



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n°7 – Human Activities

EASME/EMFF/2019/1.3.1.9/Lot 7/SI2.835999

Start date of the project: 03/03/2021 (24 months)

Centralisation Phase

Interim Progress Report (1)

Reporting Period: 03/03/2021 – 02/03/2022



Contents

1. Introduction.....	3
2. Update on the Tasks.....	5
3. Work Package updates.....	9
4. Identified issues: status and actions taken.....	10
5. Allocation of project resources	12
6. User feedback.....	13
7. Meetings/events held/attended & planned.....	22
8. Communication assets	25
9. Monitoring indicators.....	27
10. Recommendations for follow-up actions by the EU	29
11. Annex: Other documentation attached.....	30

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. Introduction

The contract for the current phase of EMODnet Human Activities was signed in March 2021 and will last until March 2023. The consortium that was awarded the contract is the same that developed and managed the portal in the previous phases:

- Cogea (lead company), Italy
- AND International, France
- AZTI Tecnalia, Spain
- CETMAR, Spain
- Eurofish International Organisation, Denmark
- Lovell Johns, UK

EMODnet Human Activities has been a member of the EMODnet family since September 2013. Since it was not included in the first EMODnet phase from 2009 to 2012, in the previous EMODnet phases (2013-2016 and 2017-2021) its main objective was to quickly build a base of data, so as to catch up with the other portals.

With the current phase of EMODnet, the focus is on maintaining and enhancing services where marine data and data products on the spatial extent and intensity of human activities in the ocean are made interoperable and freely available. In addition, one of the core objectives of the current phase is the centralisation process.

According to the contract, EMODnet Human Activities is mandated to build the following data themes:

- Aggregate extraction
- Aquaculture (including freshwater)
- Cultural heritage
- Desalination plants
- Dredging (e.g. navigational)
- Fisheries effort
- Fisheries zones
- Military zones
- Oil and gas exploration and extraction
- Ports
- Ocean energy facilities
- Pipelines and cables
- Protected areas
- Waste disposal
- Spatial planning zones
- Wind farms
- Shipping density

Compared with the previous phase, there are some new datasets, such as desalination plants, fisheries effort and military zones, though fisheries effort and military zones had been partially developed in the previous

EMODnet phase on a voluntary basis. Further, even though not requested by the contract, the Human Activities team have also made available a number of additional datasets, such as:

- Algae production facilities (including spirulina)
- State of bathing water
- Fish catches
- Fishing intensity
- Lighthouses
- Monthly first sales of fish
- MSFD Reporting Units
- Nuclear power plants
- Oil and gas licences
- Urban wastewater treatment

Vessel density maps were made available in the previous EMODnet phase. They quickly became EMODnet Human Activities' most downloaded data set. 3 years after publishing the vessel density maps, the interest in the data product does not seem to be fading away. In fact, the number of downloads has increased compared to the previous year.

The general objective of EMODnet Human Activities is to become the entry point for maritime data on the spatial extent and intensity of human activity in the ocean. For this reason, the project team paid special attention to collating accurate data from official sources, as well as to making user experience as friendly as possible. With a view to increasing EMODnet visibility, a blog was launched in the previous phases of EMODnet to increase awareness on the work of the Human Activities team and on how its data could be used. At the moment, the blog is not being updated frequently, as the current portal is being phased out. However, it is believed that, once the centralisation process is completed, it may be useful to start publishing content again, as in the past that made it possible to cater to a wider user base.

2. Update on the Tasks

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

New data sets were made available:

- Desalination plants, sourced from DesalData, a commercial provider
- Fishing intensity was expanded, so as to cover the Baltic Sea and the Atlantic Ocean, whereas it used to cover only the North Sea before
- The cable data theme was enriched with power cables – sourced from SHOM (FR), Rijkswaterstaat (NL) and NVE (NO) – that were not previously available

All of the other data sets received their yearly update. For the sake of brevity, only the following is highlighted:

