



# EMODnet



European Marine  
Observation and  
Data Network

## EMODnet Thematic Lot n° 4 - Chemistry

**EASME/EMFF/2018/1.3.1.8**

**Start date of the project: 03/10/2020 - (24 months)**

**EMODnet Phase IV - Quarterly Progress Report (3rd)**

**Reporting Period: 01/04/2020 - 30/06/2020**



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## Disclaimer

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# 1. Highlights in this quarter

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*[Please make sure that progress in each of the tasks specified in Section 1.4.1 of the Tender Specifications is listed. For those tasks not experiencing progress, please give an explanation. Max 2 pages]*

This report covers the second quarter of 2020. During this period, EMODnet Chemistry coordinators with its partnership actively participated to a series of videoconference meetings with DG MARE and EMODnet Secretariat, with DG ENV joining the MSFD Expert Group on Contaminants and the MSFD Technical Group on Marine Litter, showing progress of activities as well as brainstorming about new perspective of collaboration. Following the interim harvesting dated January 2020 on eutrophication, the aggregated and validated collections on eutrophication were **shared with EEA** in June 2020 and the contaminants are ready to be delivered. The dialogue with **CMEMS** continued aimed at the generation of the joint EMODnet – CMEMS MSFD portfolio, starting with products relevant for D5-eutrophication in the Baltic Sea. The draft will be shared with EEA to get feedback and evaluate the way forward. EMODnet Chemistry, acting as European data portal for Marine Litter, collected beach litter data for 2017-2018 as requested through **TG ML**, gathering data input from MS.

In the following the highlights for the period April - June 2020 are outlined for each of the tasks specified in Section 1.4.1 of the Tender Specifications:

## **Task 1: Develop a common method of access to data held in repositories:**

- Raw chemistry data sets for eutrophication, ocean acidity, contaminants and marine macro litter are gathered from many data sources and are findable, accessible, interoperable and reusable thanks to the adoption by EMODnet Chemistry of the SeaDataNet Common Data Index (CDI) data discovery and access service. While marine litter data for beach litter and seafloor litter, also coming from different sources, are managed in two central databases, involving a lot of efforts for validation, classification, and metadata documenting. Due to the high heterogeneity of the source data, dedicated data formats have been developed and deployed, able to hold all needed metadata and data elements. The data gathering activities are a continuous process, stimulated in the reporting period by a series of meetings organised at regional scale with data providers. A new data management proposal for handling seafloor litter images and videos has been produced and is under revision.

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

- Aggregated data collections are produced for eutrophication, contaminants and marine litter. 6-year analysis are produced for selected eutrophication parameters, interpolated on regular grid, while dedicated maps are produced for contaminants and marine litter at measurement points. The Map viewer shows all products, also interrogated in the catalogue service. For eutrophication, also maps are included displaying the distribution of data locations, and giving information on the number of observations related to a single parameter (e.g. water body pH map). By clicking on the dots representing the sampling stations, access is given to time series or vertical profiles. In the reporting period, efforts were undertaken by the Regional Coordinators to satisfy EEA request with the latest eutrophication collection, while undertaking processing of contaminants enriched with additional metadata. All data products were mapped to BODC vocabularies for offering a better search filters in data products catalogue: Matrix Categories - L04 and Themes - P36.

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

- Machine-to-machine connections to data and data products are upgraded following the [Technical Guidance for the implementation of INSPIRE View Services](#). EMODnet Chemistry products catalogue provides the INSPIRE metadata fields requested for enabling machine-to-machine connections, by including information on OGS services and data URL. The [INSPIRE validator tool](#) is used for validating the service. All MetadataURL point to standard XML and to a human readable text.

**Task 4: Develop a web portal allowing users to find, visualise and download data:**

- The EMODnet Chemistry portal has been reviewed and restyled following the observations received from EMODnet Secretariat. Now, the section ABOUT is completely updated and rewritten. The section DATA ACCESS provides quick and easy access to the harmonized and validated data collections, while measurement data, as delivered by the originators, are available through a Data Discovery and Access service. The section DATA PRODUCTS, enriched with clear descriptions of all available results, allows the user to browse, visualise and download data products. News and events are continuously updated (four additions for the period) and distributed with all promotion materials.

**Task 5: Ensure the involvement of regional sea conventions:**

- Dialogue with four Regional Sea Conventions has been maintained through the participation in the MSFD Technical Groups (on Contaminants and Marine Litter), where a regular dialogue is established, and through the MSFD Board of experts, consulted prior to the release of new products.

