



EMODnet Thematic Lot n°3 – Seabed Habitats

EASME/EMFF/2020/3.1.11/Lot3/SI2.843624

Start date of the project: 25/09/2021 (24 months)

Centralisation Phase

Quarterly Progress Report (6)

Reporting Period: 01/01/2023 – 31/03/2023

Contents

1. Highlights in this quarter	3
2. Identified issues: status and actions taken.....	18
3. Communication assets	24
4. Monitoring indicators.....	28
5. Annex: Other documentation attached	31

Disclaimer

The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the CINEA or of the European Commission. Neither the CINEA, nor the European Commission, guarantee the accuracy of the data included in this study. Neither the CINEA, the European Commission nor any person acting on the CINEA's or on the European Commission's behalf may be held responsible for the use which may be made of the information.

1. Highlights in this quarter

[List the quarterly progress for each of the tasks specified in Section 1.4.1 of the Tender Specifications; provide an explanation for any tasks in which progress has not been noted. Provide in the table a list of all Milestones and Deliverables as from the technical workplan in numerical order, the date due, status and date delivered. Max 2 pages]

Task 1: Maintain and improve a common method of access to data held in repositories

We have created an updated habitat map submission guidance document which combines and replaces the content that was previously stored on web pages on the thematic portal. This is currently being reviewed and will be published on the central portal in due course.

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

Despite delays in the delivery of the new version of the EMODnet DTM (due at the end of 2022), the preparation of data for EUSeaMap has progressed well. EMODnet Bathymetry provided us with an unofficial copy of the DTM in April, which allowed us to prepare depth-based input data, such as light availability on the seafloor. This delay has caused a cascading delay on our side, but unless there is a problem with the DTM (which we have not been able to analyse as much as we would have liked due to time constraints) that is more critical than that mentioned in the issues (see section 2, table B), we do not anticipate any delay in the delivery of EUSeaMap.

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

We have implemented a method for indirect cascading of problematic external web services to ensure the data is integrated into the thematic data holdings and accessible to users going forward.

Task 4: Contribute data, data products and content to a central portal that allows users to find, view and download data and data products

We continue to work closely with the CP team to facilitate the optimum display of ESH data and products on the CP map viewer, finding solutions to issues as they arise in a timely manner. During this quarter we have worked with the CP team to implement updates to the layer filters and download links on the viewer layers, and to address user feedback via JIRA to enable users to find data products post centralisation. We have also added a single new composite data product which was received through EMODnet Ingestion and is now published as a phase 2 product.

Task 5: Contribute content to dedicated spaces in the Central Portal

During this quarter we have contributed multiple tools and guidance documents to the central portal to facilitate the user experience post centralisation.

Task 6: Ensure the involvement of regional sea conventions (RSC)

We have continued to provide support to the OSPAR data call for threatened and/or declining habitats.

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

Nothing to report

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

We receive instant alerts about web performance problems and resolve them as necessary. We had once instance of prolonged downtime during March of this quarter. This was due to a problem with an external Web Map Service from which we cascade several geoserver layers. To mitigate against this issue we have made changes to the way we interact with external services to utilise more direct data ingestion rather than cascading of services. We have received several pieces of feedback through our inbox and via the JRA helpdesk and have always respond and resolve any issues promptly

Task 9: Maintain the existing thematic web portal for a maximum of 6 months from the start of the project

During this quarter the re-direct links to the central portal were implemented and the thematic web portal was shut down. We set up a new download filestore and ensured the existing download links were updated in our metadata records, Geoserver layers and central portal viewer information. We communicated the centralisation to our users and encouraged them to explore the new central portal going forward.

