



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n° 4 – Chemistry

EASME/EMFF/2016/1.3.1.2

Start date of the project: 06/03/2017 - (24 months)

EMODnet Phase III – Quarterly Progress Report (8th)

Reporting Period: 01/01/2019 – 31/03/2019



Contents

1 Highlights during the reporting period	3
2 Challenges encountered during the reporting period	5
3 User Feedback.....	6
4 Meetings held/attended since last report	7
5 Outreach and communication activities	8
6 Comments about the monitoring indicators	10
7 Annex.....	11
8 New monitoring indicators	12

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1 Highlights during the reporting period

Summary of the key achievements and/or events within this reporting period in each of the tasks specified in Section 1.4.1 of the [Tender Specifications](#):

This quarter marks the end of the third phase of EMODnet Chemistry, and capitalised on all planned activities. In particular, the main achievements for the reporting period relates to Task 2, with a close relation to Task 5, Task 3 and Task 4. In fact, we developed and presented the new dedicated maps for contaminants (based on the regional harmonized, aggregated and validated data collections) and we consolidated the new marine litter maps for sea-floor and beach litter (incorporating all comments received from the MSFD Board of experts). Considering the sensitivity of the information linked to pollution (from contaminants and litter), the publication took place only after the acceptance by the MSFD Board of experts, including RSCs, JRC and EEA.

In particular, the highlights for the period January-March 2019 are listed below:

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

- All data providers were active in giving continuous access to their proportion of information through EMODnet Chemistry data infrastructure (numbers of restricted and unrestricted supplied data are listed in Indicator 2), to make data interoperable, findable and accessible. The highest contribution is recorded in the updating of the data and of the correlated metadata, to fulfil comments from the Data Validation Loop.

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

- The new dedicated maps for selected classes of contaminants were presented to the Board of MSFD experts for their evaluation and possibly endorsement. In the process, the list of substances was cross-referenced with the available data in EMODnet Chemistry along the six sea regions, and with the relevant matrix, while using this legislative background.
- Harmonized, aggregated and validated data collection of beach litter and sea-floor litter covering all European sea regions were released.
- The official release of Marine Litter maps for beach litter and sea-floor litter was on 24th March, with publication of news and alerts in the Chemistry portal and in the Central portal.

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

- Machine-to-machine connection to data and data products is provided for the validated, harmonised and aggregated data collections, now including also marine litter besides to contaminants and eutrophication. Communication continued with JRC and EEA for further analysis and harmonisation, which are needed before to set machine-to-machine data access.

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

- The EMODnet Chemistry web portal is continuously updated with new content, extra news and events, media and papers released, project documents and use cases. To note for the reporting

period that the Ocean Browser viewing service was updated with new layers and dedicated news were produced for any updating (with new release).

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 Data 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 data infrastructure was presented and discussed to the IODE Session in Tokyo.

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

- In the reporting period, we further tuned with TRUST-IT and EMODnet Secretariat the Indicators to be reported and improved the process of indicators creators. Unfortunately, the criteria to report actions on the EMODnet Chemistry portal with Matomo showed no actions for part of the reporting period.

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

- The help desk is kept operational, according to the rules set in the Tender Specifications. We receive on average a couple of support questions via the Help desk and a couple via personal e-mail or phone call. These are handled within a few hours.

During this reporting period, the intense interaction with EMODnet Chemistry stakeholders continued for the three crucial use cases related to:

1. The data exchange with EEA. EEA has informed to the Eionet National Reference Centers representatives that data on contaminants and nutrients will no longer be requested via the WISE SoE data call, but collected from EMODnet Chemistry/ICES (Nov 2018). EMODnet Chemistry continued the dialogue and collected feedbacks on the harmonized, aggregated and validated data collections for contaminants in biota provided to EEA.
2. The data support to JRC and TG ML. EMODnet Chemistry continued the dialogue, collected feedbacks on the European beach litter data provided to JRC for the definition of Baselines, and evaluated requirements to further extend the collaboration to new beach litter data collected in 2017 and 2018, to sea-floor litter and micro-litter. Part of future activities are included in the new proposal for EMODnet Chemistry 4.
3. The use of EMODnet Chemistry platform for MSFD data reporting, following Art. 19 (3) requirements and aiming to obtain the compliance with the INSPIRE directive.

As an addition, intense dialogue with CMEMS precluded active chemistry data exchange properly defined through a dedicated Memorandum of Understanding. In this case, the requested input from EMODnet Chemistry is not only related to data provision but also to share expertise on data validation and joint data products.

These use cases, being all very specific requests, took time for their proper advancement, required dedicated effort prolonged over time and set the basis for long-term collaborations. Their fulfilment is crucial to demonstrate the reliability and benefit of EMODnet Chemistry data portal.

2 Challenges encountered during the reporting period

An overview of the main challenges encountered during the reporting period and the measures taken to address them, including those related to technical and data provision issues, is provided in the following table.