- MSP: 2021 marked the deadline for EU Member States to adopt their spatial plans. While not all of them did so, a certain number of plans is now available on EMODnet Human Activities, namely: Belgium, Denmark, Finland (including the Åland Islands), Latvia and Poland. At the time of writing, work is being carried out to ingest Germany's, Slovenia's and Sweden's spatial plans. The MSP data set is particularly interesting, because EMODnet Human Activities has potential to fill a gap in the MSP Directive, which does not deal with how plans should be transmitted to the Commission. After developing a common data model for MSP, some Member States submitted their plan via the EMODnet Data Ingestion portal and eventually to EMODnet Human Activities.
- Cables: coverage increased considerably by adding SHOM as a data source. Further, power cables were also added to the database, thus complementing telecommunication cables. Coverage is still limited (France, Netherlands and Norway), but there is room for improvement.
- Wrecks: once again coverage was improved by adding SHOM as a data source.
- Aquaculture: slow but constant progress is being made. It may be worth noting that, after years of negotiation, it was finally possible to ingest data on shellfish aquaculture in Spain. Slovenia was also added, through data received via EMODnet Data Ingestion. Contacts are ongoing with Finland, Sweden, Romania, Croatia and Slovakia with an aim to further improve coverage.

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

- Both vessel density and route density maps received regular updates. Both remain EMODnet Human Activities' most downloaded data sets.
- A new contract was signed with the AIS data provider with an option to buy data until 2025.

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

- The server was migrated from the UK to Germany. All web services were also migrated, using the latest version of GeoServer.
- GeoNetwork was installed and metadata were imported. GeoNetwork available under SSL (<https://ows.emodnet-humanactivities.eu/>)
- Cross origin resource sharing for OGC webservice was enabled (requested by EMODnet Seabed Habitats)

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

- Migration almost completed for EMODnet Human Activities, with just a few pending issues to be fixed.

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

- As the current portal has not yet been phased out, no new content was created for the Central Portal, apart from that requested by the Secretariat.

Task 6: Ensure the involvement of Regional Sea Conventions

Black Sea Commission (BSC): a questionnaire was sent at the beginning of March, and feedback was received at the end of March. The BSC is using EMODnet Human Activities' data sets (algae production, dredging, fishing effort, fish sales, port traffic, aquaculture, urban wastewater treatment, shipping density) to prepare publications such as the Black Sea State of Environment Report, the Black Sea Strategic Action Plan Implementation Report (SAPIR), and the Implementation Report for Regional Action Plan on Marine Litter management in the Black Sea. Overall, they judge EMODnet's data sets as timely and reliable. In terms of improvements, the BSC reported that the data sets could be harmonised with their annual reporting obligations, though the official decision on how to do so is pending.

UNEP-MAP (Barcelona Convention): A meeting was originally scheduled in March, but it was then postponed by the Bureau of the Barcelona Convention. It then took place on 9 April 2021. The Human Activities Portal is not currently used by the Barcelona Convention but it might become useful in the future. The Secretariat is currently working on gathering data related to the eleven ecological objectives of the Marine Strategy Framework Directive. In the future stages, they consider including information on pressures from human activities. UNEP-MAP is not using EMODnet Human Activities currently, as they mostly rely on data from EMODnet Chemistry, Biology and Seabed Habitats for their reporting. However, UNEP-MAP is currently working on gathering data related to the eleven ecological objectives of the Marine Strategy Framework Directive. Therefore, they believe that it might be interesting to integrate information on pressures from human activities in the future. EMODnet Human Activities' data sets will then be a relevant source. In order to centralise all the data gathered in the context of the implementation of the Marine Strategy Framework Directive, the Barcelona Convention, particularly the INFO/RAC, has developed a system called [IMAP](#) – data will be available as GIS layers in the future, but this is not the case at present. It was suggested to liaise with the INFO/RAC Director to discuss potential interaction and collaboration between IMAP and EMODnet.

Helcom and OSPAR: meetings took place in April 2021. With these two organisations, there is a long history of cooperation. Both are at the same time data sources and data providers to EMODnet Human Activities. Notably, OSPAR uses EMODnet HA's data sets on aquaculture, urban wastewater treatment plans, aggregate extraction, cables, vessel density, etc.; Helcom uses data sets on wind farms, cables, ports, fishing intensity, aggregate extraction. EMODnet's data sets are used either to fill gaps or to cross-check the data collected under the organisations' remit. Further, Helcom played a crucial role in supporting the design and development of EMODnet's data model on MSP. The coordination meetings with these RSCs are mainly aimed at providing quick updates on what is new, as cooperation is now mutual and well-established.