Status of the Milestones and Deliverables listed in the workplan					
Milestone/Deliverable in numerical order	WP	Date due	Status (To do/ Delivered/ Delayed)	Date delivered	If Delayed: reason for delay and expected delivery date
D1.01: Modified substrate data product including biogenic substrate and data not possible to include in EMODnet Geology product, but which would improve the broad-scale seabed habitat map for Europe (EUSeaMap) [dependent on new product from Geology]	1	25/05/2023	To do		
D1.02: Confidence layer for modified substrate data product published	1	25/05/2023	To do		

D1.03: A ready-to-use DTM for EUSeaMap	1	25/05/2023	Delivered	31/03/2023	
D1.04: Confidence layer for the DTM product published	1	25/05/2023	To do		
D1.05: EUNIS-style habitat classification in the Caspian Sea for broad-scale habitat mapping	1	25/09/2022	Delivered	31/12/2022	
D1.06: EUNIS-style habitat classification in the Caribbean Sea for broad-scale habitat mapping	1	25/12/2022	Delivered	31/12/2022	
D1.07: Environmental layers for the Caspian Sea ready for EUSeaMap	1	25/12/2022	Delivered	30/09/2022	
D1.08: Environmental layers for the Caribbean Sea ready for EUSeaMap	1	25/12/2022	Delivered	31/12/2022	
D1.09: Halocline layer for the Baltic Sea ready for EUSeaMap	1	25/05/2022	Delivered	25/08/2022	
D1.10: Threshold for the Caspian (GeoEcomar, Ifremer, HCMR): ok Thresholds for the Caribbean (Ifremer, HCMR): ok Threshold for the circa/deep circa in the Baltic (University of Stockholm): ongoing Threshold for the upper/lower bathyal in the Mediterranean: ongoing Threshold for the upper/lower bathyal in the Black Sea: canceled	1	25/05/2023	To do		
D1.11: Broad-scale seabed habitat map for Europe, Caribbean Sea,	1	25/09/2023	To do		

and Caspian, in EUNIS 2019 and MSFD broad habitat classifications, including a column that describes the habitat descriptor classes					
D1.12: Confidence assessment for updated broad-scale seabed habitat map in all considered classifications	1	25/09/2023	To do		
D1.13: Confidence associated to all environmental layers published	1	25/09/2023	To do		
D1.14: A R script automating the calculation of environmental layers at the seabed from a CMEMS product archives	1	25/09/2022	Delivered	25/10/2022	
D1.15: Technical report published	1	25/09/2023	To do		
D1.16: Well-documented R code and ArcGIS models used to construct the broad-scale seabed habitat map	1	25/09/2023	To do		
D1.17: For Swedish waters, a modelled habitat map based on Geology's novel type of seabed substrate map for habitat modelling [dependent on applicability if this new type of map to habitat modelling]	1	25/12/2022	Cancelled	NA	Cancellation of this deliverable accepted by CINEA and DG MARE on 14 September 2022.
D2.01: An expanded library of maps of communities, biocenoses, biotopes and habitats for all of Europe, Caribbean Sea and Caspian Sea ingested and converted to	2	25/2/22-25/8/23	To do		

a standard format, with metadata for every map					
D2.02: An expanded collation of point records of communities, biocenoses, biotopes and habitats for all of Europe, Caribbean Sea and Caspian Sea ingested and converted to a standard format, with metadata for every dataset	2	25/2/22- 25/8/23	To do		
D2.03: Updated and integrated templates for habitat map data exchange formats	2	25/11/2021	Delivered	30/06/2022	
D2.04: Webinars, tutorials or other forms of training material on the EMODnet Seabed Habitats data submission process	2	25/12/2021	Delivered	31/03/2022	
D2.05: An expanded library of modelled maps of specific habitats for all of Europe ingested and converted to a standard format, with metadata for every dataset	2	25/2/22- 25/8/23	To do		
D2.06: Evidence of use of the EMODnet Ingestion and safe-keeping of marine data facility for ingesting data points, maps and models from third parties	2	25/09/2023	To do		
D2.07: Translation tables for coastal wetland types into one or more standard classifications	2	25/01/2022	Delivered	30/09/2022	
D2.08: A data submission process and protocol for coastal wetlands types maps and points	2	25/01/2022	Delivered	30/06/2022	

