IHO International Hydrographic Organization

17th Conference of the EAtHC / *17ème Conférence de la CHAtO*

SEABED 2030 Project

Portuguese Hydrographic Office

Agenda Item 03.4A

EAtHC17, Mindelo, Cape Verde, 28 - 30 September 2022 (VTC supported)

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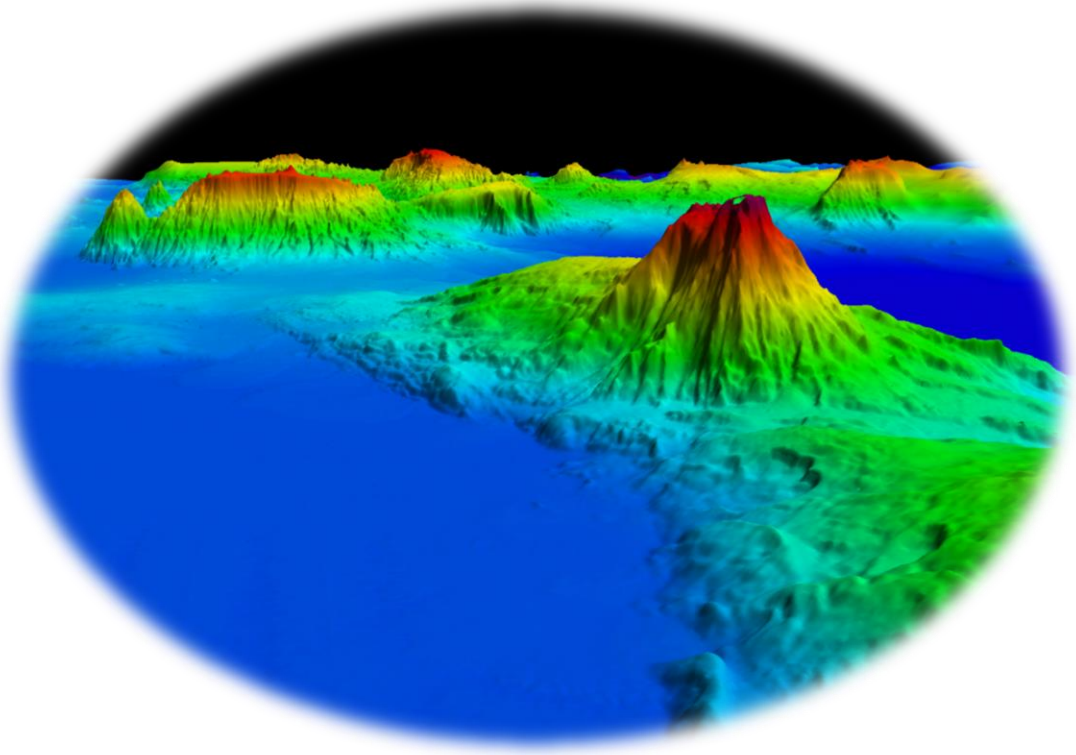
Agenda

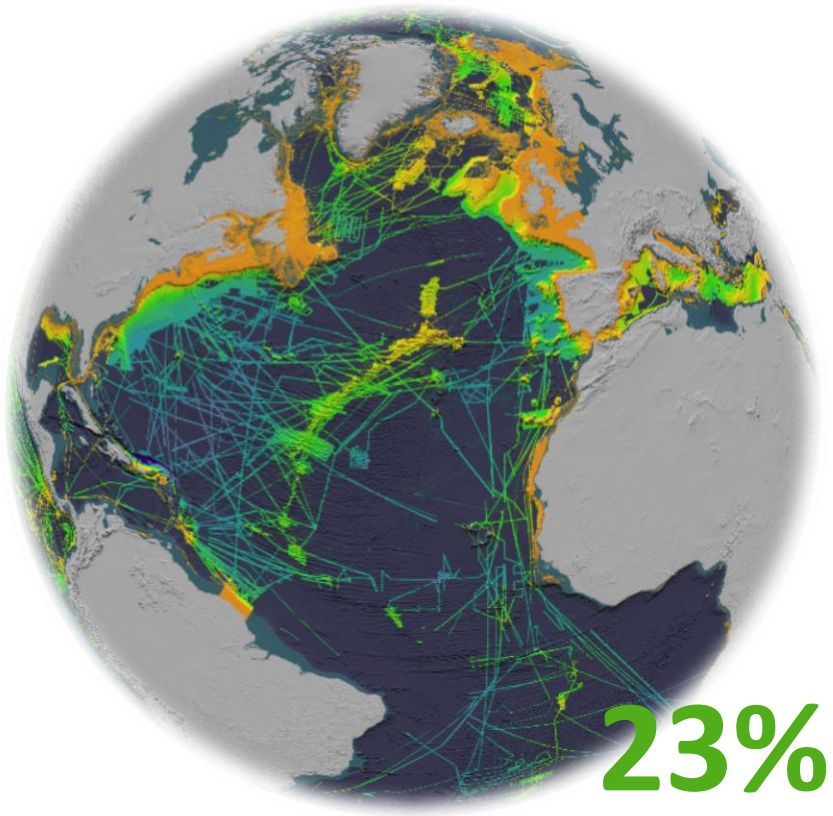
1. **Project background**
2. Mapping in EAtHC
3. How to contribute
4. Actions requested from EAtHC17

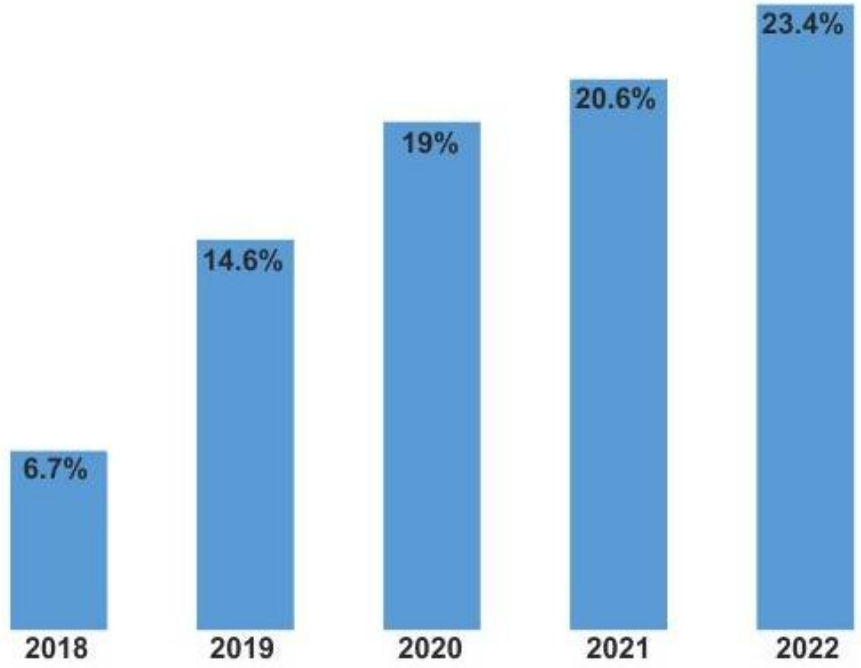


1. Project background

1.1. What is SEABED 2030 Project?

➡ The Nippon Foundation – GEBCO **Seabed 2030** Project is a **collaborative project** to inspire the **complete mapping** of the world's **ocean** by **2030**, and to **compile** all bathymetric data into the **freely-available** GEBCO Ocean Map.

