

# **EMODnet**



European Marine Observation and Data Network

## EMODnet Thematic Lot n° 0 – High Resolution Seabed Mapping (HRSM)

EASME/EMFF/2015/1.3.1.7/SI2.742125 Start date of the project: 20/12/2016 - (24 months) EMODnet Phase III – Quarterly Progress Report (6) Reporting Period: 01/04/2018 – 30/06/2018

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#### Disclaimer

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### **1** Highlights during the reporting period

<u>Task 1 - Gather and give access to bathymetric survey data</u>: data providers finalised their gathering and making bathymetric data sets ready for transfer and use by the basin coordinators. Globe software was used for processing and pre-gridding. Guidance and support was given by MARIS and IFREMER for populating the CDI and Sextant metadata catalogues. Total number of CDIs has slightly increased from 27066 to 27078 records and Composite DTM entries from 131 to 142. There are contributions from 51 data providers. For example quite some additional data has been gathered for the Black Sea region which now has a coverage of 30% of its area as illustrated below.



Figure: Area covered by all data contributions available for the new EMODnet DTM

**Task 2 - Compile a multi-resolution digital terrain model of European seas:** the basin coordinators have selected and merged the datasets in order to build the regional DTMs. All have finalised this task and new regional DTMs have been forwarded to GGSGC as overall integrator. In addition QA-QC reports have been drafted by the basin coordinators. The figure below give an example from the new regional DTM for the lberian coast – Atlantic ocean region.



Figure: Example of high quality data around Iberia- Tore Sea Mountain, Nazaré, Lisbon and Setúbal canyons in front of Portugal



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The integration of the regional DTMs into the overall EMODnet DTM has made great progress since the start in March 2018 by GGSGC with support from basin coordinators and MARIS. It follows a workflow as described in the previous quarterly report. The whole area is divided in 64 sub-tiles in order to be easily managed. Some considerable local quality issues were identified in some regional DTMs which required solving: e.g. selecting other data sets and applying local interpolation and smoothing techniques. This has caused extra efforts and has resulted in delay in the overall process. The production of the new EMODnet DTM is now almost ready. Remaining are further actions for checking the presence of all CDI/CPRD references, and quality assessment (visual checks of remaining artefacts). Next steps concern making the new DTM ready for integration in the portal as part of Task 4.

• Task 3 - Establish best-estimate European digital coastlines and compile overview of legal baselines: baseline and coastline data of national authorities have been collected so far from 21 countries. Responsible authorities were identified for most of the 33 countries with a coastline in Europe. All data gathered has been merged and converted to the same format. A report has been drafted by Deltares, describing the information available per country, the resolution, the source of the data and the institute providing/ hosting the data. This report has recently been circulated to all consortium members for validation and further completion.

The methodology used for determining the European coastlines has been described in detail in the previous quarterly report. Using e.g. Sentinel and Landsat satellite images the land-water difference can be observed from space. Extensive processing is needed to filter for example for clouds, ice and shadows.



Figures: 1) aerial picture of Faro, Portugal, 2) EMODnet Bathymetry DTM 2016, 3) resulting image after water detection task on Sentinel 2 and Landsat 8 images for the years 2013-2018. Extraction of coastlines ongoing.

A water index has been computed at 10m resolution for the full EMODnet-bathymetry region. Linking these data to sea-level variations (from GTSM, see below) coastlines can be generated for high-water, mean sea-level and high-water. Current work focusses on cleaning up of coastlines and production of final products. While results are accurate in many places, some regions remain difficult and additional work is needed. In the future it seems that the approach can be extended to estimate intertidal bathymetry with similar methods. With the ability to convert from LAT of Chart-datum to Mean-Sea-Level the next release of the EMODnet DTM will also be made available relative to MSL. This will make the data more suitable for modelling, coastal zone management and many non-nautical purposes. The computation will be performed with a Global Tide-Surge Model of Deltares. The model has been improved. It now includes e.g. the effects of thermal expansion and radiational tides that are important in the Mediterranean and Baltic. The coastal resolution has been increased to 1.25km to better represent straights and estuaries.

• <u>Task 4 - Establish machine-to-machine connections to data and data products</u>: MARIS and GGSGC have discussed how to integrate the new DTM in the Bathymetry Viewing and Download service and associated actions. The new DTM (1/16) will replace the existing common DTM (1/8) in the layer