**Task 6: Facilitate interoperability with data distributed by non-EU organisations:**

- EMODnet Chemistry started contacts to set data sharing with WOD, beginning with oxygen data. As EMODnet Chemistry builds upon the SeaDataNet pan-European infrastructure, it has strategic links and long-standing communication with non-EU countries and in particular with Australia, Canada, and USA. EMODnet Chemistry vocabularies and metadata directories are also adopted by non-EU organisation, enabling interoperability and data sharing.

**Task 7: Install a process to monitor performance and deal with user feedback:**

- Procedures are up and running. COVID-19 emergency did not affected the functionality. OGS has developed a new web service that collects download metrics for the indicators. OGS has also implemented its usage in the DOI landing page. It will be also implemented by partners during Q3 for map viewer and data products catalogue.

**Task 8: Operate a help desk offering support to users:**

- The helpdesk is kept operational in the reporting period. COVID-19 emergency did not affected the functionality. All support requests received via the Help desk are listed in Section 4.

## 2. Identified issues: status and actions taken

[Provide an overview of the issues identified by EASME (Table A), if any, during the reporting period, 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 issues and challenges identified by yourself, if any.]

<b>A. Priority issues identified and communicated by EASME/ DG MARE/ SECRETARIAT</b>			
Priority issue	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
<b>Make data easier to access, with interfaces, also fit for non-professionals, to visualise data</b>	Pending	Adopt and adapt webODV components for discovery, subsetting by a number of criteria, visualising and exporting the subsets in a number of formats, all in an easy way and fast	7/2020
<b>Improve the user focus of portal (less info, more services)</b>	Resolved	Review and reshuffle the portal, placing the products and their services more centrally as major output from EMODnet Chemistry	5/2020
<b>INSPIRE compliance for metadata fields in EMODnet Chemistry OGC web services</b>	Resolved		

<b>B. Issues / challenges identified by the thematic assembly group itself</b>			
Priority issue / challenge	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
<b>Get correction on the data following the regional data validation process</b>	Pending	Motivate data centers with dedicated meeting at regional scale	9/2020

<b>Get additional metadata to fulfil EEA and CMEMS needs</b>	Pending	Release of updated guidelines with clear instructions	9/2020
<b>Get new recent data in the system</b>	Pending	Motivate data centers with personal contacts (remote meeting and email)	9/2020

### 3. User feedback (Contact Us form, online chat & other communication means)

*[Provide a list of all user feedback received on your portal in chronological order within the reporting period. Indicate the type of the feedback received, a clear description of the query, and the actions undertaken to resolve the issue (e.g. update of metadata, fixing a particular issue with the map viewer). Indicate the status of the query (i.e. has the query been resolved or not yet), and if not provide an explanation why. List any feedback you received on the portal that can be used to build EMODnet use cases. Provide information in the table.]*

Overview of user feedback and/or requests received in this quarter							
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
03/04/20	HCMR	Technical. A question about the data access page.	Chat	1 minute	resolved	explanation	NA
06/04/20	HCMR	Technical. A question about the "Your order" page for the requested data.	Chat	1 minute	resolved	explanation	NA
21/04/20	isprambiente.it	Technical: "I am trying to use the beach litter format validator but an error occurs".	Chat	1 minute	resolved	bug resolved	NA
18/05/20	4coffshore.net	Technical, web services: "if it is possible to obtain ad	Chat	1 minute	resolved	explanation	NA

		WMS for the whole chemical data".					
<b>01/06/20</b>	4coffshore.net	Technical, contaminants maps.	Chat	2 days	resolved	explanation	NA
<b>04/06/20</b>	izvrs.si	Technical, beach litter	Chat	2 minutes	resolved	explanation	NA
<b>05/05/20</b>	EMSA, European Maritime Safety Agency	Marine litter annual or seasonal maps	Email	½ day	resolved	explanation	NA
<b>19/05/20</b>	EMSA	Marine Litter beach and seafloor data	Video call	Few days	resolved	explanation	NA



## 4. Meetings/events held/attended & planned

*[Organisational meetings/events held/participated (incl. presentations, lectures, trainings, demonstrations, workshops, etc.) by the contractant since the last quarterly report and planned in the future. Please add a short description on the meeting as well as the nature and volume of the audience.]*