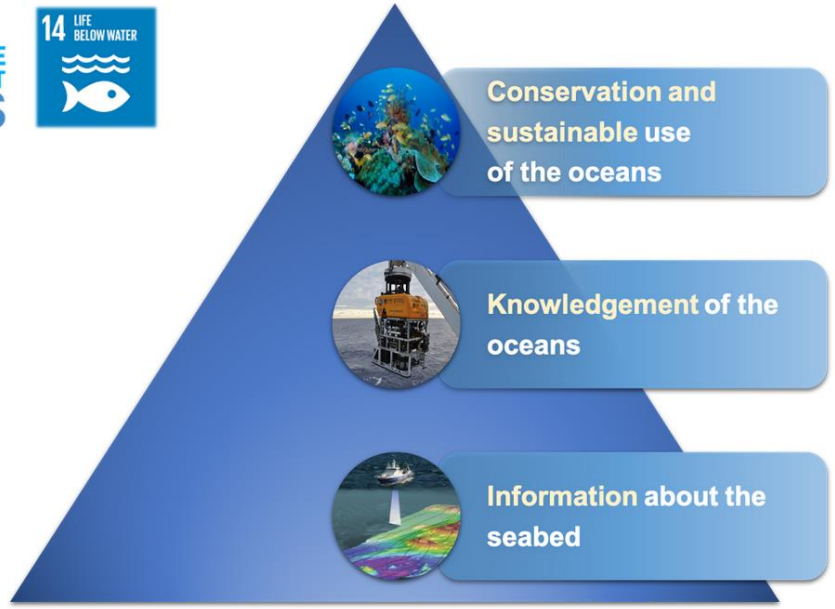




1. Project background

1.2. Why is SEABED 2030 important?

- ➡ Bathymetry data is an **essential** ocean **observation**.
- ➡ Seabed mapping data has **broad use** and **value**.
- ➡ Ocean processes extend **beyond territorial waters**.
- ➡ Only **~23%** of the ocean has been mapped with **direct observation**.
- ➡ Mapping the entire ocean is a **massive task** that can only be achieved through **collaboration**.



1. Project background

1.3. Regional approach

➡ **Regional centers (RDACCs):**

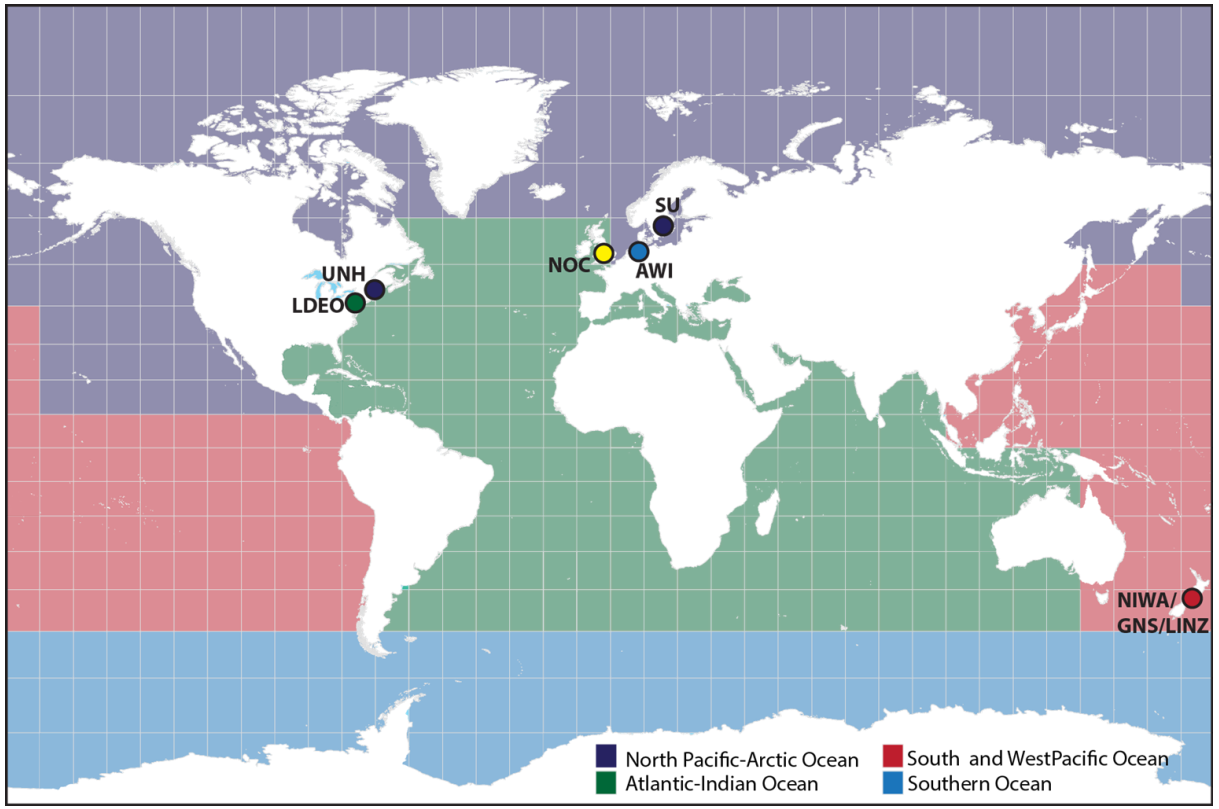
- Engage with stakeholder:
- Build upon existing efforts;
- Assemble regional products;
- Identify gaps.

➡ **Global center (GDACC):**

- Assemble global products;
- Disseminate global products.

➡ **Atlantic/Indian Ocean Regional Center:**

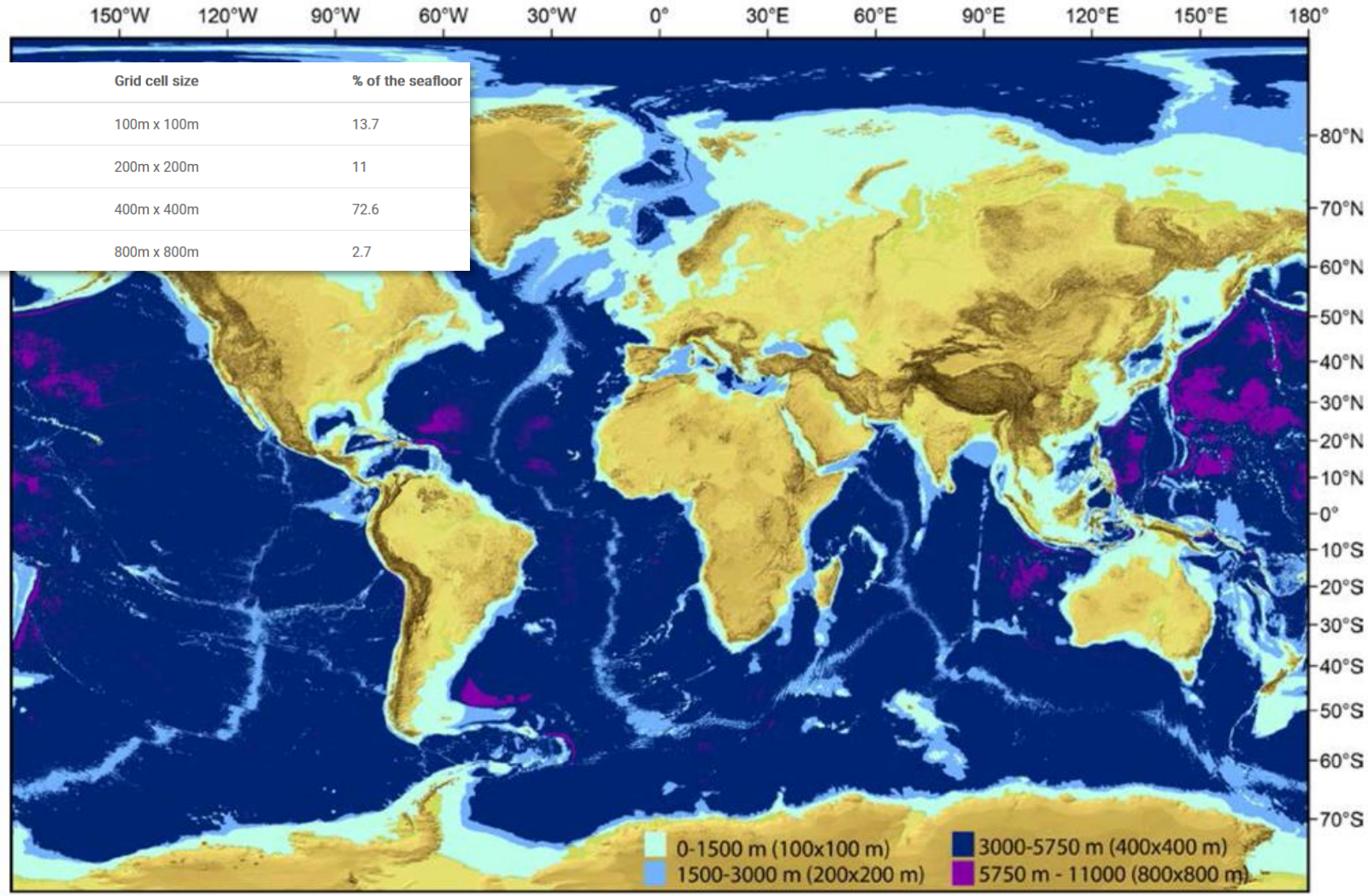
- Dr. Vicki Ferrini (Head)
- Ms. Hayley Drennon;
- Ms. Tinah Martin;
- Mr. John Morton;
- Dr. Frank Nitsche.



