

Press release – 13 January 2021

## **European contribution to world seabed mapping effort:**

### **Release of an upgraded version of the highly popular EMODnet Bathymetry Digital Terrain Model**

EMODnet Bathymetry, an initiative of the European Commission, is pleased to announce on behalf of the full consortium with all associated collaborators the release of the latest version of the **EMODnet Bathymetry Digital Terrain Model (DTM)**. With over 33.000 individual tiles downloaded in 2020, this bathymetric product is already widely used in a whole range of applications, from marine science to sustainable ocean governance and blue economy activities.

This new EMODnet Bathymetry product benefited from significant developments and expert inputs in 2020, including new data gathering, reprocessed data, thorough selection of the best data source and use of innovative bathymetric sensors (such as Satellite Derived Bathymetry). It allows users to visualise bathymetric features with greater detail, in addition to providing a powerful 3D visualisation functionality covering all European seas, into the Arctic and Barents Sea, and greater accuracy along European coastlines, thanks to the integration of both in water and satellite datasets. It is available free of charge for viewing and downloading, and sharing by OGC web services from the [EMODnet Bathymetry portal](#).

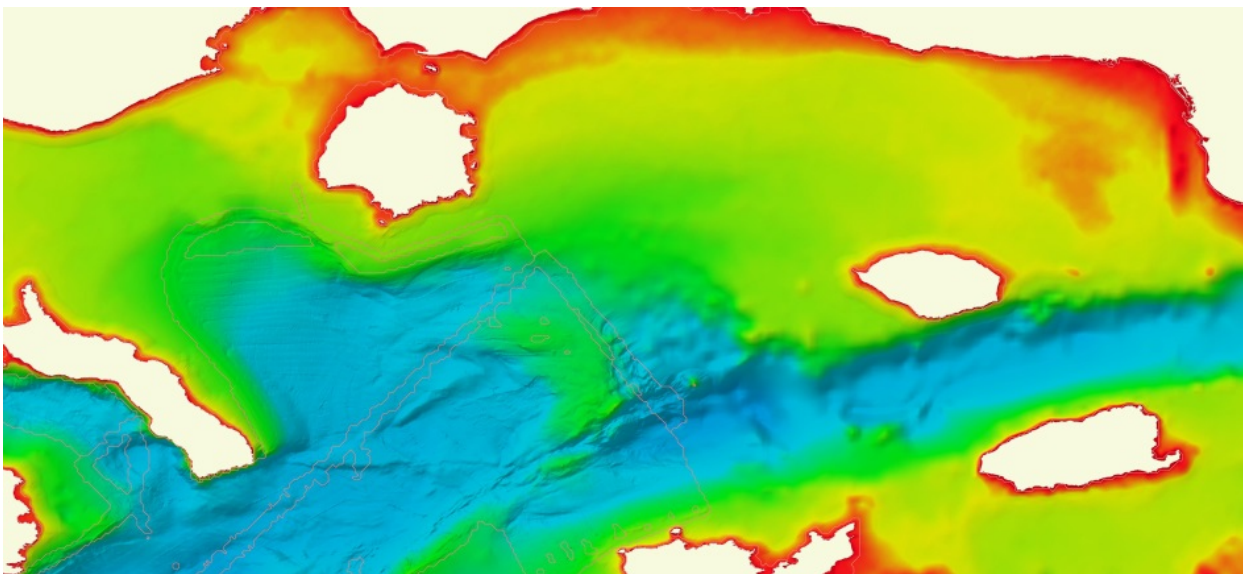
This improved DTM provides users with even greater resolution and coverage of bathymetry across European seas and beyond. These updates contribute to further reducing uncertainty, and are used in real-life settings such as improving society's ability to forecast storm surges, lowering the risks of damage to coastal and offshore installations and increasing public safety. EMODnet Bathymetry is now the go-to place for oceanographers in providing a base geometry for hydrodynamic models, for marine geologists studying morphological processes, and for biologists and conservation managers who require trusted and high-quality seabed habitat maps, which rely on accurate and high-resolution bathymetry, amongst other parameters. EMODnet Bathymetry also supports a wide range of marine and maritime activities, including the Blue Economy, from the marine dredging sector to the planning of pipeline trajectories, locations of offshore wind farms and planning of harbour extensions.