<b>A. Meetings/events organised and attended</b>				
Date	Location	Type event (internal or external meeting, training (workshop), etc.)	Meeting attended (A) / organised (O)	Short description and main results (# participants, agreements made, etc.)
15/04/20	Remote	Meeting	O	Video-conference with RL to align on Eutrophication data validation
20/05/20	Remote	Meeting	A	EMODnet-CMEMS coordination meeting
22/5/20	Remote	Meeting	A	12th EMODnet Steering Committee Meeting
23-24/5/20	Remote	Meeting	A	7th EMODnet TWG Meeting
30/5/20	Remote	Meeting	A	MSFD EG Contaminants
05/05/20	Remote	Meeting	O	Video-conference with RL to align on Eutrophication data validation
20/05/20	Remote	Meeting	O	Video-conference with RL to align on Eutrophication data collection delivery
04/06/20	Remote	Meeting	O	Video-conference with RL to align on Eutrophication data collection delivery
11-12/6/20	Remote	Meeting	A	MSFD TG ML meeting
15/6/20	Remote	Meeting	O	EMODnet Chemistry regional meeting for the North sea area
16/6/20	Remote	Meeting	O	EMODnet Chemistry regional meeting for the Mediterranean sea area
17/6/20	Remote	Meeting	O	EMODnet Chemistry regional meeting for Baltic and Arctic area

<b>18/6/20</b>	Remote	Meeting	O	EMODnet Chemistry regional meeting for the Atlantic region
<b>19/6/20</b>	Remote	Meeting	O	EMODnet Chemistry regional meeting for the Black sea area
<b>23/6/20</b>	Remote	Meeting	A	EMODnet reporting and assessment meeting
<b>24/6/20</b>	Remote	Meeting	A	Exclusion WFD PS from MSFD open sea assessment
<b>SUM</b>		<b>9</b>	<b>O</b>	<b>Total # of meetings organised =</b>
<b>SUM</b>		<b>7</b>	<b>A</b>	<b>Total # of meetings attended =</b>

### 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
<b>9/7/20</b>	Remote	Meeting	O	Video-conference with RL to align on contaminants data delivery
<b>8/7/20</b>	Remote	Meeting	A	Bilateral meeting organised by EEA to discuss marine Litter data availability for an European marine litter assessment.
<b>22/9/20</b>	Remote	Webinar	A	EMODnet Open Conference
<b>20-21/10/2020</b>	Remote	EATIP-Copernicus Marine-EMODnet workshop on data for aquaculture	A	To explore opportunities and applications for marine environmental data to support aquaculture sector
<b>12-14/4/21</b>	Amsterdam	International Conference on Marine Data and Information Systems	A	Disseminate EMODnet Chemistry results

## 5. Communication and dissemination assets

*[Please list all the relevant communication and dissemination products and assets you have developed during this period (e.g. development of communication materials such as brochures, videos, press releases, newsletters, etc.) and are planning to do. At the bottom of the table, provide a total number for every type of communication product you have developed (e.g. total # of press releases, etc.).]*

<b>A. Communication products</b>				
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results	Name of event at which material was disseminated (if applicable)
<b>5/6/20</b>	On line communication	Regional leaders' meetings on contaminants, ocean acidification and eutrophication ( <a href="https://www.emodnet-chemistry.eu/promotion/news">https://www.emodnet-chemistry.eu/promotion/news</a> )	Keep users and visitors of the Portal up to date with the initiative progress	
<b>15/6/20</b>	On line communication	One week of regional meetings for EMODnet Chemistry ( <a href="https://www.emodnet-chemistry.eu/promotion/news">https://www.emodnet-chemistry.eu/promotion/news</a> )	Raise awareness and spread information	
<b>16/6/20</b>	On line meeting/presentation	EMODnet Chemistry coastal data and products ( <a href="https://www.emodnet-chemistry.eu/promotion/events">https://www.emodnet-chemistry.eu/promotion/events</a> )	Assess collaborations across EMODnet themes and between EMODnet and (CMEMS)	EMODnet and CMEMS coastal meeting technical webinar
<b>17/6/20</b>	On line communication with presentation	EMODnet and CMEMS coastal meeting	Keep users and visitors of the Portal up to date with the initiative progress	
<b>23/06/20</b>	On line thematic class/presentation	Virtual class on plastics litter ( <a href="https://www.emodnet-chemistry.eu/promotion/events">https://www.emodnet-chemistry.eu/promotion/events</a> )	Raise young people awareness and disseminate information	Junior sailing school 2020, Yacht Club Adriatico (Trieste)
<b>24/06/20</b>	On line communication with presentation	Yacht Club Adriatico, 2020: virtual OGS class on plastics litter ( <a href="https://www.emodnet-chemistry.eu/promotion/events">https://www.emodnet-chemistry.eu/promotion/events</a> )	Keep informed users and visitors of the Portal	