1. Project background

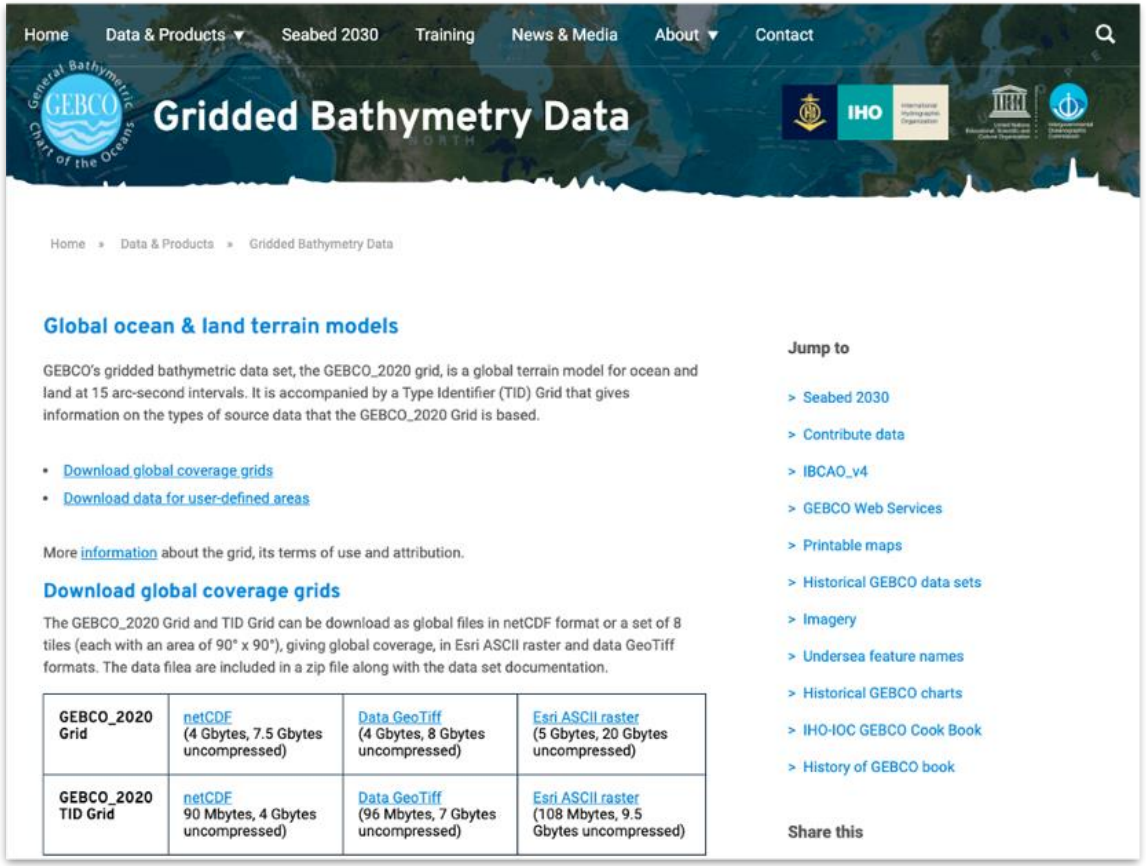
1.4. What mapped means – resolutions

Depth range (m)	Grid cell size	% of the seafloor
0 - 1,500	100m x 100m	13.7
1,500 - 3,000	200m x 200m	11
3,000 - 5,750	400m x 400m	72.6
5,750 - 11,000	800m x 800m	2.7



1. Project background

1.5. Access the GEBCO grid



Home | Data & Products ▾ | Seabed 2030 | Training | News & Media | About ▾ | Contact

General Bathymetric Chart of the Oceans GEBCO

Gridded Bathymetry Data

Home » Data & Products » Gridded Bathymetry Data

Global ocean & land terrain models

GEBCO's gridded bathymetric data set, the GEBCO_2020 grid, is a global terrain model for ocean and land at 15 arc-second intervals. It is accompanied by a Type Identifier (TID) Grid that gives information on the types of source data that the GEBCO_2020 Grid is based.

- Download global coverage grids
- Download data for user-defined areas

More information about the grid, its terms of use and attribution.

Download global coverage grids

The GEBCO_2020 Grid and TID Grid can be download as global files in netCDF format or a set of 8 tiles (each with an area of 90° x 90°), giving global coverage, in Esri ASCII raster and data GeoTiff formats. The data filea are included in a zip file along with the data set documentation.

GEBCO_2020 Grid	netCDF (4 Gbytes, 7.5 Gbytes uncompressed)	Data GeoTiff (4 Gbytes, 8 Gbytes uncompressed)	Esri ASCII raster (5 Gbytes, 20 Gbytes uncompressed)
GEBCO_2020 TID Grid	netCDF 90 Mbytes, 4 Gbytes uncompressed)	Data GeoTiff (96 Mbytes, 7 Gbytes uncompressed)	Esri ASCII raster (108 Mbytes, 9.5 Gbytes uncompressed)

Jump to

- Seabed 2030
- Contribute data
- IBCAO_v4
- GEBCO Web Services
- Printable maps
- Historical GEBCO data sets
- Imagery
- Undersea feature names
- Historical GEBCO charts
- IHO-IOC GEBCO Cook Book
- History of GEBCO book

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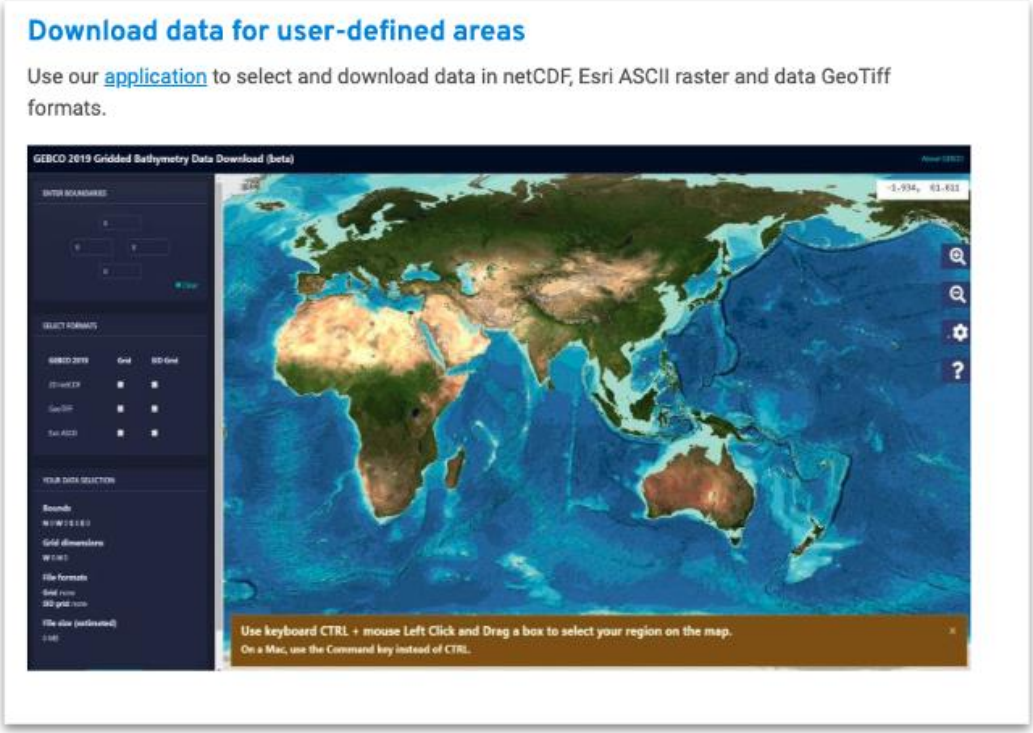

Download data for user-defined areas

Use our application to select and download data in netCDF, Esri ASCII raster and data GeoTiff formats.