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menu of the Bathymetry Viewing and Download service; also source references layer, isolines layer etc will be replaced and the OGC web services (WMS, WCS) will be updated. 3D viewing will be added as extra functionality by GGSGC in cooperation with CORONIS who will generate the 3D model from the new DTM. CORONIS will document the 3D software and underpinning process for publishing at the EMODnet Bathymetry portal and most probably the software will be made available at GitHub. The downloading function will include the usual file formats; however the number of tiles increases from 16 to 64 due to the higher resolution and associated increase in volume. The 64 DTM tiles will be converted into several supported data formats. Considering all remaining activities, a realistic release date for the new EMODnet DTM with a resolution of 1/16 arc minutes (ca 125 m \* 125 m), reference to LAT and including 3D viewing capacity has been set at  $\mathbf{1}^{st}$ September 2018. In a later stage (November 2018) the Bathymetry Viewing and Download service will be expanded with a layer with high resolution hot spots and the 64 downloadable tiles will also be made available with reference to MSL. For the high resolution layer data providers are requested to process and pre-grid their data sets with Globe to the highest resolution (choosing 1/32 or 1/64 or 1/128 or 1/256 or 1/512) which is feasible for them for public release considering their data policies. The hot spots layer might indicate the contours of the hot spots, while users should be able to zoom in from the common DTM layer as deep as the hotspot resolution allows. For the LAT to MSL conversion use will be made of the tidal model of Deltares. Moreover the new quality index will be prepared and published for the new common DTM layer (1/16).

Further progress was made by IFREMER with the development for the pilot Collaborative Virtual Environment (CVE) which focuses on generating 2 neighbouring RDTMs (West Med and Central Med) and 1 additional RDTM (Bay of Biscay) using online Globe (in the cloud) and involving only basin coordinators, namely IFREMER, CNR-ISMAR and Shom. IFREMER has reserved a storage space of 3TB on the DATARMOR cloud infrastructure and a start has been made with loading the same preprocessed and pre-gridded data sets that have been used for the new regional DTMs. The DATARMOR data pool will have links to the CDI and Sextant services to facilitate the Globe Workflow. The three target RDTMS have recently been prepared in the traditional way and the pilot will focus on redoing this from the same starting position, but this time having all data and the Globe software online together in the DATARMOR cloud facility. The pilot will provide insights whether the actual processing can be accellerated, how the overall workflow can be improved, e.g. by having ability to compare the new built DTM underway with the old currrent DTM, and also how the two basin coordinators for the neigbouring regions can collaborate, in particular for establishing seamless boundaries between their two regional DTMs. The 3TB data storage infrastructure can also host the working space and the merged products processed by the regional coordinators. This space is called « DATAWORK » and will give facilities for archiving, exploring and using the pre-gridded DTMs of all contributors. Two types of Collaborative Environment are explored and compared: Virtual Machine+Globe versus Full web workbench. The latter has the preference. Challenge is to make the tools used by the basin coordinators available as a Web application running on the DATARMOR infrastructure. Basin coordinators can then process and merge contributed DTMs inplace, and no further download/upload of source and merged DTMs is required. As a prototype, an OGC WPS is being developed, facilitating to select DTMs stored on the "DATAWORK" space and merge them. A meeting of the Technical Working Group is planned at 27 September 2018 at IFREMER in Brest, France to discuss the CVE pilot progress and also other technical developments.

- **Task 5 Maintain a web portal**: the web portal was operated and maintained with adding news and promotion items.
- <u>Task 6 Operate a help-desk</u>: several questions were received and answered by the helpdesk. The user questions received and answered are detailed in chapter 3 and Annex 1. Upon request of the EMODnet Secretariat MARIS selected and provided a short list of EMODnet Bathymetry users from research and industry for follow-up interviews by the EMODnet Secretariat.



- <u>Task 7 Achieve international interoperability</u>: activities are ongoing as earlier reported in the 'Report on Interoperability and International Collaboration' which was submitted to the EU together with the 1<sup>st</sup> Annual Progress report.
- <u>Task 8 Achieve INSPIRE compliance</u>: in May 2018 together with the SeaDataCloud and EMODnet Chemistry projects five INSPIRE change requests were prepared and submitted to the INSPIRE team and process concerning the metadata validator and the data implementation rules. Follow-up of these change requests is expected end of 2018. It appears that also other communities experience comparable INSPIRE short comings.
- <u>Task 9 Monitoring of performance</u>: registration of downloading users and their downloaded DTM tiles and related formats will be added by means of an order form. The order form requires completing personal details (full name, country (menu), business category (menu), email-address, affiliated organization (optional)) OR alternatively to register and login using Marine-ID. Both options will be offered. And the user has to complete: reason of downloading by a menu and free text. The order form functionality will be build by MARIS and GGSGC. The overall performance is continuously measured and its results are reported in the separate indicators spreadsheet.
- <u>Task 10 Project management</u>: The coordinator and technical coordinator prepared the 5th quarterly progress report which was accepted by EU (EASME and DG MARE). The final plenary project meeting is being planned for end October 2018.