The purpose of these meeting is to get feedback on how EMODnet Human Activities can be improved and how synergies can be established. EMODnet Human Activities has excellent working relationship and a long history of cooperation with both Helcom and OSPAR. It seems to be less relevant to UNEP-MAP and the Black Sea Commission, though for the latter there were plans to improve cooperation – but this was long before Russian invasion of Ukraine.

During a steering committee meeting, it was strongly recommended that coordination with RSCs be pursued centrally, and not individually by the thematic groups. Otherwise, new meetings will take place in the second year of the project.

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

Further to the work carried out on INSPIRE in the past, we have been working on the design of a single INSPIRE-compliant data model for EMODnet human activities data, based on the recommendations from the report last year. As INSPIRE data models cannot fully fit EMODnet Human Activities' data set, the idea is to take as much as possible from the existing INSPIRE land use model, and adapt it to create INSPIRE-compliant data models that can be used on EMODnet Human Activities. The work has been informed, amongst other things, by the experience with the recently-released MSP data sets, which was also an adaptation from INSPIRE's land use model. Guidelines have been written and the plan is to make all data set available both with the EMODnet and the INSPIRE data model. A pilot exercise was developed by AZTI. It envisages creating new data models loosely based on INSPIRE's land use data model, as done by the [MarSP project](#).

In addition, the EMODnet Human Activities team took active part in the Technical Expert Group on data for MSP. The process culminated in the publication of an EMODnet data model for MSP, which is fully INSPIRE-compliant, and fully compatible with similar exercises carried out at regional level by Helcom and by the MarSP project.

There is considerable room for further improving cooperation with Member States and with the EU MSP platform to support planning authorities in their implementation of the MSP Directive. The EMODnet HA team confirmed to DG MARE and to the EU MSP platform full availability to assist Member States in the preparation of their MSP data sets. A meeting with the Italian authorities took place in October 2021; as a result, when Italy's MSP is adopted, it will be compliant with the EMODnet data model. Similar meetings can be held with other Member States. A meeting will take place internally in DG MARE in June to discuss the different options at stake when it comes to EMODnet supporting the MSP process.

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

Nothing to report.

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

The portal is being maintained until centralisation is completed.

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
e.g. M1: xxx	WP1	Dd/mm/yyyy	Delivered	Dd/mm/yyyy	...
e.g. D1.1: xxx	WP1	Dd/mm/yyyy	Delayed		...

N.B.: EMODnet Human Activities' workplan is not structured with milestones, as the project is a continuous improvement process.

3. Work Package updates

As per the Technical Proposal submitted with the tender, there are no Work Packages in EMODnet Human Activities, other than the project tasks reported in the Tender Specifications.

4. 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
EM-79 Human Activities to report on status or plans to support INSPIRE Compliant CSW	Solved	Geonetwork installed (will be made live in October)		September 2021
EM-86 Web Services MetadataUrl and DataUrl fields	Pending	To evaluate again after we have made the web services live on the new server. Once this is done we can look at any further work to make compliant		
EM-41 - TWG4 - Action point 7: Implement support of time dimension in EMODnet Human Activities Geoserver (WMS-Time, WCS-Time)	Pending	Still in progress. Several approaches are being looked at. Best candidate: making available raster files as NetCDF instead of geotiffs		
EM-345- Collect fields/forms used on Human Activities Thematic Portal	Pending	Will be fixed in October		
EM-337 Collect names of Portal editors	Pending	Will be fixed in October		
EMODnet Catalogue Tags	Pending	Provide list of tags to include in the catalogue		
Review of the new CP map viewer	Pending	Initial review carried out. Only a final review is left. No major issues are expected		
Human Activities to add links to WMS and WFS or WCS in the metadata documents	Pending	WMS, WFS and download links have been added for all the Human Activities datasets. Vessel and Route density datasets are pending the update to NetCDF source		
Human Activities to report on number and volume of downloaded data and data products	Resolved	Numbers provided		
Inaccurate GetLegendGraphic returned for Human Activities EEZ layer	Resolved	When the spacing of the hatching style is small, the legend seems not to show correctly. We have increased		

		the width of the hatch style and it displays OK now.		
Human Activities WMTS broken: GeoWebCache out of synch	Pending	GetCapabilities is now working correctly. There remains an issue with route density layers		
Human Activities to report on number and volume of downloaded data and data products by 29th of October 2021	Resolved			27/10/2021
Review of the Central Portal Map Viewer	Pending	Review to be completed		