Main challenge	Measures taken
Endorsement of data collections provided to EEA and JRC (contaminants plus eutrophication and marine litter)	Open dialogue with EEA (through ICES) and JRC to evaluate requests plus definition of actions for EMODnet Chemistry consortium.
Endorsement of Marine Litter maps by stakeholders	Strengthen communication with TG ML, JRC and MSFD Board of Experts to get feedback, taking into consideration the high sensitivity of the information. Implementation of suggested improvements prior official release, despite the time pressure for marine litter data delivery.
Maintain a long-term perspective with the stakeholders despite the termination of the contract	Keep the link with on-going data infrastructures (SeaDataCloud and EOSC). Participation in the new call for tenders issued by EASME.
Publication of new maps	Keep connection between scientific and technical components.

3 User Feedback

List of any useful feedback received on Chemistry portal, our activities or those of other EMODnet projects/activities. Any suggestions we have received for EMODnet case studies and/or future products/activities/events is also provided in the table.

Date	Organisation	Type of user feedback (e.g. technical, case study, etc.)	Response time
1/2/2019	Private from the Sustainability Institute and Camborne School of Mines, under the University of Exeter	Technical via Helpdesk email	4.5 hours
19/3/2019	Planetek Hellas	Technical via Helpdesk chat	1.5 hours
22/3/2019	University College Cork	Technical via Helpdesk chat	3.5 hours

4 Meetings held/attended since last report

The internal and external meetings held/participated by the contractant (e.g. meeting, conference, training (workshop), etc.) since the last quarterly report are listed. At the bottom of the table, the total number of events organised and events participated is provided.

Table: Meetings organised and attended.

Date	Location	Type event (meeting, training (workshop), etc.)	Attended (A) / Organised (O)	Short description and main results (# participants, agreements made, etc.)
08/01/2019	On-line	Meeting	O	Data products videoconference. *
11/01/2019	On-line	Meeting	O	Fine-tuning of marine litter maps
29-31/01/2019	Madrid	Meeting	O	EMODnet Chemistry final meeting and Steering Committee meeting
30-31/01/2019	Athens	Meeting	A	TG ML Joint Litter Category List meeting organised to review the Master List of marine litter items. EMODnet provided information from the EMODnet Marine Litter database.
14/02/2019	On-line	Meeting	O	Fine-tuning of marine litter maps
14-15/02/2019	Rome	Meeting	A	TG ML Floating Marine Macro Litter workshop organised to evaluate additional data sources. EMODnet provided expertise on marine litter data management.
18-22/02/2019	Tokyo	25 th Session of IOC/IODE	A	Sharing knowledge on EMODnet data standards
18-19/03/2019	Brussels	Conference	A	EMODnet Chemistry responsible data management at pan-European scale presented at Ocean Dialogue 2019
19-21/03/2019	Brest (Remote participation)	INSTAC General Assembly	A	Present the MoU aiming to set cooperation in Metadata & data exchange from EMDChem to CMEMS and vice versa, in the Development of products and Teaming up in relevant projects (e.g. ENVRI-FAIR, SeaDataCloud2)
29/03/2019	Remote	Meeting	O	MSFD Board of experts meeting on contaminants
SUM of O			5	(Total # of meetings organised)
SUM of A			5	(Total # of meetings attended)

5 Outreach and communication activities

All the relevant communication/outreach activities or products we have developed/executed during this period (including presentations, lectures, trainings, demonstrations, workshops, etc., and development of communication materials such as brochures, videos, press releases, newsletters, etc.) are listed in the table below. At the bottom, a total number for every type of communication activity you have developed/executed (e.g. total # of press releases, total # of presentations given, etc.) is provided.

Table: Communication activities.

Date	Communication action/material	Short description (of the material, title, ...) and/or link to the activity	Main results (# participants, # views, # press clippings, etc.)
30/1/2019	Oral presentation	EMODnet Chemistry inputs to MSFD Master List	Contribution to MSFD Joint Litter Category List meeting
7/2/2019	Oral presentation	Presented at HarmonIA International Workshop in the Adriatic Ionian Region: Integration of different maritime activities, Challenges and tools, Split, Croatia	Good collaboration as expressed in a new published use case in Chemistry Portal.
14-15/2/2019	Oral presentation	EMODnet Chemistry, Marine litter data management	DATA FORMAT - UNITS AND REPORTING in MSFD Floating Marine Macro Litter workshop, Rome, Italy
21-22/2/2019	Oral presentation	Presented at the Inception Workshop Of The EMBLAS-Plus Project , Istanbul, Turkey.	Presentation of the synergy with EMODnet objectives and topics and regarding the data on ML, obtained during the field works conducted by TSU and R/C GAMMA independently and within EMBLAS 2, delivered EMODnet and, further on, assimilated for creation of the first European maps on Marine litter. Continuation of these activities (e.g. interchange of data and creation of common Database on ML of the Black Sea) has been considered reasonable.
18-22/02/2019	Poster	EMODnet Chemistry poster in the 25th Session of the IOC/IODE Session and Scientific Conference, Tokyo, Japan	Sharing knowledge on data standards adopted at European scale.
18-19/03/2019	Oral presentation	Responsible data management at pan-European scale	EMODnet Chemistry responsible data management at pan-European scale presented at Ocean Dialogue 2019
19-21/03/2019	Remote oral presentation	INSTAC General Assembly	Recognize a common interest in biogeochemical data. Present the MoU aiming to set cooperation in Metadata & data exchange from EMDChem to