### **2** Challenges encountered during the reporting period

Main challenge	Measures taken
Establishing high quality regional DTMs and integrated EMODnet DTM	A common methodology is used by all basin coordinators, including all using GLOBE software. That software is also used beforehand by all data providers to process and pre-grid their data contributions according to the EMODnet standards. The integration is done by the integrator who has an additional workflow and software tools for visualisations, checking inconsistencies, identifying artifacts which can be overcome, also in dialogue with basin coordinators, by local smoothing, replacing used data sets and other ways.
Establishing the European coastlines	As major input use is made of satellite images from Sentinel and Landsat, next to in-situ data. A European tidal model is used to cope with tidal elevations and to determine the coastlines at different references. Issues are still areas with ice coverage and complex intertidal areas whereby it is difficult to determine the coastlines.



### **3 User Feedback**

Date	Organisation	Type of user feedback (e.g. technical, case study, etc.)	Response time
2018-04-04	ExxonMobil, ?	Terms and conditions for downloading and use of EMODnet DTM	A few days later
2018-04-09	?, France	Problem with WCS	Same day
2018-04-10	??	Question about ODV format	Same day
2018-04-24	Karadeniz Technical University, Turkey	Question about a position at EMODnet Bathymetry because of study	A few days later
2018-04-30	Ecopath International Initiative	Question about brush strokes to the EMODnet secretariat	A week later
2018-04-25	Massachusetts Institute of Technology, USA	Question about downloading	A few days later
2018-04-30	IRM-Smart Pipeline Data BV, NL	Interest in survey data of North Sea for a pipeline provider.	A few days later
2018-04-30	??	Question about acknowledgement because of publishing.	A few days later
2018-05-07	Aquavision, NL	Question about reference levels.	A week later
2018-05-11	??	Question about circles on Google Maps	A few days later
2018-05-16	??	Question about wrecks data	A week later
2018-05-18	ULPGC, Spain	Compliment and explaining how they use EMODnet Bathymetry.	A few days later
2018-05-23	MSPTV, UK	Looking for bathy data in Danish sector	Same day
2018-05-29	ICM-CSIC, Spain	Question about datums	Same day
2018-06-13	AZTI, Spain	Has local problem with viewing the bathy service	Same day
2018-06-14	TR-ARGE, Turkey	Question about bathy data for Turkish waters	Same day

Annex 1 gives more details.



### 4 Meetings held/attended since last report

#### Table: Meetings organised and attended.

Date	Type event (meeting, training (workshop), etc.)	Attended (A) / Organised (O)	Short description and main results (# participants, agreements made, etc.)
24 May 2018	Web conference	0	Meeting between MARIS and GGSGC to discuss the technical integration of the new DTM and the inclusion of download user registration in the Bathymetry Viewing and Download service.
6 - 7 June 2018	Workshop in Herrsching, Germany	A	SDB Day 2018: Participation of MARIS and Shom, both with presentations, at the Satellite Derived Bathymetry workshop, organised by EOMAP. Also used by Shom and MARIS to discuss project progress and actions.
19 June 2018	Meeting in Brest, France	0	Meeting between Shom and IFREMER on progress of CVE development
		2	
SUM of O		1	(Total # of meetings organised)



### **5** Outreach and communication activities

#### 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.)
06- 07/06/2018	SDB Day 2018 Workshop, Herrsching -	EMODnet HRSM was presented and promoted at the SDB Day (Satellite Derived Bathymetry), which was organised by EOMAP in Herrsching – Germany, 6-7 June 2018. This offered a unique opportunity for hydrographic institutions, government and industry to discuss capabilities, data integration, requirements and quality standards. MARIS presented the European marine data exchange and promoted to contribute to EMODnet with bathymetric data submissions to the EMODnet Ingestion portal. Shom presented EMODnet HRSM and how use is made of SDB for filling gaps in coastal and near shore zones. The presentations are included in the web portal as well as a reference to the SDB Day website with all its presentations. See: https://sdbday.org/	Ca 60 participants from for hydrographic institutions, government and industry, including IHO Secretary General.
01/04/2018 - 30/6/2018	Updates of web portal with news items and promotion material	Extra news items and presentations at web portal	
SUM			(Total # of)
SUM			(Total # of)

Relevant scientific and/or popular publications (scientific papers, book chapters, conference papers, ...) you published or of which you know they have been published using/referring to EMODnet data or data products during this reporting period must also be reported here.



