CDIs is twice the amount as in previous quarter, but still in the normal order.
2. Current status and coverage of total number of data products A) Volume and coverage of available data products	Statistics from downloading at the Bathymetry system	The 2022 DTMs (Europe and Caribbean) and new HR-DTMs have been released in the first quarter of 2023. The number of these products is then frozen till the new release of the 2024 DTM and HR-DTMs which is planned for end 2024.
B) Usage of data products in this quarter	Analysing download statistics	The number of product downloads has decreased compared to the previous quarter. However, the dowloads in this quarter are still large and demonstrate the continuing interest of users in these EMODnet products. This concerns not only the HRDTMs and DTM tiles, but also of the Satellite Derived Coastlines package. Also, the number of WMS - WFS requests is again very high.
3. Internal and external organisations supplying/approached to supply data and data products within this quarter	CDI catalogue service	Eight data providers have submitted new entries as part of meeting the deadlines of the contract
4) Online 'Web' interfaces to access or view data	N.A.	No changes
5.1 Daily number of page views of EMODnet Thematic entry page	Europa Analytics	Daily number of page views of the Bathymetry narrative is quite steady and around 125, with some days higher. This is the static content. Unfortunately, we cannot see how the bathymetry map layers and products are visited
5.2 Quarterly total number of visitors, page views, unique page	Europa Analytics	The quartely numbers are reasonable as the bathymety narrative is a static story. See the earlier remark under

Comments on the progress indicators in the indicators spreadsheet		
Progress indicator	**Means of collecting figures**	**Comment**
views and percentage of returning visitors		5.1.This quarter the numbers are circa 10% lower than the previous quarter.

The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Europa Analytics, unless reported otherwise.