After a decade of European collaborations and technological developments, the [new EMODnet Bathymetry product](#) release offers:

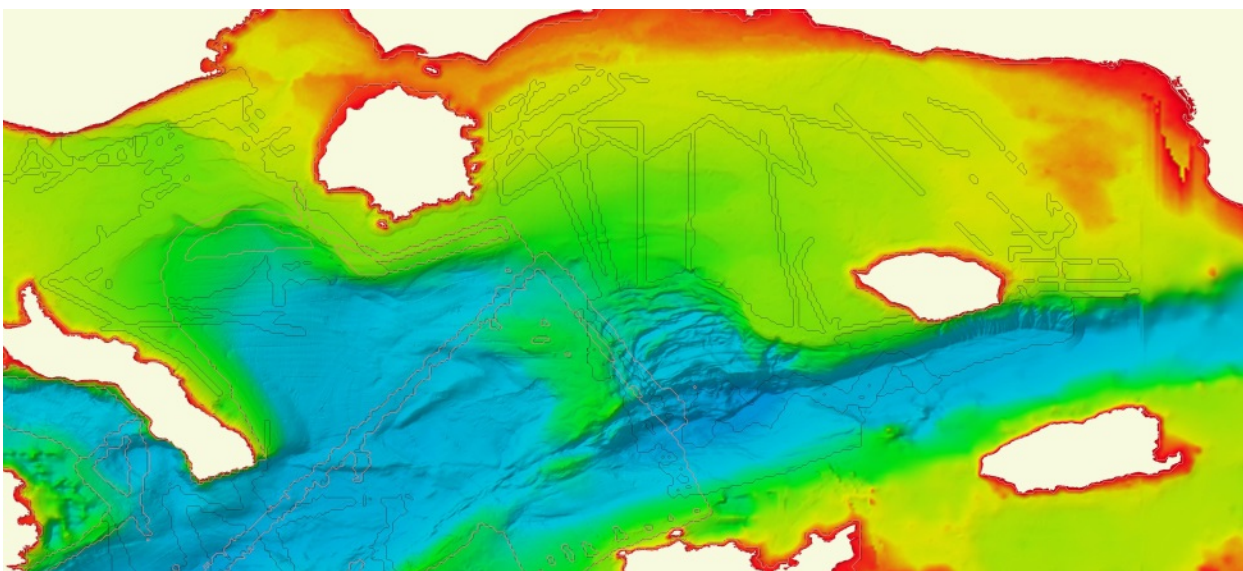
- DTM with 1/16 \* 1/16 arc minutes (circa 115 \* 115 metres) grid resolution covering all European seas from the Mediterranean Sea, the Black Sea, the North-East Atlantic Ocean, up to the Arctic Ocean and Barents Sea;
- A source reference layer and a quality index layer pointing directly to one of the 16141 bathymetric survey data sets and 120 composite DTMs used in the 2020 version;
- Catalogues with over 32.000 unique descriptions of data surveys, composite DTMs and Satellite Derived Bathymetry products originating and gathered from European data holders, covering European coasts, sea regions and global oceans, in co-operation with the European SeaDataNet infrastructure;
- Snapshots of bathymetric DTM products at a higher resolution (up to approx. 10m) than the full DTM;
- Best-estimate European coastlines at LAT, MSL, and MHW, determined from satellite data in combination with the Global Tide Surge Model (GTSM)
- Inventory of official baseline and coastline data as collected from 26 national authorities in Europe;
- Powerful 3D visualisation functionalities;

- Integration of the latest [GEBCO 2020](#) and [IBCAO 4.0](#) grids;
- Extensive user interfaces and OGC web services, also providing the 2019 [EMODnet Bathymetry World Base Layer](#) (EBWBL);
- An [associated DOI](#) for the new 2020 EMODnet DTM.