D2.09: Controlled vocabulary lists for classification systems published on NERC Vocabulary Server, as required	2	25/12/21-25/08/23	To do		
D2.10: A library of maps of Essential Fish habitats maps for major fish species in the Mediterranean, North East Atlantic and Baltic Sea ingested and converted to a standard format, with metadata for every map	2	25/2/22-25/8/23	To do		
D2.11: A data submission process and protocol for Essential Fish Habitats maps	2	25/01/2022	Delivered	30/06/2022	
D2.12: Formal protocol for data sharing and identification of relevant benthic data between EMODnet Biology and EMODnet Seabed Habitats	2	25/09/2022	Delivered	03/10/2022	
D2.13: Updated data model and guidance for benthic point data	2	25/09/2023	To do		
D2.14: A standard transformation between OSPAR T&D data schema and OBIS Schema to enable import into OBIS, including a test pilot run using the 2022 OSPAR T&D database	2	25/09/2022	Delayed		2022 OSPAR T&D database won't be published until 2023 Q2. In addition, there are plans to overhaul the schema of the OSPAR T&D database to better align it with other schemas, which is not due to be completed before the end of this project. Therefore it may not be possible or, at least, sensible, to complete this

					internal deliverable. If not, then it would also impact D2.15. However, these two deliverables were additional 'bonus' activities proposed by the consortium and are therefore not considered to be essential for the delivery of the tasks dictated by the technical specification.
D2.15: Agree a protocol with the OSPAR commission for the continued archiving of the public database within the OBIS network, pending success of D2.14	2	25/09/2023	To do		
D2.16: List of point datasets, maps and models available via machine-to-machine connections	2	25/11/21- 25/8/23	To do		
D2.17: Progress log for the ingestion of point data, maps and models	2	25/10/21- 25/09/23	Delivered	31/10/2022	
D3.01: A list of products to be created or updated and product specifications	3	25/03/2022	Delivered	19/10/2022	The list has been continuously updated in function of stakeholders needs. Our major concern was about the biogenic layer, but since we had access to the script produced by JNCC, work is progressing smoothly and a new deadline for the associated deliverable was set to May 2023.

D3.02: A combined, harmonized data product showing the best evidence for extent and distribution of the Essential Ocean Variable "Live hard coral cover" in Europe, with metadata (updated)	3	25/08/2023	To do		
D3.03: A combined, harmonized data product showing the best evidence for extent and distribution of the Essential Ocean Variable "Seagrass cover" in Europe, with metadata (updated)	3	25/08/2023	To do		
D3.04: A combined, harmonized data product showing the best evidence for extent and distribution of the Essential Ocean Variable "Macroalgal canopy coral cover" in Europe, with metadata (updated)	3	25/08/2023	To do		
D3.05: A combined, harmonized data product showing the best evidence for the extent of wetland type in Europe, Caspian Sea and the Caribbean, with metadata (new)	3	25/04/2023	To do		
D3.06: Data contributed to a harmonized data product showing the best evidence for extent and distribution of the Essential Ocean Variable "Mangrove cover and composition", with metadata (new, if required)	3	25/08/2023	To do		

D3.07: Evaluation of EFH approaches to determine map suitability to combine into products useful for fisheries management and biodiversity conservation	3	25/05/2023	To do		
D3.08: Combined, harmonized data products showing the best evidence for extent and distribution of habitats defined in other classifications in all regions, with metadata, depending on stakeholder needs (new)	3	25/08/2023	To do		
D3.09: An updated combined, harmonized data product showing the best evidence for the extent of biogenic substrate in all regions, with metadata (updated)	3	25/01/2023	Delayed		The OSPAR data used to create this product won't be available until April 2023. Delaying will also allow the new data uploaded in April 2023 to be integrated into the product.
D3.10: Report detailing the construction of the biogenic habitat data product (updated)	3	25/05/2023	To do		
D3.11: Report(s) detailing the construction of the data products defined by stakeholder needs (new)	3	25/09/2023	To do		
D3.12: Report detailing the construction of the Essential Ocean Variable data products (updated)	3	25/09/2023	To do		
D4.01: A web portal including a digital map, facilities for downloading data, metadata search and technical information	4	25/09/2021	Delivered	25/09/2021	