#### [Please, provide information in the table.]

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

Date	Name of journal, conference,	Publication title	Authors	Organisation(s)
06/2018	Journal of Geophysical Research: Oceans. (Journal)	"Comparative effects of climate change and tidal stream energy extraction in a shelf sea."Bottom-trawling fisheries influence on standing stocks, composition, diversity and trophic redundancy of macrofaunal assemblages from the West Iberian Margin.	De Dominicis, Michela, Judith Wolf, and Rory O'Hara Murray.	National Oceanographic Center, UK
06/2018	Deep Sea Research Part I: Oceanographic Research Papers. (Journal)	Bottom-trawling fisheries influence on standing stocks, composition, diversity and trophic redundancy of macrofaunal assemblages from the West Iberian Margin.	Ramalho SP, Almeida M, Esquete P, Génio L, Ravara A, Rodrigues CF, Lampadariou N, Vanreusel A, Cunha MR.	Universidade de Aveiro, PT Ghent University, BE Hellenic Center for Marine Research, GR
05/2018	Boreas (Journal)	Wahlenbergfjord, eastern Svalbard: a glacier⊡surrounded fjord reflecting regional hydrographic variability during the Holocene?.	Bartels M, Titschack J, Fahl K, Stein R, Hebbeln D.	University of Bremen, DE Alfred Wegener Institute, DE
05/2018	In Renewable Energy Congress (IREC), 2018 9th International (Conference)	Modeling the velocity of marine currents resources on a Moroccan coastal (Tarfaya) using SWAN model.	Hazim S, Janan MT, Elouatouati A, Benazzouz A, Ghennioui A, Ikken B.	University of Rabbat, Morocco
05/2018	Rivista Italiana di Paleontologia e Stratigrafia (Research In Paleontology and Stratigraphy) (Journal)	QUATERNARY BUILD- UPS AND RHODALGAL CARBONATES ALONG THE ADRIATIC AND IONIAN COASTS OF THE ITALIAN PENINSULA: A REVIEW.	COLETTI G, BRACCHI VA, MARCHESE F, BASSO D, SAVINI A, VERTINO A, CORSELLI C.	University of Milano, IT Ghent University, BE
05/2018	Ocean & Coastal Management. (Journal)	Co-location opportunities for renewable energies and aquaculture facilities in the Canary Archipelago.	Weiss CV, Ondiviela B, Guinda X, del Jesus F, González J, Guanche R, Juanes JA.	Universidad de Cantabria, SP Oceanic Platform of the Canary Islands, SP



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05/2018	Thesis	"Modelling the ecological niche of cetaceans: new perspectives and applications".	Fernández Morrón, Marc.	Universidade dos Açores, PT
05/2018	Geosciences (Journal).	Variability of Shelf Growth Patterns along the Iberian Mediterranean Margin: Sediment Supply and Tectonic Influences.	Durán R, Lobo FJ, Ribó M, García M, Somoza L.	Instituto de Ciencias del Mar, SP IGME, SP Macquarie University, Australia
05/2018	Global change biology. (Journal)	Predicting shifting sustainability tradeDoffs in marine finfish aquaculture under climate change.	Sarà G, Gouhier TC, Brigolin D, Porporato EM, Mangano MC, Mirto S, Mazzola A, Pastres R.	Palermo University, IT Northeastern University College of science, USA
04/2018	Geosciences (Journal)	Geomorphometric characterization of pockmarks by using a GIS-based semi- automated toolbox.	Gafeira J, Dolan M, Monteys X.	British Geological Survey, UK Norvegian Geological Survey, NO Irish Geological Survey, IE
04/2018	Landslides (Journal)	Large landslide stress states calculated during extreme climatic and tectonic events on El Hierro, Canary Islands.	Blahut J, Baroň I, Sokoľ L, Meletlidis S, Klimeš J, Rowberry M, Melichar R, García-Cañada L, Martí X.	Brno University, CZ Instituto Geográfico Nacional, SP
04/2018	book	Gas Hydrates 2: Geoscience Issues and Potential Industrial Applications.	Ruffine L, Broseta D, Desmedt A, editors.	lfremer, FR Pau University, FR University of Bordeaux, FR
04/2018	Measurements. Journal of Atmospheric and Oceanic Technology. (Journal)	Consistency between Sea Surface Reconstructions from Nautical X-Band Radar Doppler and Amplitude	Støle-Hentschel S, Seemann J, Nieto Borge JC, Trulsen K.	University of Oslo, NO Helmholtz-Zentrum, DE Univesity of Alcala, SP
04/2018	Thesis	Toward a coastal processing resolving ocean model- nesting LES-COAST and MITgcm	Palma, M	University Trieste, IT



### 6 Annex: Other documentation attached

#### Feedback from and to users

Subject:Re: EMODnet Bathymetry Feedback formDate:Mon, 9 Apr 2018 17:26:43 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@exxonmobil.com

Dear ....,

The EMODnet Bathymetry DTM can be downloaded in tiles and used as open data. However when using the DTM data products in publications, users are requested to include an acknowledgement to the EMODNet Bathymetry portal as follows:

<sup>'</sup>Digital bathymetry has been derived from the EMODnet Bathymetry portal (<u>http://www.emodnet-bathymetry.eu</u>). This is a European initiative, started in 2009, to compile and maintain a catalogue of available bathymetric data sets and to produce and publish the EMODnet Digital Terrain Model (DTM) for the European sea regions. The latest DTM has a grid resolution of 1/8 \* 1/8 arc minutes, was released in October 2016 and has the following reference: <u>http://doi.org/10.12770/c7b53704-999d-4721-b1a3-04ec60c87238</u>'

We also have a disclaimer, which you can find at: <u>http://www.emodnet-bathymetry.eu/data-products/disclaimer</u>

Hope this helps. Kind regards Dick M.A. Schaap Technical Coordinator

On 4/4/2018 15:47, noreply@maris.nl wrote:

Email......@exxonmobil.comFeedback /Hello, can you point me to the Terms and Conditions of use for downloading the<br/>Bathymetry data from the Portal?