GEBCO 2019 Gridded Bathymetry Data Download (beta)

Use keyboard CTRL + mouse Left Click and Drag a box to select your region on the map.
On a Mac, use the Command key instead of CTRL.

https://www.gebco.net/data_and_products/gridded_bathymetry_data

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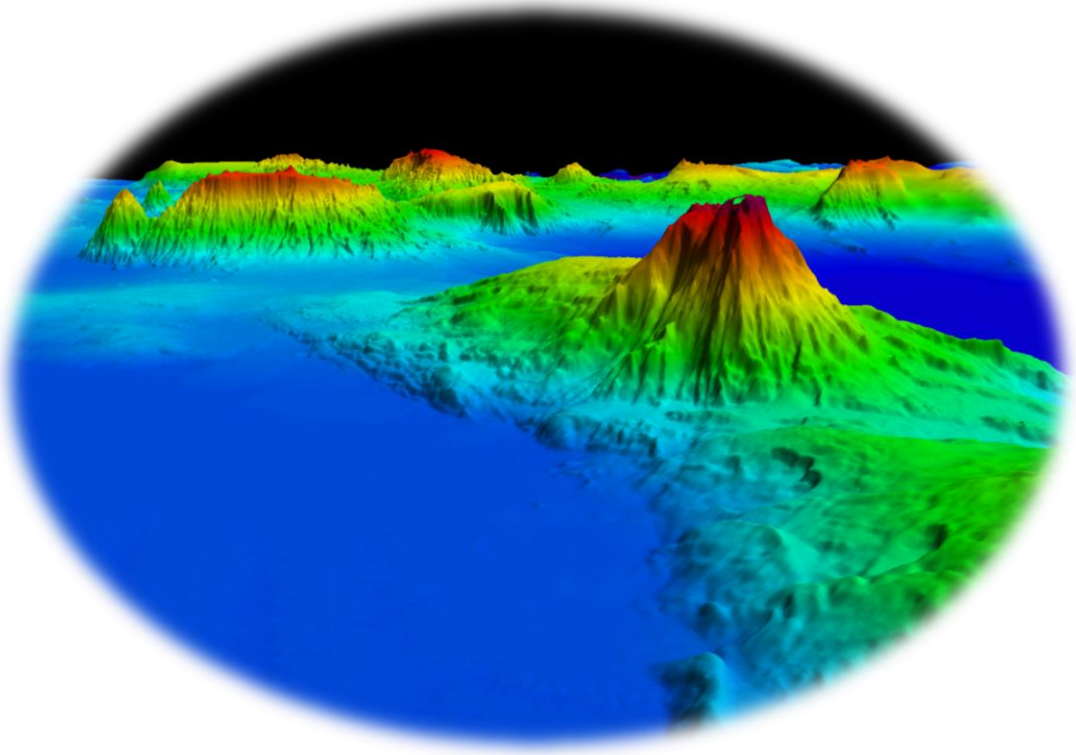
4. Actions requested from EAtHC17



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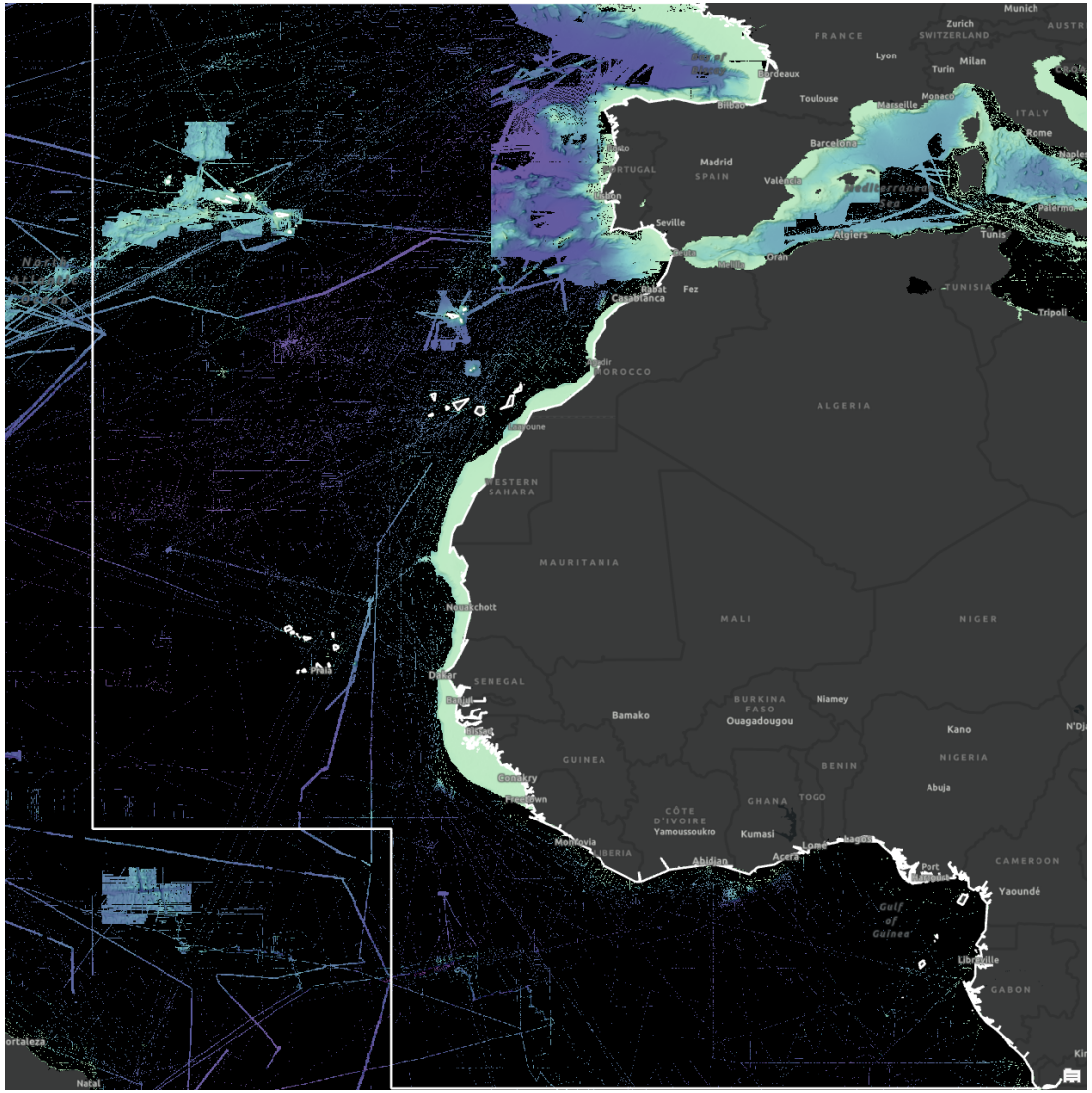
2. Mapping in EAtHC