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

5. Allocation of project resources

Information on the allocation of project resources	
Categories	Resource usage ¹ (%)
Making data and metadata interoperable and available	40%
Preparing data products	15%
Preparing web-pages, viewing or search facilities	5.5%
Managing user feedback	2%
Project management	5%
Outreach and communication activities	3%
Others	29.5%

¹ Provide the workings of your calculations, *i.e.* percentage allocation of the total amount awarded.

6. User feedback

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
03/03/21	Individual	Technical: feature to download data in tabular format not working with vessel density	E-mail	Same day	Solved	Explained it can't work with vessel density	
11/03/21	Individual	Data: user found inconsistencies in vessel density data	E-mail	One week	Solved	After careful research, it emerged that the user was importing the data in the wrong way.	
16/03/21	Individual	Data: user asked about the source of waste disposal data for Cyprus	E-mail	Same day	Solved	Explained.	
31/03/21	Individual	Data: user asked why there are no African ports in the port data set	E-mail	Same day	Solved	Explained that the data is sourced from Eurostat, which doesn't have a mandate to collect data on African countries.	
01/04/21	Individual	Data: user asked if a data set on EEZs was available	E-mail	Same day	Resolved	Explained where to get it	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/ pending, explain reason why and expected timeline
01/04/21	Individual	Data: user asked how to download the wrecks data set	E-mail	Same day	Resolved	Explained that the data source does not make data available for download	
07/04/21	Individual	Technical: user asked questions on the method to calculate vessel density maps	E-mail	Same day	Resolved	Explained	
21/04/21	ICF	Data: questions on underwater munitions for an EC study	E-mail	Same day	Resolved	Answered the question. A conference call took place.	
23/04/21	Individual	Technical: user couldn't add WMS for density maps	E-mail	Same day	Resolved	Explained how to do it	
23/04/21	Individual	Technical: user wanted to know how to single out fishing vessels in density maps	E-mail	Same day	Resolved	Explained how to do it	
29/04/21	Individual	Technical: user asked what vessels are included under 'other' in route density maps (question received via EMODnet Secretariat)	E-mail	Same day	Resolved	Explained	
04/05/21	Individual	Technical: user had issues with WMS for wind farms	E-mail	Same day	Resolved	Explained how to fix it	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/ pending, explain reason why and expected timeline
10/05/21	Individual	User needed access to raw AIS data	E-mail	Same day	Resolved	Explained this is not possible	
11/05/21	Individual	Technical: user said download was very slow	E-mail	Same day	Resolved	The problem was on the user side. A file was sent via email.	
12/05/21	Individual	User needed to know catches by type of fishing vessel (question received via EMODnet Secretariat)	E-mail	Same day	Resolved	Explained this is not possible	
13/05/21	Individual	Technical: user needed vessel density around Madeira	E-mail	Same day	Resolved	Explained how to get it	
27/05/21	Individual	Technical: user asked how to download the submerged archaeology data set	E-mail	Same day	Resolved	Explained this is not possible because the data provider only offers a WMS	
01/06/21	Individual	Technical: user thought there were missing farms in the Baltic Sea	E-mail	Same day	Resolved	User didn't realize there are two wind farms data sets, one with polygons and one with points	
17/06/21	Individual	Technical: user asked how to separate the above water installations from the	E-mail	Same day	Resolved	Explained how to do it	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
		shapefile "Offshore Installations"					
22/06/21	Individual	Technical: user asked how to get vessel density rasters available in a greyscale though WMS	E-mail	Same day	Resolved	Explained that this is not possible as WMS essentially returns an image	
24/06/21	Individual	Technical: user asked where to get IMO traffic schemes	E-mail	Same day	Resolved	Explained they're not available on EMODnet HA (not in the contract). The information needs to be sourced country by country	
08/07/21	Undisclosed	User needed to know how to open vessel density maps in QGIS	E-mail	Same day	Solved	Explained how to do it	
20/08/21	Undisclosed	User had troubles converting vessel density grid to epsg:4326	E-mail	Same day	Solved	Explained how to do it	
31/08/21	Undisclosed	User enquired whether offshore wind licences were missing from our offshore wind data set	E-mail	Same day	Solved	Explained that licences are not included in the offshore wind data set. These are being made available in the MSP data set, instead	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/ pending, explain reason why and expected timeline