D4.02: Contribute to EMODnet Technical Working Group as necessary	4	As necessary	To do		
D4.03: Minutes & actions from Technical Working Group within 1 month of meeting	4	Within 1 month of each meeting	To do		
D4.04: Ad hoc changes to website and visual identity, as requested by Secretariat	4	25/10/21-25/03/22	Delivered	30/09/2022	
D4.05: A set of data schema standards for the provision of habitat data, built upon international standard.	4	25/09/2021	Delivered	25/09/2021	
D4.06: Method for indirect cascading of problematic external services prior to onward publication	4	25/12/2022	Delivered	11/11/2022	
D4.07: Habitat ground-truthing data from EurOBIS extracted via web services	4	25/12/2021	Delayed		As explained in the previous quarter; progress is pending some changes to the EurOBIS toolsets, but we are on track for the revised delivery date of 2023 Q3.
D4.08: IPT (or alternative) infrastructure for the publication of habitat data into EurOBIS	4	25/08/2023	Delivered	30/09/2022	
D4.09: Internal database of unpublishable habitat data for use in WP1 and to aid public discoverability	4	25/09/2021	Delivered	25/09/2021	
D4.10: A GeoServer web-server for the provision of OGC spatial web-services (WMS, WFS, WCS)	4	25/09/2021	Delivered	25/09/2021	

D4.11: A plan of action for the provision of key habitat datasets as attributed raster data	4	25/08/2022	Delivered	26/09/2022	
D4.12: A GeoNetwork INSPIRE-compliant metadata instance with OGC CSW capabilities	4	25/09/2021	Delivered	25/09/2021	
D4.13: Publication to the central portal of relevant data and products collected and created under WP1 and WP2	4	25/03/22 with updates at least every 6 months	To do		
D4.14: Website liaison and training node between lot partners/content creators and central portal team.	4	25/09/2021	Delivered	25/09/2021	
D4.15: Transfer of key habitat mapping resources from the thematic portal to the central portal	4	25/09/2022	Delivered	25/09/2022	
D4.16: Direct link to the HELCOM Mapping and Data Service, and similar services from other Regional Sea Conventions where feasible	4	25/03/2022	Delivered	30/06/2022	
D4.17: A direct data link to the ICES VME database, providing access to vulnerable marine ecosystem data	4	25/03/2022	Delivered	31/03/2022	
D4.18: Tracked issues and suggestions regarding the portal and services, and improvements made as a result.	4	25/09/2021	Delivered	25/09/2021	
D4.19: Abstracts submitted for annual INSPIRE conference and participation in	4	depends on conference dates	To do		

community forum where relevant.					
D4.20: Publication of relevant products, datasets and services through EOSC and EUODP	4	25/12/2022	Delayed		Partially delayed. Publication workflows through EUODP are already achieved. Input has now been received from the Secretariat so the work can restart
D4.21: Live operation of help desk 9-5, Mon-Fri	4	25/10/2021	Delivered	25/09/2021	
D4.23: Provision of Matomo (or similar as steered by secretariat) web analytics information to secretariat for reporting	4	25/09/2021	Delivered	25/09/2021	
D4.24: Statistics from OGC webservice usage - to be guided by secretariat.	4	25/12/2021	Delivered	31/09/2021	
D5.01: Evidence of efforts to ensure maximum coherence with data delivery to and from regional sea conventions	5	25/09/2023	To do		
D5.02: Updated review of RSC needs	5	25/01/2022	Delivered	16/12/2022	
D5.03: Liaise with ICES in advance of annual WG meetings to ascertain products they require for reporting on ToRs	5	25/05/2022, 25/05/2023	Delivered	31/08/2022	
D5.04: Tutorials for creating new maps from existing data	5	25/03/2023	Delivered	26/03/2023	
D5.05: Promotion of simple procedural guidelines for creating alternative data formats	5	25/03/2023	Delivered	26/03/2023	