2.1. GEBCO evolution – 2014



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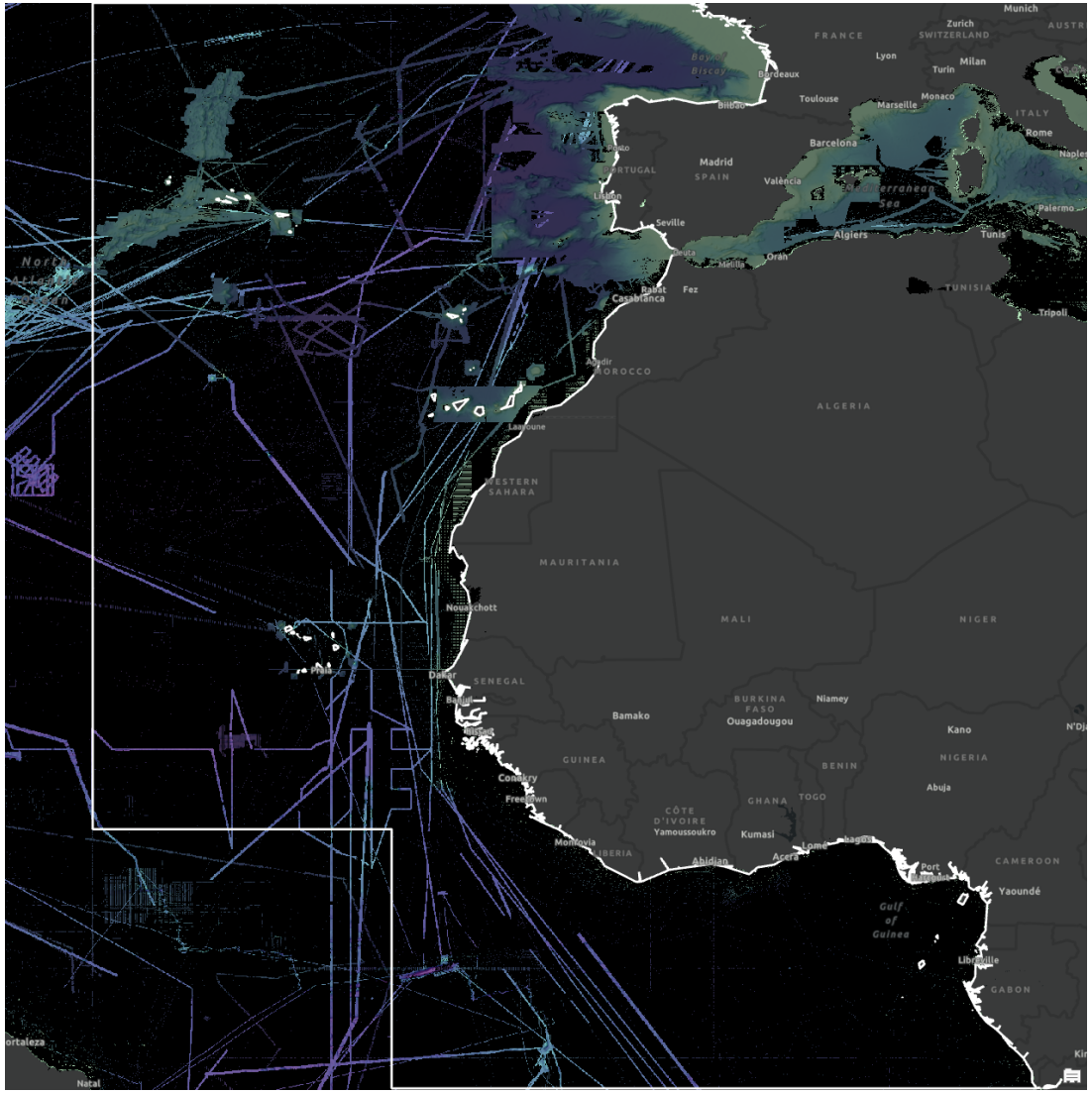
2. Mapping in EAtHC

2.2. GEBCO evolution – 2019



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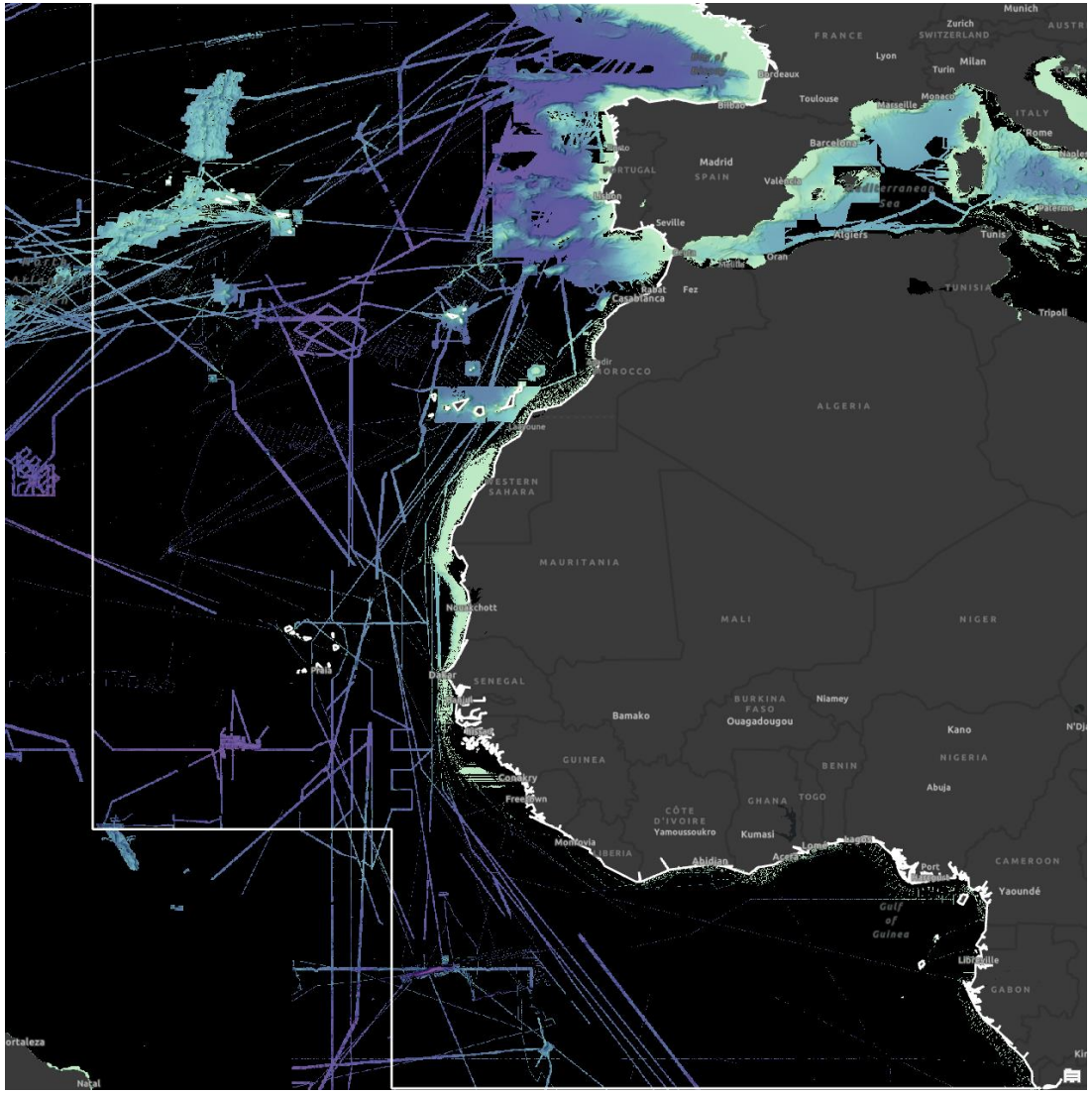
2. Mapping in EAtHC