02/09/21	Undisclosed	User asked to obtain vessel density maps prior to 2017	E-mail	Same day	Pending	Issue can't be solved. There are no plans to release vessel density maps before 2017	
16/09/21	Undisclosed	User asked whether yearly density maps report number of hours per year or month	E-mail	Same day	Solved	Explained that yearly density maps report average monthly density values	
09/10/2021	Individual	Info: user asked whether vessel density maps would be updated to 2021	E-mail	Same day	Resolved	Answered positively	
12/10/2021	Individual	Technical: users asked to obtain the routes generated to make the density maps	E-mail	Same day	Resolved	Explained this is not possible as the data are property of a commercial provider	
13/10/2021	Individual	Technical: user asked for maritime boundaries data in GeoJSON format	E-mail	Same day	Resolved	Convert the data set from shp to GeoJSON	
14/10/2021	Individual	Technical: user asked why he couldn't download submerged archaeology data	E-mail	Same day	Resolved	Explained that the data provider only agreed to make data available as WMS	
14/10/2021	Individual	User asked if he could use a screenshot in a publication	E-mail	Same day	Resolved	Answered positively and shared a link to the terms of use	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
29/10/2021	Individual	Technical: user needed historical AIS data	E-mail	Same day	Resolved	Explained these are not available	
01/11/2021	Individual	Technical: user couldn't find an extraction area list on EMODnet on the primary source's website	E-mail	One day	Resolved	Explained where to find it	
02/11/2021	OSPAR	User asked clarification to incorporate wastewater data into their portal	Via EMODnet Secretariat	Same day	Resolved	Explained	
03/11/2021	Individual	Technical: user asked why he couldn't download submerged archaeology data	E-mail	Same day	Resolved	Explained that the data provider only agreed to make data available as WMS	
05/11/2021	Individual	Technical: user needed to import a gdb into QGIS	E-mail	Same day	Resolved	Explained how to do it	
16/11/2021	Individual	Technical: user asked to be given raw AIS data	E-mail	Same day	Resolved	Explained that the raw data is property of a commercial provider	
03/12/2021	Individual	Technical: user asked how to download fishing vessel density maps	E-mail	Same day	Resolved	Explained	
03/12/2021	Individual	Technical: user noticed an issue with the protected areas WMS	E-mail	Same day	Resolved	Fixed	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/ pending, explain reason why and expected timeline
03/01/22	Individual	Copyright: user wanted to include an image from the map viewer into this work	E-mail	Same day	Resolved	Explained how to acknowledge EMODnet	
04/01/22	Individual	Copyright: user wanted to include an image from the map viewer into this work	E-mail	Same day	Resolved	Explained how to acknowledge EMODnet	
10/01/2022	Individual	Data: user asked how to single out vessel routes originating from Brazil, Colombia and Vietnam	E-mail	Same day	Resolved	Explained this can only be done from raw AIS data, to which users can't be granted access	
12/01/2022	Individual	Copyright: user asked how to cite EMODnet	E-mail	Same day	Resolved	Explained how to acknowledge EMODnet	
12/01/2022	EMODnet Seabed Habitats	Technical: error with WMS	E-mail	Same day	Resolved	Fixed a CORS issue	
20/01/2022	Individual	Technical: user asked how retrieve shapefiles of telecom cables	E-mail	Same day	Resolved	Explained how to do it	
04/02/2022	European Court of Auditors	Data: user asked whether: (i) the MSP available on EMODnet	E-mail	Same day	Resolved	Explained that (i) the MSPs are indeed official; (ii) data are	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
		are official; (ii) more countries would be made available and (iii) when				made available as soon as MSs adopt their plans; (iii) for the same reason it's not possible to provide a tentative release plan	
14/02/2022	Individual	Data: User informed us that some algae producing facilities were not included in our data set	E-mail	Same day	Resolved	2 out of the 3 facilities actually turned out to be included. For the remaining one, we put the users in touch with the JRC, who are in charge of the data set	
14/02/2022	Individual	Technical: user lamented an error with WMS	E-mail	Same day	Resolved	After a quick check, no error was found.	
17/02/2022	Individual	Data: users asked to be given access to raw AIS data	E-mail	Same day	Resolved	Explained this is not allowed by our licence terms with the data provider	
17/02/2022	Individual	Citation and technical: user asked how to cite	E-mail	Same day	Resolved	Redirected user to "Terms of Use" for	