Subject:Re: EMODnet Bathymetry Feedback

Date: Mon, 9 Apr 2018 20:43:55 +0200

From: Dick M.A. Schaap <dick@maris.nl>

To: .....@laposte.net

Dear ....., Please try again. We have reset some memory and now it works for us. Kind regards Dick M.A. Schaap Technical Coordinator On 4/9/2018 17:56, <u>noreply@maris.nl</u> wrote:



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#### **Quarterly Progress Report**

Emailaddress: Feedback: .....@laposte.net

Dear Sir : Unable to download bathymetry data for the area of interest, namely : between Hendaye and noth of Bayonne (Côte Basque, Landes, canyon). Clicking on Downlaod products has no effect. Ditto for Download area of interest. Kind regards, Laurent Delphin

Subject:Fwd: Re: EMODnet Bathymetry Feedback formDate:Tue, 10 Apr 2018 10:23:18 +0200From:Dick M.A. Schaap <dick@maris.nl>To:.....@qq.com

Dear .....,

The SeaDataNet ODV format is an ASCII format and can be opened and edited with a text editor, like Notepad. More information about the ODV format can be found at: https://www.seadatanet.org/Standards/Data-Transport-Formats

Kind regards, Dick M.A. Schaap Technical Coordinator On 4/10/2018 9:07, <u>noreply@maris.nl</u> wrote:

Email .....@qq.com Feedback / Question Hello! How open and edit the data format of ODV ?Thank you!

Subject:Re: EMODnet Bathymetry Feedback formDate:Tue, 26 April 2018 08:27:29 +0200From:Dick M.A. Schaap <dick@maris.nl>To:.....@outlook.com

Dear .....,

EMODnet Bathymetry is a European project, executed by a consortium of public and private organisations from many European countries. Each of them have their own tasks. Unfortunately we do not have job positions as project core team, also not for volonteers. However you might approach one of our partners, who are working on various bathymetry projects. I have no suggestion. Have a look at the partner list: <a href="http://www.emodnet-bathymetry.eu/partners">http://www.emodnet-bathymetry.eu/partners</a>

Kind regards Dick M.A. Schaap Technical Coordinator

On 4/24/2018 21:16, noreply@maris.nl wrote:

Email .....@outlook.com

Dear Sir/Madam, I am a master student department of Geomatics Engineering in Karadeniz

- Feedback / Technical University. I want to study as a valunteer intern in your projects. I want to do an
- Question internship between 1 August- 1 November . My expenses will be paid by Erasmus + . I am writing to enquire about this matter. Thank you very much your time. Sincerely



Subject:EMODnet Bathymetry Feedback formDate:Sun, 29 April 2018 17:46:46 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@mit.edu

Dear .....,

You can download the EMODnet DTM in tiles from the EMODnet Bathymetry portal. You do not need the Marine-ID for that (at least not now). Have a look at: <u>http://www.emodnet-bathymetry.eu/data-products</u> and use the Bathymetry Viewing and Downloading service at: <u>http://portal.emodnet-bathymetry.eu/</u> This is quite user friendly. Otherwise read the Help section: <u>http://portal.emodnet-bathymetry.eu/help/help.html</u>

The Mediterranean Sea consists of a number of tiles that you can download. If you chose the NetCDF format, then you can load these tiles in the dedicated 3D software that you can also download from another portal:

http://www.geo-seas.eu/content/content.asp?menu=0290000\_000000

which allows you then to have the full Mediterranean Sea in 3D view. Please do read the manual of that software.

Hope this helps you for your challenge to make a physical model. Kind regards Dick M.A. Schaap Technical Coordinator

On 4/25/2018 3:07, noreply@maris.nl wrote:

Email	@mit.edu
Feedback / Question	Hello, I have successfully registered for a Marine ID and would like to obtain a comprehensive DEM model of the entire Mediterranean basin. As an architecture student my intent is to make a physical 3d model from the digital model. I am having difficulty in navigating the site, and I was hoping that you might be able to provide some insight into what files I should download and in what format? I am accustomed to generating topographic or bathymetric lines from a DEM image file in QGIS. Is there a compiled model of the Mediterranean already that I might be able to access? Thank you, Natalie

Subject:Re: FW: Form submission from: Contact us Date: Tue, 8 May 2018 23:47:43 +0200

**From:** Thierry Schmitt <thierry.schmitt@shom.fr>

To: .....@gmail.com

CC:

Dear .....