2.3. GEBCO evolution – 2020



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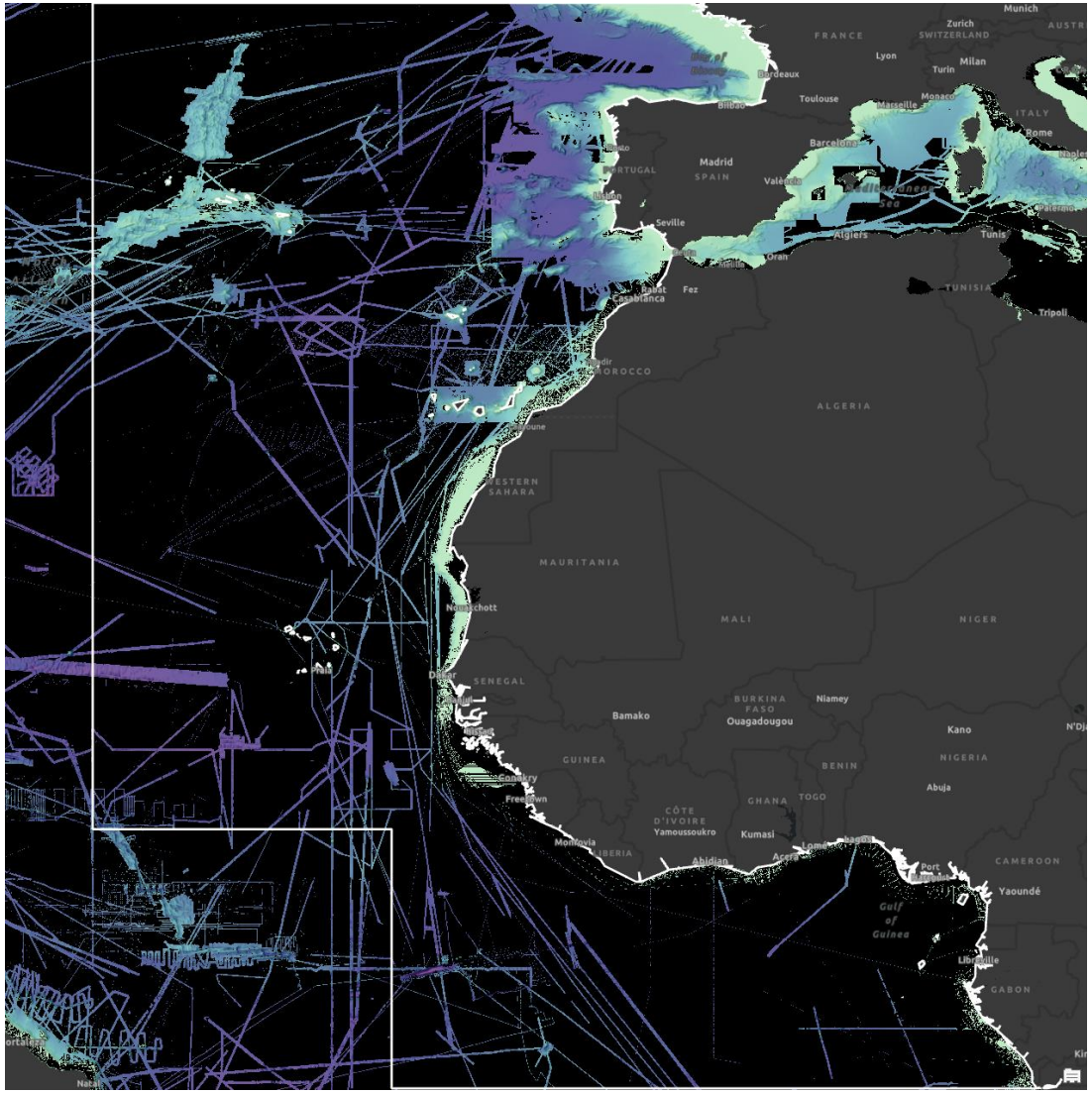
2. Mapping in EAtHC

2.4. GEBCO evolution – 2021



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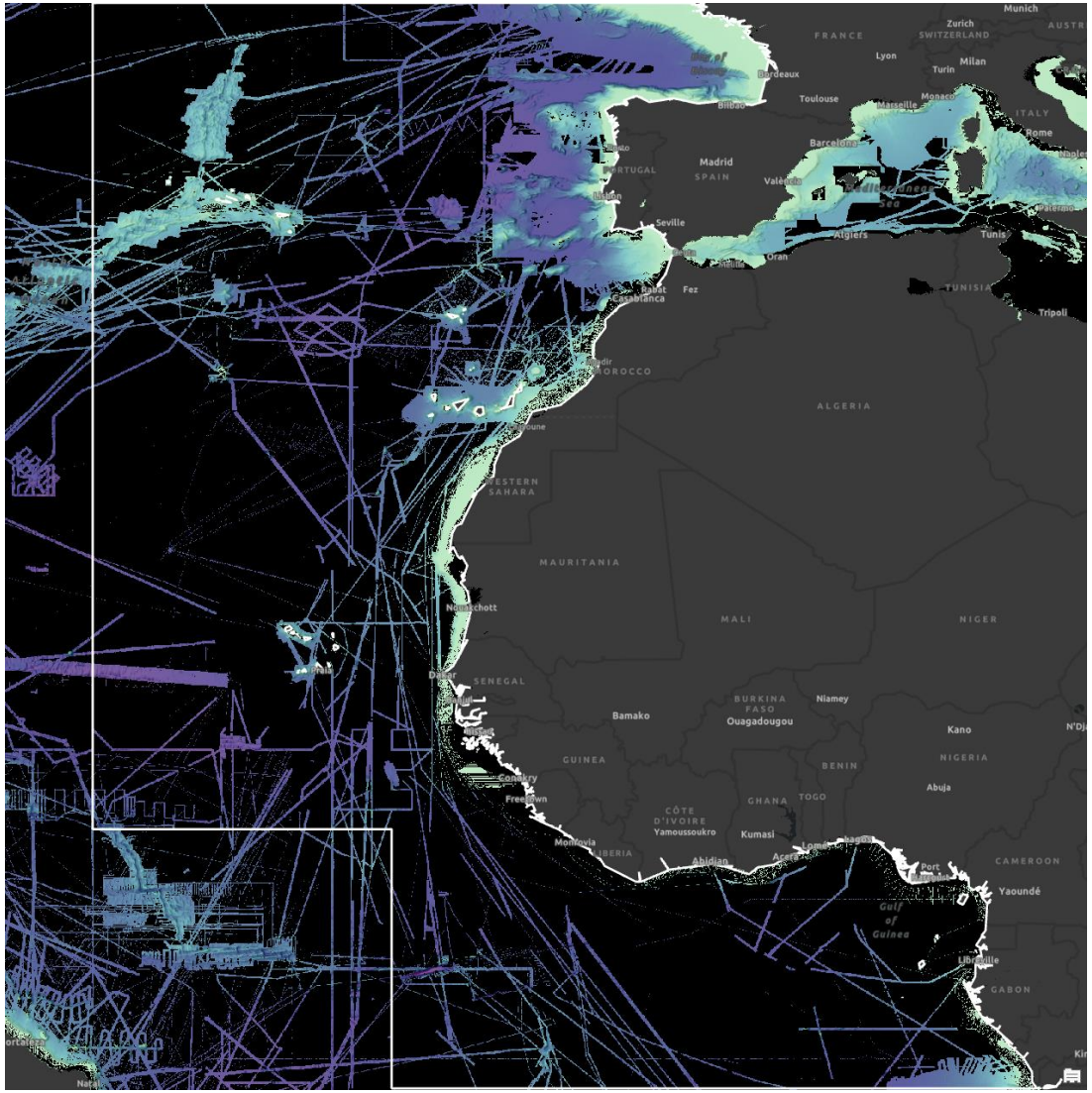
2. Mapping in EAtHC

2.5. GEBCO evolution – 2022



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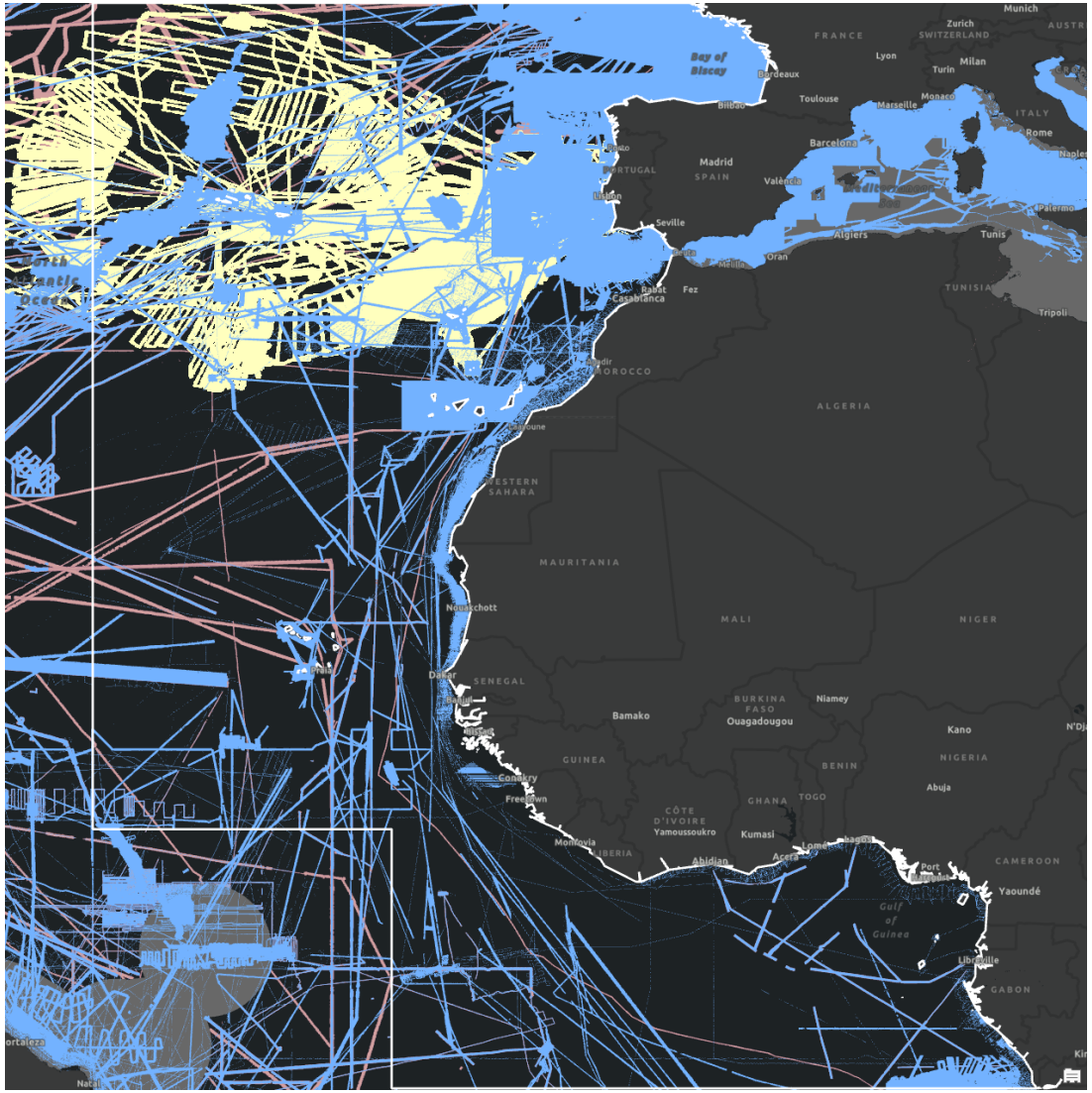
2. Mapping in EAtHC