from existing data formats					
D5.06: Tutorial on how to format habitat maps using templates and to simplify the data submission process.	5	25/03/2023	Delivered	31/03/2022	Delivered in advance of original planned date due to dependency with D2.04
D5.07: Evidence of engagement with relevant working groups and expert groups to gather feedback and needs of habitat data requirements and products that will help Member States to fulfil reporting obligations	5	25/01/22-25/09/23	Delivered	30/09/2022	
D5.08: Minutes of meeting(s) with EMODnet biology	5	25/03/2022	Delivered	31/03/2022	
D5.09: Communications plan	5	25/01/2022	Delivered	31/03/2022	
D5.10: New use cases on the EMODnet central portal	5	25/10/21-25/09/23	To do		
D5.11: A prominent summary of the data and data products available from EMODnet seabed Habitats web services	5	25/09/2022	Delayed		We have already published a summary of our data products for the ESH portal, the plan from our proposal was to expand on this to better highlight some of our products. With the portal centralisation we decided to put this on hold in case a more coordinated approach was developed that would highlight prominent data and products across all

					lots. Expected due date: 2023 Q3.
D5.12: Co-ordinated and sustained online presence: news stories, blogs, tweets, etc.	5	25/10/21-25/09/23	To do		
D5.13: Presentations and posters at conferences and cross-cutting meetings	5	25/10/21-25/09/23	To do		
D5.14: ESRI story maps / Infographics	5	25/03/2022	Delivered	31/12/2021	
D5.15: Record of all promotion and outreach activities	5	25/10/21-25/09/23	To do		
D6.01: Project management plan and project initiation document	6	25/10/2021	Delivered	30/11/2021	
D6.02: Project quality management plan and project audit document	6	25/10/2021	Delivered	30/06/2022	
D6.03: Consortium Agreement	6	25/10/2021	Delivered	31/03/2022	
D6.04: Participation in EMODnet SC meetings as necessary	6	As necessary	To do		
D6.05: Minutes & actions from Steering Committee meetings within 1 month of meeting	6	Within 1 month of each meeting	To do		
D6.06: Progress meeting 1 - WP leads	6	25/03/2022	Delivered	31/03/2022	
D6.07: Minutes & actions from progress meeting 1	6	Within 1 month of meeting	Delivered	31/03/2022	
D6.08: Progress meeting 2 - whole consortium	6	25/03/2023	Delivered	14/12/2022	

D6.09: Minutes & actions from progress meeting 2	6	Within 1 month of meeting	Delivered	14/12/2022	
D6.10: Quarterly progress report to EASME, DG-MARE and EMODnet Secretariat	6	15 Jan, 15 Apr, 15 Jul & 15 Oct each year	To do		
D6.11: Interim report	6	25/09/2022	Delivered	24/10/2022	
D6.12: Submission of the invoice for the interim payment	6	25/09/2022	Delivered	23/11/2022	
D6.13: Final report	6	25/09/2023	To do		
D6.14: Submission of the invoice for the final payment	6	25/09/2023	To do		

2. Identified issues: status and actions taken

[Provide an **overview of issues** identified by CINEA/ DG MARE/ Secretariat (Table A) in the past quarter - new as well as pending ones, the status of those issues, and actions taken to address them and/or roadmap with remaining actions planned to resolve the issues. In Table B, provide information about any issues and challenges identified by yourself.]

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
EM-88 (Sub-task) Seabed Habitats - Web Services MetadataUrl and DataUrl fields	pending	All metadata url issues resolved. No current outstanding problems but issue remains open as regular checks occur	none	
EM-146 (Sub-task) Seabed Habitats Quality of Service Monitoring: Several of the services did not meet the 99% availability this quarter, and one of the WMS didn't meet the performance requirement of 5 sec.	pending	substantial work has gone into investigating the causes of the performance issues and the development of a solution (the so-called 'self-healing' GeoServer. However, this solution is relatively novel as has come across several hurdles. Our next steps are to instigate a data cleansing process to find and eliminate any geometry issues and to add an additional Geoserver instance to help share the load.	none	
EM-339 (Sub-task) Collect names of Portal editors	resolved		none	29/11/2021
EM-347 (Sub-task) Collect fields/forms used on Seabed Habitats Thematic Portal	resolved		none	26/01/2022
EM-350 (Bug) Missing attribute in eusm2019_full_800 layer of Seabed Habitat WMS service	resolved		none	07/10/2021
EM-363 (Sub-task) Seabed Habitats to report on number and volume of downloaded data	resolved		none	21/01/2022