<b>B. Planned communication products</b>			
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results expected
To be defined	Poster	Prepare a dedicated poster for Marine Litter gathering, products, and publishing	Promote results
To be defined	Video	Prepare a video of 3 services: adapted WebODV, MapViewer, and Products catalogue as a tutorial what these offer and how these can be operated	Training on services and tools
To be defined	On line communication	Description of the event or activity	Raise awareness and spread information

*[Publications (e.g. peer-reviewed journals, book chapters, conference papers, etc.) that you are aware of using/referring to EMODnet data or data products within the reporting period.]*

<b>List of known publications using EMODnet data or data products</b>				
Date	Type and name of journal, conference, ...	Publication title including DOI (if known)	Author(s)	Organisation(s)

## 6. Monitoring indicators

*[Please refer to the standardised monitoring tool i.e. Matomo to complete the designated excel template on monitoring and progress indicators in annex, and provide a comment or short explanation on numbers and trends in the table below for each indicator when possible/applicable. If monitoring was carried out using tools other than Matomo, please indicate clearly.]*

Comments on the progress indicators in the excel template	
Progress indicator	Comment
1.1 Status/Volume and coverage of all available acquired data A) Volume and coverage of available acquired data	For CDIs, a lot of quality control activities have been ongoing in this quarter by Regional Coordinators validating regional data collections for eutrophication and contaminants and providing feedback to data providers for corrections. Moreover, the ML data records have been validated together with member states as part of TG-ML. These QA activities overall have resulted in temporary de-activations of CDI entries, awaiting replacement by corrected entries, and in some cases permanent de-activation of duplicates. As a result, this quarter shows a slight decrease for several subthemes
B) Usage of data in this quarter (formerly indicator 4)	This quarter marked a considerable increase of number of downloaded CDI data files. For the aggregated datasets, the numbers from previous quarter are NA since they were added to the data products count.
1.2 Status/Total number and the coverage of all built & external data products A) Volume and coverage of available built & acquired data products	No new data products are recorded in this quarter.
B) Usage of data products in this quarter (formerly indicator 4)	There is a big decrease in data usage: download and map views during this quarter. This might be a compensation of the manual release of data collections, which took place during the quarter. Numbers are indeed very low that might reflect a different interest to the COVID-19 crisis .
2. Organisations supplying/approached to supply data and data products within reporting period	For CDIs, a lot of quality control activities have been ongoing in this quarter by Regional Coordinators validating regional data collections for

	eutrophication and contaminants and providing feedback to data providers for corrections. Moreover, the ML data records have been validated together with member states as part of TG-ML. These QA activities overall have resulted in temporary de-activations of CDI entries, awaiting replacement by corrected entries, and in some cases permanent de-activation of duplicates. As a result, this quarter shows a slight decrease for several subthemes
3. Online 'Web' interfaces to access or view data	No change this period to the web interfaces. Major improvements to the web site.
5. Statistics on data volunteered through download forms	For CDIs, number of users is lower than in previous quarter, while the volume of downloaded CDI data sets is higher. Data – CDI service: We see a positive private companies interest: Business and Private company
7. Published use cases	Latest use case is the most viewed one, but in Central Portal it's bypassed (1 view) by: "Use of EMODnet Chemistry data to improve Quality Control guidelines: synergies between different initiatives".
9.1. Technical monitoring	Excellent.
9.2. Portal user-friendliness (Visual Harmonization score)	Highest score possible.
10. Visibility & Analytics for web pages	Big increase for Homepage and big decrease for 'News & Events' page. Could be related to latest content modifications.
11. Visibility & Analytics for web sections	Big increase for Documents web section. Could be related to latest content modifications.
12. Average visit duration for web pages	Big decrease for Products, Help and Search chemicals by region. Could be related to latest content modifications or the effect of COVID-19 crisis.

*The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Matomo. In some cases, numbers from other monitoring systems may also be reported (e.g. Awstats, Google Analytics). Each system uses different technical approaches and therefore has its strengths and shortcomings. Therefore, results are indicative and care should be taken with interpreting absolute numbers or comparing results from different tools. It is often more sensible to consider trends over time collected by the same monitoring tool.*

## 7. Annex: Other documentation attached

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