			CMEMS and vice versa, in the Development of products and Teaming up in relevant projects (e.g. ENVRI-FAIR, SeaDataCloud2)
29/03/2019	Oral presentation	MSFD board of experts: Contaminants online workshop	Contaminants maps evaluation before the official publication
SUM of oral presentations	7		(Total # of oral presentations)
SUM of posters presented	1		(Total # of poster presented)

Relevant scientific and/or popular publications (scientific papers, book chapters, conference papers, ...) published by EMODnet Chemistry or of which we know that have been published using/referring to EMODnet Chemistry data or data products during this reporting period are also reported here in the table.

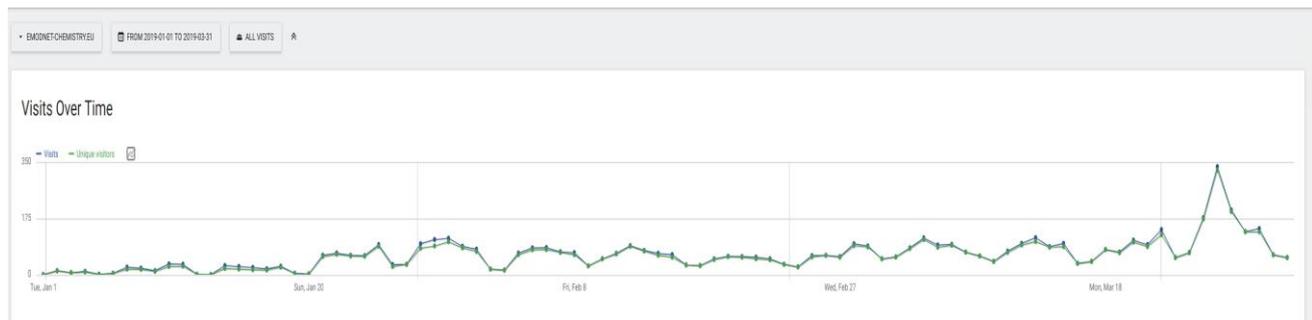
Table: List of known publications using EMODnet data or data products.

Date	Name of journal, conference, ...	Publication title	Authors	Organisation(s)
05/2019*	Journal of Marine Systems	Mean annual and seasonal circulation patterns and long-term variability of currents in the Baltic Sea https://doi.org/10.1016/j.jmarsys.2018.12.011	Jan Jędrasik, Marek Kowalewski	Institute of Oceanography, University of Gdańsk

On 27th March 2019, EMODnet Chemistry beach litter map was promoted as Map of the Week for the European atlas of the seas.

6 Comments about the monitoring indicators

The yellow worksheets of the indicators annex are provided by external organisation (TRUST-IT) in accordance with the Secretariat. During the quarter, the web metrics system was not working till the 22/01/2019, as can be seen below.



Highlights:

- Trend of Number of manual CDI downloads: 473.15%.
- 21 new data products.
- Marine litter data products were released on 25/3/19, and we already see big interest in few days.
- Big increase in web traffic.
- Downtime:
- Table 8.2.2 EMODnet DATA PRODUCTS: big decrease of DIVA products downloads. However, it can be easily explained for the older products (EMODnet 2 10-year products), since they are available only via Sextant catalogue, and not via OceanBrowser where they are not displayed anymore.

Observations:

- In indicator 8.2.2, table 'Top plotting of DATA PRODUCTS', we see that almost all top-plotted products are in water body matrix, and only one is in biota ("Copper in Mytilus"). Also in the previous report, only one layer was not in water body, but it was in sediment ("Mercury per unit dry weight of sediment").

It is not clear to EMODnet Chemistry how the timeout metrics is so different compared to their own monitoring tool metrics, which reports 100% availability. TRUST-IT will immediately alert the Portal if the issue will appear again, so they can better analyse it, and improve the web site responsiveness upon need.

*The most popular portal content is again product, showing a **positive trend of 449%**, while policy was almost not navigated in the quarter. EMODnet Chemistry portal was mostly used with desktop devices, confirming the scientific focus of the portal users.*

7 Annex

8 New monitoring indicators

Please consult and look at the designated excel template.

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.