and data products by 29th of October 2021				
EM-383 (Task) SBH Grafana dashboard stopped tracking webpage Search Metadata	resolved		none	14/02/2022
EM-384 (Sub-task) SBH to produce an inventory of products	resolved		none	21/06/2022
EM-391 (Sub-task) SBH review of the new CP Map Viewer	pending	tasks complete to date but this issue remains open for future requests for SBH to review the CP	none	
EM-422 (Sub-task) Log4Jshell Update from SBH	resolved		none	07/11/2022
EM-495 (Sub-task) Seabed Habitats to report on number and volume of downloaded data and data products	resolved		09/02/2022	09/02/2022
EM-531 (Sub-task) SBH - EMODnet Catalogue Tags	resolved	we provided the requested feedback so consider this issue resolved. status according to JIRA: In Review	none	26/04/2022
EM-539 (Task) Seabed Habitats products' centralisation	resolved		none	16/03/2023
EM-543 (Task) Adding Seabed Habitats' layers to metaGIS	resolved		06/05/2022	29/09/2022
EM-558 (Bug) Seabed Habitats Catalogue no longer has any public records	resolved		none	03/05/2022
EM-570 (Sub-task) Feedback on CP Main Menu	resolved		30/06/2022	27/04/2022
EM-591 (Task) SBH Layers in the Map Viewer Content Management System	pending	working on the final numbers whilst migrating layers to the central portal	04/07/2022	
EM-611 (Task) Centralisation Checklist for review	resolved	JNCC completed this checklist for SH.	none	15/09/2022

EM-639 (Sub-task) Standardise the navigation menu on left hand side of page	resolved	JNCC responded to this on behalf of SH, so consider this to be resolved.	none	10/10/2022
EM-644 (Sub-task) Seabed Habitats to provide input to the Tools & Guidelines section	pending	Tools and guidelines have been added to the central portal. Still awaiting the addition of reports	none	
EM-652 (Sub-task) Seabed Habitats to review layer legends and add units where they are missing	resolved		none	11/10/2022
EM-664 (Task) TWG12-SBH to report on which filters are still required	resolved		none	16/03/2023
EM-665 (Task) TWG12 - CP & SBH to investigate if CP viewer can deal with layer group styles	pending	we have investigated this but it does not resolve the duplicated legend issue for group layers in the central portal. A temporary solution has been proposed but is still to be implemented	none	
EM-666 (Task) TWG12-Advanced filter option	pending	awaiting information on whether free text filters are an option	none	
EM-708 (Bug) Download Broken for Several Seabed Habitats Layers	resolved		none	24/01/2023
EM-713 (Epic) Switch on URL redirects on Monday the 23rd of January	pending	this is complete from the Seabed habitats perspective	23/01/2023	
EM-717 (Task) EMDOnet Seabed Habitats URL direct to new EMODnet portal	resolved		23/01/2023	25/01/2023