*"We are releasing the EMODnet Bathymetry 2020 DTM product, at the dawn of the United Nations Decade of Ocean Science for sustainable development, as a clear proof of the European contribution to the world seabed mapping effort. With this upgraded version of the EMODnet Bathymetry DTM, we allow users to have an easy and free access to high quality bathymetric data which can drastically improve their work.",* declared Thierry Schmitt from SHOM (Service hydrographique et océanographique de la marine), the French Naval Hydrographic and Oceanographic Service, Coordinator of EMODnet Bathymetry.



EMODnet DTM 2018 along the coasts of Greece.



EMODnet DTM 2020 along the coasts of Greece (with new survey tracks highlighted)

**Visit the EMODnet Bathymetry Portal: [www.emodnet-bathymetry.eu](http://www.emodnet-bathymetry.eu)**

Please note that EMODnet is in the process to provide a central access point to its data and data products through the Central Portal in the coming months. More information will be provided soon.

## About EMODnet Bathymetry

First launched in 2010, the [EMODnet Bathymetry Digital Terrain Model](#) (DTM) has now become a reference for government, science and industry, being by far the most popular EMODnet product. Regularly visited by circa 3.000 persons per month and with over 2.800 GB of data downloaded in 2020, it provides the most detailed publicly available gridded bathymetry model for all European marine waters. The EMODnet DTM allows users to activate and view bathymetry layers as well as contours and underwater features for the selected areas. Among other functionalities, it is possible to zoom in/out, to switch on/off several layers, as well as to browse data and look up metadata about the underlying data source. With the ambition to refine further the quality and the accuracy of the DTM, considering both European offshore waters and coastal zones, EMODnet invites potential high-resolution bathymetric data providers to help generate an even better DTM product. Data shared and integrated in EMODnet are open access, towards the overarching philosophy for open and Findable, Accessible, Interoperable and Reusable (FAIR) data, with data sets containing associated metadata to fully credit the original data producer and data provenance. Visit the [EMODnet Data Ingestion portal](#) to learn more!

## About the UN Decade of Ocean Science for Sustainable Development

Proclaimed in 2017 by the United Nations General Assembly, the UN Decade of Ocean Science for Sustainable Development (2021-2030) ('the Ocean Decade') seeks to stimulate ocean science and knowledge generation to reverse the decline of the state of the ocean system and catalyse new opportunities for sustainable development of this massive marine ecosystem. The vision of the Ocean Decade is 'the science we need for the ocean we want'. The Ocean Decade provides a convening framework for scientists and stakeholders from diverse sectors to develop the scientific knowledge and the partnerships needed to accelerate and harness advances in ocean science to achieve a better understanding of the ocean system, and deliver science-based solutions to achieve the 2030 Agenda. The UN General Assembly mandated UNESCO's Intergovernmental Oceanographic Commission (IOC) to coordinate the preparations and implementation of the Decade. For more information, visit <https://www.oceandecade.org/>.

## About The Nippon Foundation-GEBCO Seabed 2030 Project

Seabed 2030 is a collaborative project between The [Nippon Foundation of Japan](#) and the [General bathymetric chart of the ocean](#) (GEBCO). Launched at the United Nations (UN) Ocean Conference in June 2017, Seabed 2030 coordinates and oversees the sourcing and compilation of bathymetric data from its five centers into the freely-available GEBCO Grid. Since 2019, EMODnet Bathymetry and the Seabed 2030 Project share a Memorandum of Understanding with the common aim of improving the bathymetric knowledge, while promoting the distribution of this knowledge to all potential users.

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