2.6. GEBCO evolution – 2022 (plus newly contributed data)



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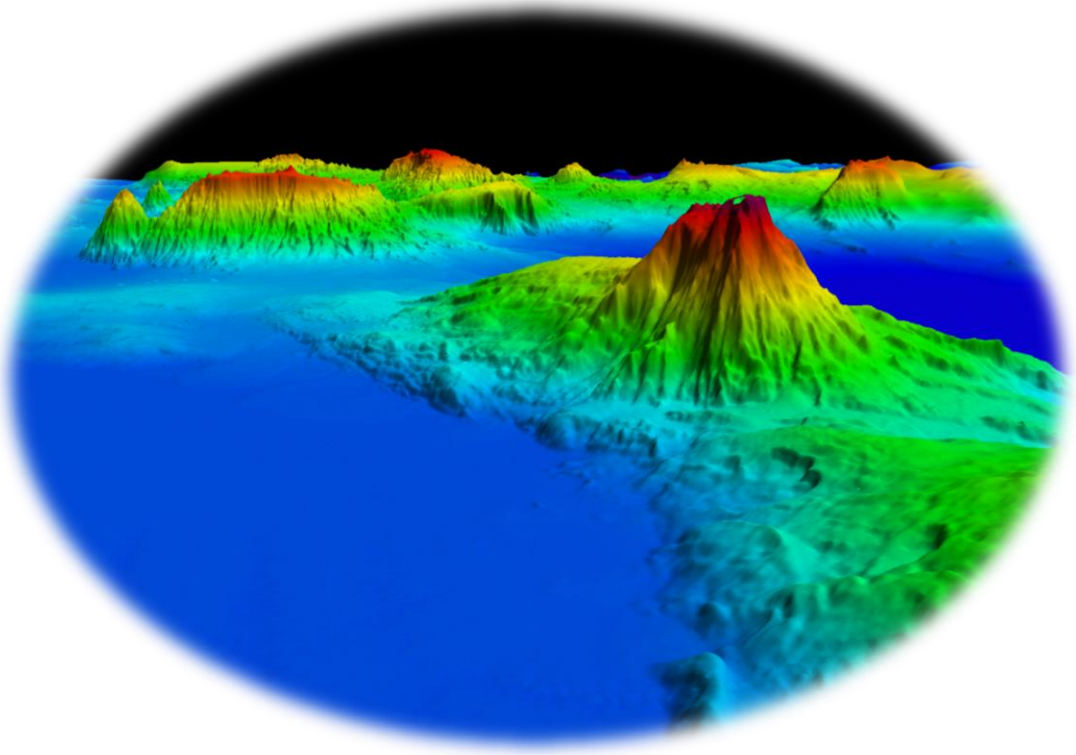
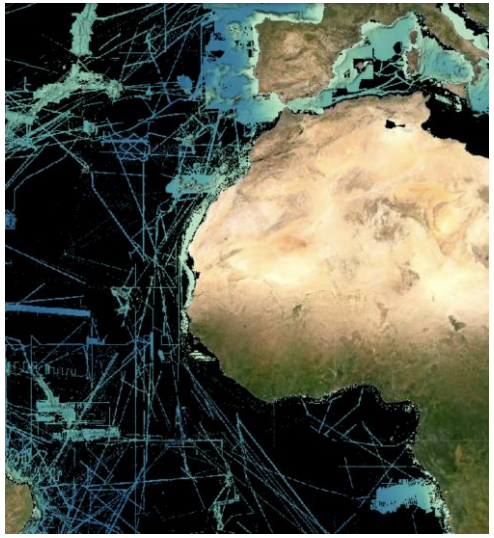


3. How to contribute

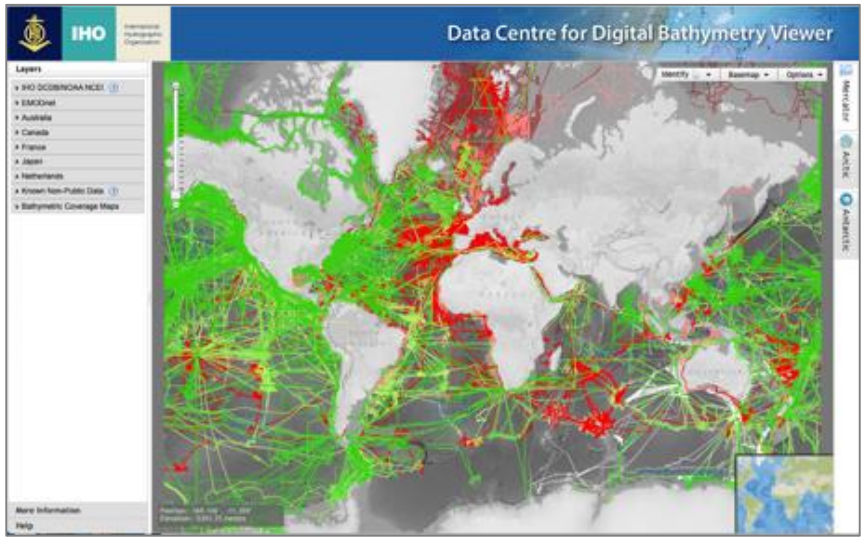
3.1. Identify sources of bathymetry

➡ **How much in the region has been mapped?**



GEBCO 2022 coverage
2020: 18% mapped
2021: 20% mapped
2022: 23% mapped

+



Known existing data
not yet shared and/or
not yet integrated

+ ?

Unknown
existing data
not yet shared

3. How to contribute

3.2. Contribute with data

Home » About » Contributing data

How to contribute data

Please use the form below to make contributions of multibeam and/ or single-beam survey data, individual soundings or existing grids to help update our gridded data sets and products. If you have any problems in completing the form, then please email this information to the Global Center (gdacc@seabed2030.org). Watch a short video on how to contribute data.

GEBCO releases a new global grid every year, generally in late June. Find out more about the grid generation process.

We value all data sets contributed to help us map the seafloor and will make every effort to include them in the next grid release. However, **please note that any new contributions received after January may not be included in this year's grid but will be considered for future releases.**

Jump to

> Our data contributors

> Join the Crowdsourced Bathymetry initative

Share this

GEBCO Data Contribution Form

GEBCO's aim is to provide the most authoritative, publicly-available bathymetry of the world's oceans. It operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) (of UNESCO). GEBCO is continually working to improve its data products and gratefully acknowledges all data contributions to help map the gaps.