Thank you for your detailed feedback. Here are some technical elements, which can provide some answers





to your questions. As you probably know EMODnet Bathymetry is a compilation of multiple bathymetric datasets from multiple organisations, essentially from EU.

We have made a lot of efforts to combine these datasets in terms of format and gridding interpolation. We are strongly advising our collaborators to process their data at the best level they can (mainly with respect to tide corrections, sound velocity processing, erroneous soundings, vertical referencing). When each of our contributors provide their dataset, we merge them as they are, as those are already sub-sampled. Finally, when no data are existing for the area we fill the remaining gaps with GEBCO.

I believe that what you are seeing is probably due to:

- different density datasets (multibeam) compared to lower density further up on shelf
- different tide or SVP correction of the Multibeam data.

We will investigate this further in details for the next release. In the mean time what I can suggest you is to locate the data contributing to your area of interest using "source references layer" within the list of layers in the drop-down list. Then, you can ask the different data providers of the area to get hold of the data at their native resolution.

Would you please give us further information about the positioning (lat lon coordinates) of your area of interest.

Once again, thanks for your comment. Best regards, EMODnet Bathymetry.

Le 01/05/2018 à 07:17, Jan-Bart Calewaert a écrit : Dear Thierry, Dick,

We received below feedback from a user downloading EMODnet mean depth data. Could you have a look and revert back to <u>jeroen.steenbeek@gmail.com</u> with <u>secretariat@emodnet.eu</u> in cc?

Many thanks!

Jan-Bart

-----Original Message-----

From: postmaster@vliz.be [mailto:postmaster@vliz.be]

Sent: maandag 30 april 2018 23:38

To: <u>secretariat@emodnet.eu</u>

Subject: Form submission from: Contact us

Submitted on Monday, April 30, 2018 - 23:37 Submitted by anonymous user: 85.56.93.248 Submitted values are:

eek



Email: .....@gmail.com

Organisation name: Ecopath International Initiative Organisation type: Academia/Research We would like to learn about your experience using EMODnet. Please leave us your question or provide your feedback here: Hello,

I downloaded Emodnet mean depth data for a small area in the North West of the Mediterranean and the data seems to contain brush strokes. I think this is something that you do not want to distribute.

In an attempt to show you I have zipped up two images of this data - one image with the data loaded in ArcGIS, and one with the brush strokes clearly highlighted - and the geotiff that I downloaded earlier from Emodnet. The zip file is available from my Dropbox here:

https://dropbox.com/s/ggt9neqdtgolwce/emodnet%20feedback.zip?dl=0

Can you at least tell me what I'm looking at? The Emodnet data portal background does not show these brush strokes, it would be fantastic if I could somehow obtain the 'clean' data.

Thanks on forehand,

The results of this submission may be viewed at:

http://www.emodnet.eu/node/48026/submission/21

Subject:EMODnet Bathymetry Feedback formDate:Wed, 2 May 2018 18:03:58 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@irm-spd.com

Dear .....,

The EMODnet Bathymetry portal has a service to discover and request access for downloading of the bathymetric survey data that we are compiling with our network of data providers. Moreover we have the EMODnet Digital bathymetry (DTM) which can be viewed and downloaded in tiles without any restrictions. These services are easy to use and there is help and guidance information available at the portal for better understanding.

However it is required that users make use of these services to do their own queries and requests. The Helpdesk is to answer questions about the functionality, but not there to undertake your data queries. Therefore I invite you to try out the services for your specific use cases as we can not help you in that sense. I hope you understand our position. And of course that you will appreciate the data and DTM services. Kind regards,

Dick M.A. Schaap Technical Coordinator



4/30/2018 12:12, <u>noreply@maris.nl</u> wrote:

 

 Email
 .....@irm-spd.com

 Feedback / Question
 We are busy with analyzing some bathymetric data for a survey of a pipeline provider in the north sea. We would like to have the data of the seabed for the recent years. Can you please give us a contact name and phone in order to talk to you?

Subject:Re: EMODnet Bathymetry Feedback formDate:Wed, 2 May 2018 18:27:21 +0200From:Dick M.A. Schaap <dick@maris.nl>To:.....@hotmail.com

Dear .... You are free to publish.

However as acknowledgement please include: Digital bathymetry has been derived from the EMODnet Bathymetry portal (<u>http://www.emodnet-bathymetry.eu</u>). This is a European initiative, started in 2009, to compile and maintain a catalogue of available bathymetric data sets and to produce and publish the EMODnet Digital Terrain Model (DTM) for the European sea regions. The latest DTM has a grid resolution of 1/8 \* 1/8 arc minutes, was released in October 2016 and has the following reference: <u>http://doi.org/10.12770/c7b53704-999d-4721-b1a3-04ec60c87238</u>

Kind regards Dick M.A. Schaap Technical Coordinator

On 4/30/2018 17:58, noreply@maris.nl wrote:

Email .....@hotmail.com

Hi, I am publishing a research paper on microplastics in PLoS ONE journal (open access) and I Feedback / have some figures containing bathymetric data from EMODnet. I need written permission to Question publish under the Creative Commons Attribution License (CCAL) CC BY 4.0 (http://creativecommons.org/licenses/by/4.0/) license. Thank you in advance.