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-316 (Improvement) reorder EMODnet Themes on Reports page to force the 'active' themes to the top of the list	resolved	This is a issue/suggestion that SBH made related to the functionality of the CP	none	16/09/2021
EM-317 (Improvement) 'Seabed Habitats' missing from list of Topics on Newsroom	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	
EM-412 (New Feature) In the layer catalogue on new central portal, indicate which layer groups contain active layers	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	
EM-513 (New Feature) In the layer catalogue, add the ability toggle entire layer groups on or off	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	
EM-514 (Improvement) Return custom feature/pixel information when user clicks on a feature/pixel in the map	resolved	This is a issue/suggestion that SBH made related to the functionality of the CP	none	15/09/2022
EM-515 (New Feature) Ability to filter habitat layers by habitat type or map ID	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	
EM-620 (Improvement) Introduce text wrapping in Catalogue pane	resolved	This is a issue/suggestion that SBH made related to the functionality of the CP. This specific suggestion has not been implemented but instead the layer pane can be extended to allow users to see more of the name	none	
EM-621 (Improvement) manual sorting of layers, rather than alphabetically	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	
EM-622 (Task) correct layer information, metadata and download links for some SH layers	resolved	This is a issue/suggestion that SBH flagged with some of our layers on the central portal viewer. These have now been corrected	none	17/11/2022
EM-623 (Improvement) improve access to metadata and download	pending	This is a issue/suggestion that SBH made related to the functionality of the CP	none	

EM-688 (Improvement) correction to a use case	pending	This is a issue that SBH flagged with one of the use cases which had been reported by a user. CP have corrected so just needs to be reviewed by us	none	
EM-723 (Task) Updated download links needed for EMODnet Seabed Habitats layers on central		Post thematic shut down updates were needed for some central viewer layers to ensure the downloads links were correct	none	25/01/2023
In the project proposal we proposed that we subcontract the 'Mid Atlantic Environmental Research Institute' (MAERI) to carry out data collation, preparation and outreach in the Caribbean. At the time of bidding MAERI was not an operational entity but a partnership between Anguilla Community College (ACC), Department of Natural Resources (Anguilla), South Atlantic Environmental Research Institute (SEARI) and JNCC. However, the intention was to establish MAERI as a standalone entity. Developments were hindered by the pandemic and, as such, MAERI still only exists as a partnership between these organisations. In the bid, we proposed that ACC be the official subcontractor representing MAERI and throughout year 1 of the project we have had many exchanges with both ACC and DNR about how to arrange this subcontract. Over the summer it became apparent that there were going to be too many administrative obstacles to be able to set up a contract with ACC and get any meaningful input from them before the end of the contract and so we realised we needed another option.	pending	CINEA have approved the subcontracting of another MAERI partner, SAERI, who are better set up for contracts such as these - both with the financial mechanisms in place and personnel who can be deployed immediately.	31/10/2022	01/02/2023

<p>Lack of an EMODnet DEM in the Caspian Sea for broad-scale habitat mapping. It is well known that a vital input layer into the broad-scale habitat map (EUSeaMap) is a digital elevation model provided by EMODnet Bathymetry. However, in this phase of the project Seabed Habitats has been asked to produce a broad-scale habitat map for the Caspian Sea, while Bathymetry were not asked to produce a DEM for that sea. As a result, we are forced to use GEBCO, which is of low resolution and quality in the Caspian Sea. We will be able to deliver the deliverable of a broad-scale habitat map for the Caspian Sea, but its quality will not be high.</p>	resolved	<p>raised at the April Steering Committee meeting. It was confirmed with Bathymetry and CINEA that Bathymetry would not be producing a DEM and that ESH should use GEBCO.</p>	none	30/09/2022
<p>We have found a problem with the new version of the EMODnet DTM. There are areas, typically bays and estuaries, with depth values that are too high to a sometimes surprising degree. It appears that in all these areas GEBCO 2022 is used. This problem will lead to classification errors in EUSeaMap, and we cannot publish EUSeaMap with such classification errors (they cover too large an area).</p>	pending	<p>We have reported the problem to EMODnet Bathymetry and discussed it with them. Their view is that the problem should be solved by GEBCO first, and as a result future versions of the EMODnet DTM will de facto be corrected. Therefore, we will have to manually correct the classification errors of EUSeaMap in a post-processing step. This will take some time. However, we do not expect this to delay in the delivery of EUSeaMap.</p>		