Overview of user feedback and/or requests received in this project phase							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query (Resolved/ Pending)	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
		EMODnet and how to get WMS and WFS links to the wind farm data sets				citation and to metadata for WMS and WFS links	

7. Meetings/events held/attended & planned

[List organisational meetings/events held/participated (incl. presentations, lectures, trainings, demonstrations, workshops, etc.) since the start of the project phase and planned in the future. Please add a short description on the meeting as well as the nature and volume of the audience.

When listing a meeting, please indicate whether it was an internal (i.e. within your partnership/lot) or external meeting (i.e. outside your partnership/lot).]

A. Meetings/events organised and attended in this project phase					
Date	Location	Type event (internal or external meeting; training/workshop)	Was a presentation given? (yes/no + short description)	Meeting attended (A) / organised (O)	Short description and main results (# participants, agreements made, etc.)
24-25/04/21	Remote meeting	Workshop	No	A	Workshop on Marine Data for Aquaculture
14/04/21	Remote meeting	Call conference	No	O	Meeting with the Secretariat on use cases
20/05/21	Remote meeting	Workshop	Yes	A	EMD workshop on Ocean Observation and Marine Data for the Blue Economy
14/06/21	Remote meeting	EMODnet Open Conference	No	A	Presentation of EMODnet HA's main achievements
17/06/21	Remote meeting	EMODnet HA partners meeting	No	O	Amongst other things, discussion on Human Pressure Index, compliance with INSPIRE, how to improve coverage.
02/07/21	Remote meeting	Internal	no	A	Meeting with EMODnet Physics to discuss a framework to integrate EMODnet HA data on vessel density with EMODnet Physics data on noise
16/07/21	Remote meeting	Internal	no	A	Meeting with DG MARE to understand to what extent EMODnet HA may support the MSFD process (oil spills)
20/09/21	Remote meeting	External	no	A	Meeting with the contractor of CINEA/EMFF/2020/3.1.16/Lot2/SI2.85094 who's

					investigating loss of AIS messages due to satellite collisions.
25/10/2021	Online	External	no	A	Support to Italian MSP and 'ingestion' to the EMODnet Portal. They agreed on the adoption of the EMODnet HA MSP data model for the Italian MSP plan
23/11/2021	Online	External	Yes, short description of the work developed in the sub-group of the socioeconomic impact of MSP	A	Technical Expert Group of Marine Spatial Planning at European level. Sub-groups about metadata, MSFD and socio-economic (among others) explained their advances.
18/10/2021	Remote	Internal workshop	yes	O	First session of Workshop for EMODnet Human Activities' single model proposal: Participants EMODnet's human activities partners. Objective: Presentation and practical testing of the EHA single model for human activities layers in EMODnet portal.
19/11/2021	Remote	Internal Workshop	yes	O	Second session on of Workshop for EMODnet Human Activities' single model proposal: Participants EMODnet Human Activities partners. Objective: Follow on on discussions and practical testing of the EHA single model for human activities layers in EMODnet portal.
20/01/2022	Online	MED OSMoSIS workshop	Yes. Presentation of EMODnet Human Activities and benefits of FAIR data	A	
SUM				O	Total # of meetings organised = 4
SUM				A	Total # of meetings attended = 9