Subject: EMODnet Bathymetry Feedback form

- Date: Wed, 16 May 2018 17:41:12 +0200
- From: Dick M.A. Schaap <dick@maris.nl>

To: ......@aquavision.nl

Dear ....,

All depths mentioned in the EMODnet DTM are to LAT (Lowest Astronomical Tide). However we are working on an upgraded DTM with higher resolution, where possible, and this will become available for downloading, both in LAT and MSL. The latter will be done by making use of the Global Tide Surge Model (GTSM) Version 2 of Deltares (Netherlands). This next version is expected for release by mid July 2018. Kind regards Dick M.A. Schaap Technical Coordinator



On 5/7/2018 14:30, noreply@maris.nl wrote:

Email	@aquavision.nl
Feedback /	Question: Is all your bathymetric data referenced to Lowest Astronomical Tide (LAT)? Can I
Question	also get the data referenced to Mean Sea Level?
================	

Subject: EMODnet Bathymetry Feedback form

Date: Wed, 16 May 2018 18:16:58 +0200

From: Dick M.A. Schaap <dick@maris.nl>

To: .....@gmail.com

#### Dear .....,

Thanks for your question. In our EMODnet DTM data there is nothing visual that looks even close to circles. On google earth there are indeed circles in the water but we have no idea what they are. Our first guess is that it are artifacts caused by Google's image processing because they are on the edge of the satellite imagery and the sea rendering. Google does a whole lot of smoothing to create a nice picture. But if you zoom in you can see that it are clearings in the darker seabed. Maybe an anchored ship who's anchor chains have dragged over the seabed. No idea, It is not a bathymetry feature but maybe more a vegetation. The circles are also visible at the first historical picture in the Google Earth (18/02/2008). Focusing on the southernmost circle, which is the shallowest, does not seem to overlap the character of the seabed. It looks like something has "shaved" the posidonia meadow. All circles have the same diameter, about 180-182 meters.

So frankly we have no idea what these circles are in Google Earth. Anyway they are not in our EMODnet product.

Kind regards, Dick M.A. Schaap Technical Coordinator

#### Van: <<u>noreply@maris.nl</u>>

Datum: 11 mei 2018 om 20:18:23 GMT+2 Aan: <<u>dick@maris.nl</u>> Onderwerp: EMODnet Bathymetry Feedback form

Email	@gmail.com
	Hello, I am a fan of your data and also google earth. I would like to inform you about some
Feedback /	circles i found to the sea, near my living place. you can check them on google earth. The
Question	coordinations are 40 13.237 23 18.071 to 40 12.798 23 18.477 thanks for your time, i am waiting
	for your answer.

Subject:	Re: EMODnet Bathymetry Feedback
	form
Date:	Wed, 23 May 2018 17:32:47 +0200
From:	Dick M.A. Schaap <dick@maris.nl></dick@maris.nl>
То:	@hotmail.com



Dear ....,

I am sorry, but the wrecks layer is not available for download. It is provided to us via OceanWise. If you are interested, you might contact them: Will Girard <a href="mailto:swill.girard@oceanwise.eu">swill.girard@oceanwise.eu</a> Dick M.A. Schaap Technical Coordinator

On 5/16/2018 14:29, noreply@maris.nl wrote:

Emailaddress:	@hotmail.com
Feedback:	Hi, I am unable to download the location data of shipwrecks located in the Dutch Offshore area. The format options appear but after selection of the XYZ format no further download windows open. Could you please provide advice? Ideally I would like to have the type wreck (as per legend) also available in the downloaded file). Kind regards,

Subject:Re: EMODnet Bathymetry Feedback formDate:Wed, 23 May 2018 17:23:24 +0000From:.....@ulpgc.esTo:Dick M.A. Schaap <dick@maris.nl>

Dear Dick,

Usually, we use bathymetry as contour conditions for running wave propagation models. Furthermore, sometimes we need maps including bathymetry to depict the location of measurement devices at sea. Naturally, in case we use EMODnet bathymetry in some of our future publications, it will be properly referenced and acknowledged.

Thanks for the information about new products.

El 23 may 2018, a las 16:26, Dick M.A. Schaap <<u>dick@maris.nl</u>> escribió:

Dear .....

Thanks for the positive feedback. Can you explain somewhat for what purpose you are using it? We are always looking for potential use cases about which we publish.

Right now we are working on a new release of the DTM with higher resolution, where possible, and 3D viewing services. It is planned for mid summer.