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
06/01/2023	Paper	Ragkousis M et al. (2023) <i>Unpublished Mediterranean and Black Sea records of marine alien, cryptogenic, and neonative species.</i>		https://www.researchgate.net/publication/366950850 Unpublished Mediterranean and Black Sea records of marine alien cryptogenic and neonative species	Yes

		BioInvasion s Records 12 (in press)			
20/02/2023	Paper	Bekkby T, Torstensen RRG, Grünfeld LAH, Gundersen H, Fredriksen S, Rinde E, Christie H, Walday M, Andersen GS, Brkljadic MS, Neves L and Hancke K (2023) <i>'Hanging gardens'— comparing fauna communiti es in kelp farms and wild kelp forests.</i>		http://dx.doi.org/10.3389/fmars.2023.1066101	Yes

31/01/2023	Paper	<p>Close HL, Barry PJ, McIlwaine PSO, Marzloff MP, Folliot B, Vasquez M, Laffargue P, Tan SH (2023). <i>Distolambrus maltzami</i> (Miers, 1881) (Brachyura: Parthenopi dae) with observed and modelled distribution in the North-east Atlantic. Journal of the Marine Biological Association</p>		http://dx.doi.org/10.1017/S0025315423000127	Yes
------------	-------	--	--	---	-----

		of the United Kingdom 103, e23, 1–10			
--	--	--	--	--	--

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
None this quarter					

For a compressive 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	Custom postgresql views and geoserver layers (including vocabulary keyword tagging) with python scripting	No new data uploaded during the quarter as per workplan.
What is your opinion on the data coverage within EMODnet for your thematic?		Point data coverage is concentrated in the EEZs of countries where project partners are based. There is likely to be much more data to be found in countries like Spain, Poland, Croatia, etc., which we may be able to target with dedicated subcontracts. We will also to improve the coverage in these areas such as the Caribbean during the uploads in April and September 2023.
B) Usage of data in this quarter	Custom geoserver layers (including vocabulary keyword tagging), with python scripting, geoserver server-side logging and data download logging	Data downloads are much lower this quarter however this is because we only have download data for approximately 20% of the quarter. Post centralisation we have had to change the location of our downloads and the process for extracting download information. This means we do not have data for the whole period. The process is now in place and results next quarter should be more representative. The WMS requests are much higher and the map visualisations much lower, this is also due to centralisation as the map visualisations statistic only represents the numbers from the thematic portal viewer which was decommissioned in January. The central portal views are included in the overall WMS figures. This will be rectified in the next quarter. The WFS requests are

		slightly increased this may be due to increased user numbers post centralisation or due to the hackathon event.
2. Current status and coverage of total number of data products A) Volume and coverage of available data products	Custom postgresql views and geoserver layers (including vocabulary keyword tagging) with python scripting	Only a single new dataset from EMODnet Ingestion has been added this quarter as per the workplan.
B) Usage of data products in this quarter	Custom geoserver layers (including vocabulary keyword tagging), with python scripting, geoserver server-side logging and and data download logging	Data downloads are in general much lower this quarter however this is because we only have download data for approximately 20% of the quarter. Post centralisation we have had to change the location of our downloads and the process for extracting download information. This means we do not have data for the whole period, the process is now in place and results next quarter should be more representative. The WMS requests are much higher and the map visualisations much lower this is also due to centralisation as the map visualisations statistic only represents the numbers from the thematic portal viewer which was decommissioned in January. The central portal views are included in the overall WMS figures. This will be rectified in the next quarter. The WFS requests are slightly increased this may be due to increased user numbers post centralisation or possibly due to the hackathon event
3. Internal and external organisations supplying/approached to supply data and data products within this quarter	Tracking tables in sharepoint.	12 data products acquired in this quarter from 9 organisations
5.1 Daily number of page views of EMODnet Thematic entry page	Europa Analytics	Fairly regular pattern, usually over 35 views a day on week days but peaking at over 100 views a day

5.2 Quarterly total number of visitors, page views, unique page views and percentage of returning visitors	Europa Analytics	Good number of users to the page. No trend information available yet
--	------------------	--

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

5. Annex: Other documentation attached

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