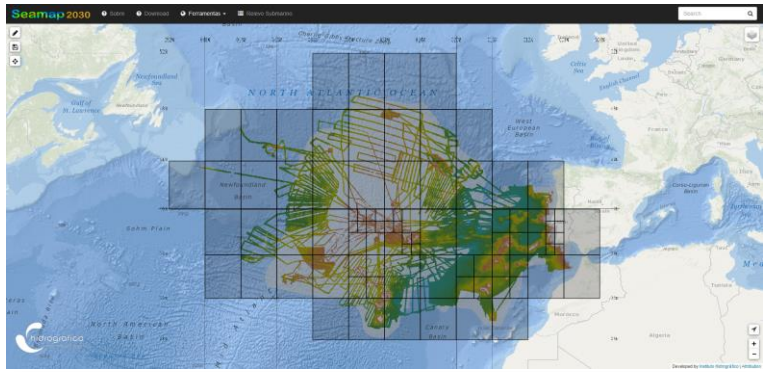
Seabed 2030 is a collaborative project between The Nippon Foundation and GEBCO to inspire the complete mapping of the world's ocean by 2030 and to compile all bathymetric data into the freely-available GEBCO Ocean Map.

PRIVACY NOTICE:
Your email contact will only be used by the GEBCO and the Seabed 2030 Team to contact you about the data sets of which you have made us aware. We will take all reasonable precautions to protect your personal data from loss, misuse, or alteration. We will not forward or sell on your email contact to 3rd parties.

https://www.gebco.net/about_us/contributing_data

3. How to contribute

3.3. Develop your data infrastructure

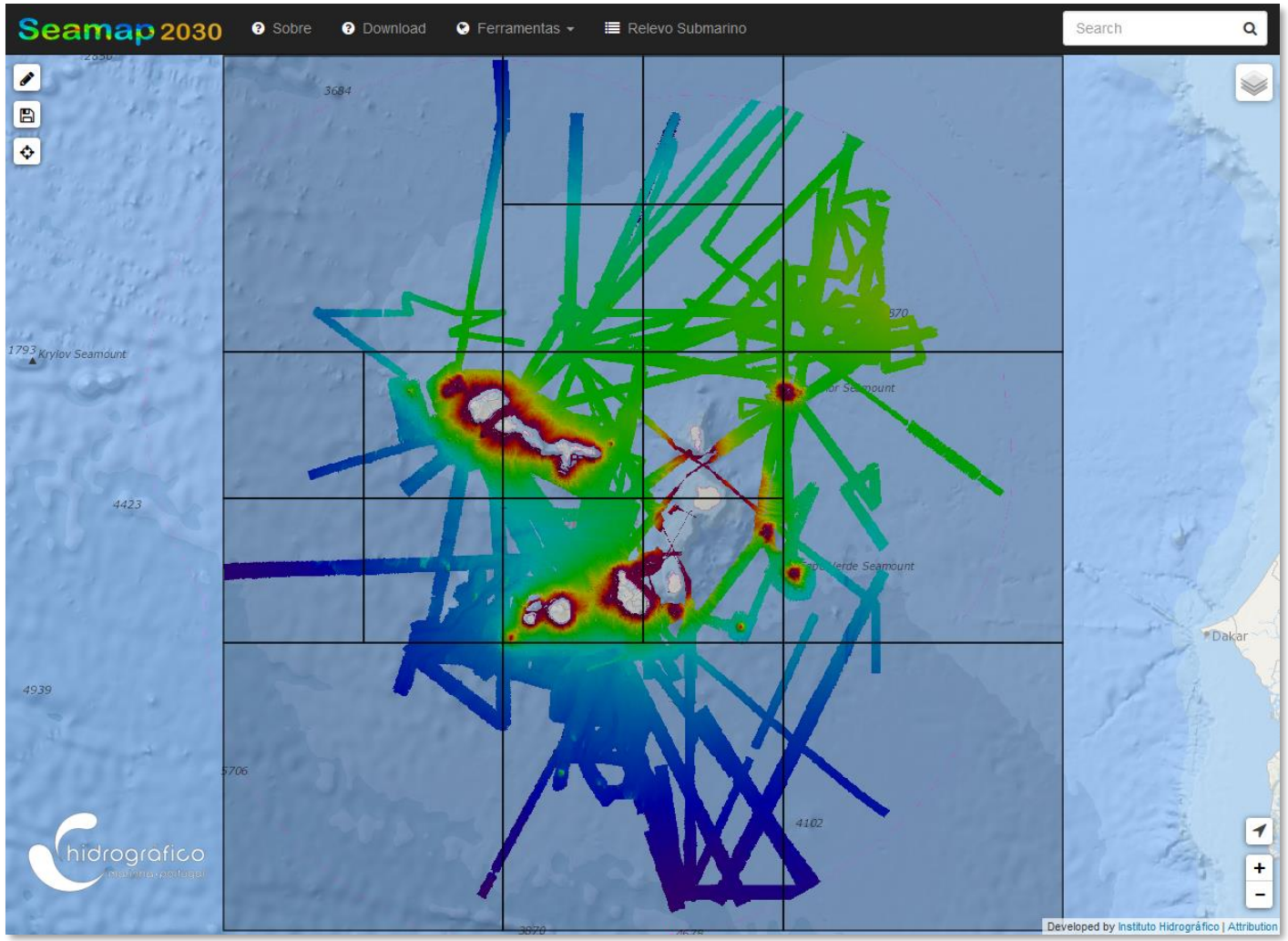


https://gridmar.hidrografico.pt

RESOLUTION(S)

Depth 50m-250m – Res. 32m
Depth 250m-1000m – Res. 64m
Depth 1000m-2000m – Res. 128m
Depth 2000m-4000m – Res. 256m
Depth +4000m – Res. 512m

https://gridmarcv.hidrografico.pt



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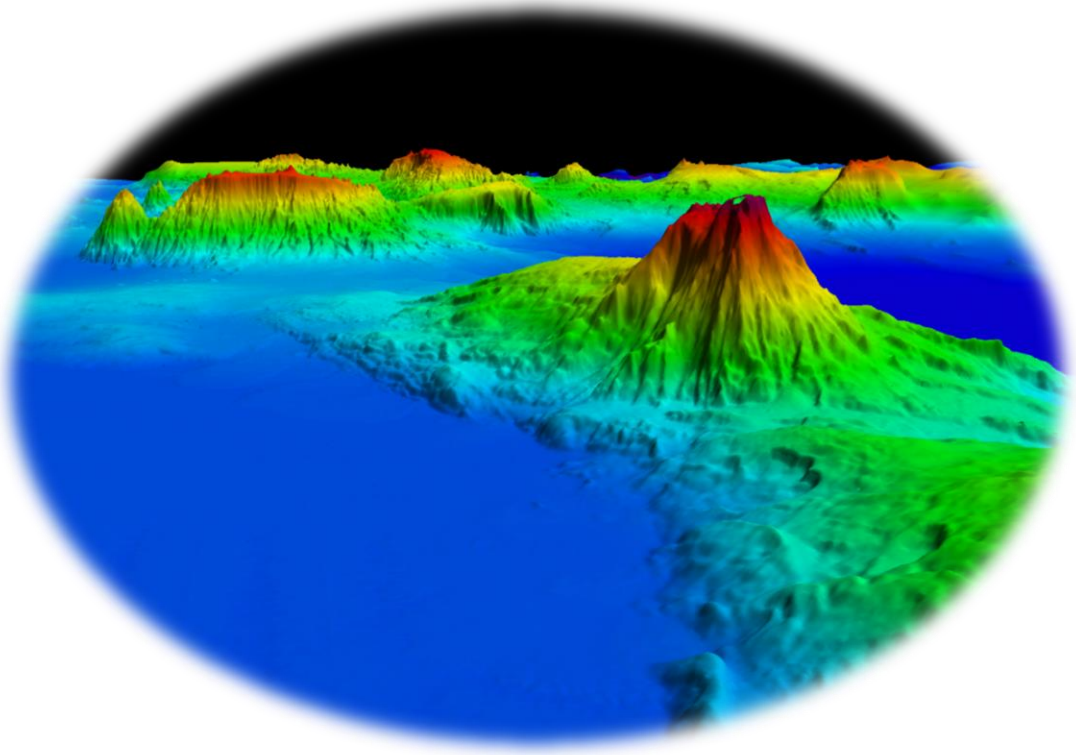

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4. Actions requested from EAtHC17

➡ **EAtHC is invited to:**

1. Take note of the presentation.

2. Actions related with SEABED 2030 will be addressed in MSDI presentation.

Thank you for your attention