Kind regards Dick M.A. Schaap Technical coordinator

On 5/18/2018 16:43, noreply@maris.nl wrote:

Emailaddress:	@ulpgc.es
Feedback:	Great utility Thanks

Subject:EMODnet Bathymetry Feedback formDate:Wed, 23 May 2018 18:37:48 +0200From:Dick M.A. Schaap <dick@maris.nl>



To: .....@msptv.co.uk

#### Dear ....,

At the EMODnet Bathymetry portal we have a service to discover and request access for downloading of the bathymetric survey data that we are compiling with our network of data providers. The interface also includes a map interface where you can make a lat-lon box as search criterium, next to many other selection criteria.

Moreover we have the EMODnet Digital bathymetry (DTM) which can be viewed and downloaded in tiles without any restrictions. The Bathymetry Viewing and Download service is very versatile and allows you to zoom in on your area of interest, but also to check which data are available there by activating the 'source references layer' or ' survey tracks / polygons' layer., which also can be interrogated for their metadata. These services are easy to use and there is help and guidance information available at the portal for better understanding.

Therefore I invite you to try out the services for your specific use cases as the Helpdesk can not do this for you. I hope you understand our position. And of course that you will appreciate the data and DTM services. Kind regards,

Dick M.A. Schaap Technical Coordinator

On 5/23/2018 17:16, noreply@maris.nl wrote:

Email .....@msptv.co.uk

Feedback / Question I am looking for good quality bathymetric data on the Jutland/Skagerrak region of the North Sea in relation to a project that I am working on about the Battle of Jutland in World War 1. Do you have such data and if so, how can I get access to it? Many thanks and best wishes

Subject:Re: EMODnet Bathymetry Feedback formDate:Tue, 29 May 2018 08:19:52 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@icm.csic.es

Dear .....,

EPSG 3857 is identifier for Web Mercator and is used (amongs others) by Google Maps. We have not implemented this because the projection is unable to display data up to 90 degrees north (or south). Also we have no plans for this. Kind regards Dick M.A. Schaap Technical Coordinator On 5/28/2018 11:55, noreply@maris.nl wrote:

Email ......@icm.csic.es

To whom it concerns, this is a technical question. I'm trying to integrating your bathymetric Feedback / layers through WMS into a web page with Openlayers that natively uses EPSG: 3857, but you are Serving layer in EPSG: 4326. Although I can easily do things in 4326, I would like to know if you have (or plane to have) these layers in EPSG: 3857?. Thank you



Subject:Re: EMODnet Bathymetry Feedback formDate:Wed, 13 Jun 2018 15:27:08 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@azti.es

Dear ....,

We checked our logs. It appears that ip 150.241.251.14 has done a number of requests which retrieve only the page and css styling, but not the javascript-file. This implicates that the page remains empty. Most probably the javascript is blocked by the user or a firewall. Hope you can overcome the issue which is locally at your side. Kind regards Dick

On 6/13/2018 15:05, Dick M.A. Schaap wrote: Dear ...., I have full view. Can you try the WMS in another portal? It is: <u>http://ows.emodnet-bathymetry.eu/wms</u> Regards Dick

On 6/13/2018 14:40, .... wrote:

Dear Dick,

I try from Chrome and IE, but same result. I wait for long time but result didn't change, I will ask my colleagues to try from their computer. Regards,

De: Dick M.A. Schaap <<u>dick@maris.nl></u> Enviado el: miércoles, 13 de junio de 2018 14:36 Para: ......@azti.es

Dear ...., To our knowledge there is no problem. I just tried and the viewer worked fine. Can you try again? Regards Dick M.A. Schaap Technical Coordinator

On 6/13/2018 14:08, noreply@maris.nl wrote:

Email.....@azti.esFeedback /Dear EMODnet, I would like to access <a href="http://portal.emodnet-bathymetry.eu/">http://portal.emodnet-bathymetry.eu/</a>, but I guessQuestionthere is a problem. Is there any other way to download Europe bathymetry map?

Subject:Re: EMODnet Bathymetry Feedback formDate:Thu, 14 Jun 2018 09:50:30 +0200From:Dick M.A. Schaap <dick@maris.nl>To:......@tr-arge.com.tr



Dear .....,

Thank you for your interest. As you can see from the Source Reference layer in the Bathymetry Viewing & Downloading service most of the bathymetry in Turkish waters is based upon GEBCO (grey) and some scientific cruises. This is because so far we were not able to establish a real data exchange with Turkish data centres such as possibly SHODB. Please have a look at <a href="http://www.shodb.gov.tr/">http://www.shodb.gov.tr/</a> as they might be able to help you. Kind regards Dick M.A. Schaap Technical Coordinator

On 6/14/2018 9:35, <u>noreply@maris.nl</u> wrote:

### 7 New monitoring indicators

Please consult and fill in the designated excel template.

See separate spreadsheet.