B. Meetings/events planned in the future				
Date	Location	Type event (meeting, training (workshop), etc.)	Meeting to be attended (A) / organised (O)	Short description and main expected outcomes
6-7/7/2022	Las Palmas of Gran Canaria (Spain)	Workshop and Internacional Conference	A	Discussion on the TEG MSP data. The expected outcomes focus on how to present the results of this group in September.
To be defined	Online	EMODnet - Brazil/Geo ANP dialogue	A	Discussion on how to cooperate with a Brazilian project similar to EMODnet

8. Communication assets

A. Communication products developed				
Date	Communication material	Short description (of the material, title, ...) of the asset	Main results	Name of event at which material was disseminated (if applicable)
16/03/22	News digest	Contributed three news items to EMODnet's News Digest	Announced three new data sets: desalination, fishing intensity in the Baltic Sea and in the Atlantic Ocean, and Latvia's MSP	

B. Planned communication products			
Date	Communication material	Short description (of the material, title, ...) and/or link to the asset	Main results expected

A. (Co-)Authored peer-reviewed publications in this project phase					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No
August 2021	Paper	<i>Spatial overlap between human activities and seabed habitats in European Seas: Insights into EMODnet's data for management purposes</i> in Marine Policy Volume 130, August 2021, 104551		https://doi.org/10.1016/j.marpol.2021.104551	No

B. Other/non-peer reviewed types of publications (co-)authored in this project phase					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No
17/09/21	Paper	<i>Proposal for making harmonized MSP plan data available across Europe</i>	978-92-95225-12-1	10.2926/029516	Yes

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

9. Monitoring indicators

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	Matomo	Volume usually increases over time, as new data sets and new data sources are added on a regular basis
What is your opinion on the data coverage within EMODnet for your thematic?		There is great variability across data sets. For most data sets, it can be reasonable to assume that either we have 100% of coverage, or we close to 100%. This is the case, for example, when there is a reporting obligation. For some other data sets, such as pipelines and cables, the situation is still unsatisfactory, with some Member States with full coverage, and some others not covered at all.
B) Usage of data since the start of the project phase		Usage's also increased since last yearly report. Interestingly, web services increase more than downloads
2. Current status and coverage of total number of data products A) Volume and coverage of available data products		Volume increases by definition, as the maps are regularly updated.
B) Usage of data products since the start of the project phase		Usage's also increased. Both vessel density and route density maps are among the most downloaded data sets; an increase by 74% from one year to another is thus particularly remarkable
3. Internal and external organisations supplying/approached to supply data and data products since start of the project phase		New sources are added every year. Apart from that, there's nothing particularly noteworthy

4. Online 'Web' interfaces to access or view data		Nothing to report
6. Statistics on information volunteered through download forms		Breakdown by user category tends to be pretty stable, with industry users at around 30%
7. Published use cases		Having stopped collecting users' email addresses, it's become extremely difficult to find new use cases
9. Technical monitoring		Nothing to report
10. Visibility & Analytics for web pages		Visibility on a pretty stable trend, with some pages going up and some others going down. Trend worsens in the 1st quarter of 2022, but on average there are no big differences.
11. Visibility & Analytics for web sections		Visibility for web sections going down, but it is difficult to understand why
12. Average visit duration for web pages		Average visit duration more or less stable. Average visit duration for documents on an upward trend. This is probably related to the method for vessel density maps, which has been receiving an increasing number of citations.

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

10. Recommendations for follow-up actions by the EU

- Maritime Spatial Planning: offer to organise training session in the Member States who have not yet adopted their plan. It would be a good occasion to make sure that the plan is released in a format that is already compliant with EMODnet Human Activities. It might also be useful to do so in those Member States which are in the process of reviewing their plan. The EMODnet Human Activities team are fully available to participate in these training sessions.
- Vessel density: several users often ask for historical vessel density map. Consider extending the time series. To be noted that this might have budget implications, so pros and cons should be carefully evaluated.
- Reporting obligations: the situation with several data sets (aquaculture, cables, pipelines) has been stable for quite some years, with only little progress being made every once in a while. With no reporting obligations, it is not likely to change any time soon. Introducing reporting obligations would improve data availability considerably.
- Coordination with Regional Sea Conventions as well as with broader EU and non-EU initiatives for open data: it is strongly recommended that these tasks are carried out centrally, rather than by each thematic group individually. Doing it individually would entail duplication of effort and more burden for our counterparts.

11. Annex: Other documentation attached

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