



Intergovernmental  
Oceanographic  
Commission

# **GEBCO Digital Atlas Manager's report**

**Pauline Weatherall, GEBCO Digital Atlas Manager  
British Oceanographic Data Centre (BODC)**

**Joint IHO-IOC Guiding Committee for GEBCO, Monaco,  
June 2014**



**British Oceanographic  
Data Centre**

NATURAL ENVIRONMENT RESEARCH COUNCIL



# **GDA Manager's report June 2014**

- Status of GEBCO's global 30 arc-second interval grid
- GEBCO's data set and products – access statistics
- GEBCO's web site – access statistics

## **Status of GEBCO's global 30 arc second grid**

At last year's TSCOM/SCRUM meetings it was decided to delay publication of the new GEBCO grid in order to include the following:

- EMODnet (European waters) – ([www.emodnet-hydrography.eu](http://www.emodnet-hydrography.eu))
- Baltic Sea Bathymetry Database (<http://data.bshc.pro>)
- Grid for part of the North-western Pacific region (from JHOD)

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The work on adding in these data sets is now complete

# **Status of GEBCO's global 30 arc second grid**

Currently working on:

- merging in additional multibeam data sets
- Correcting erroneous 'spikes' and 'holes'

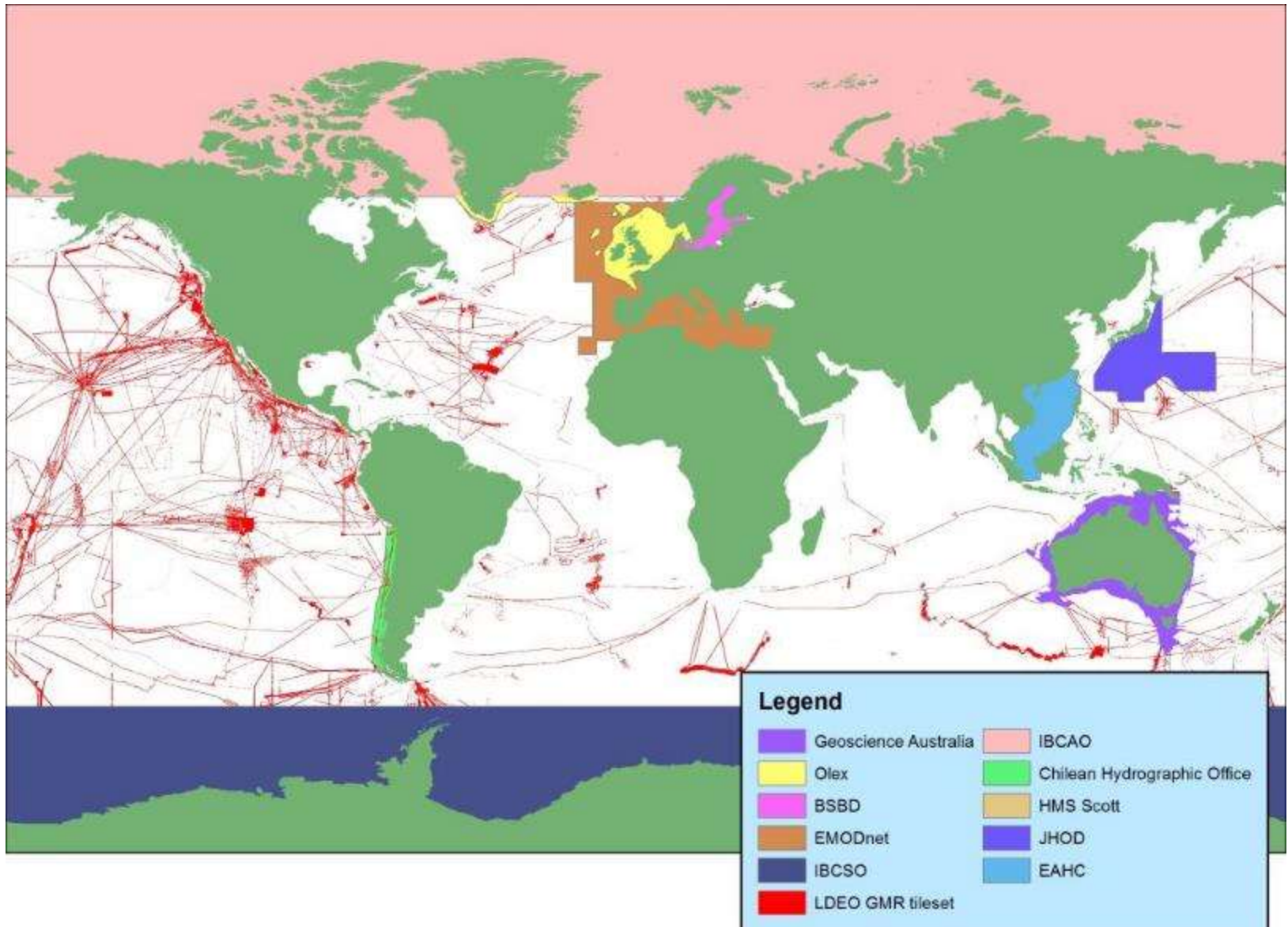
# Status of GEBCO's global 30 arc second grid

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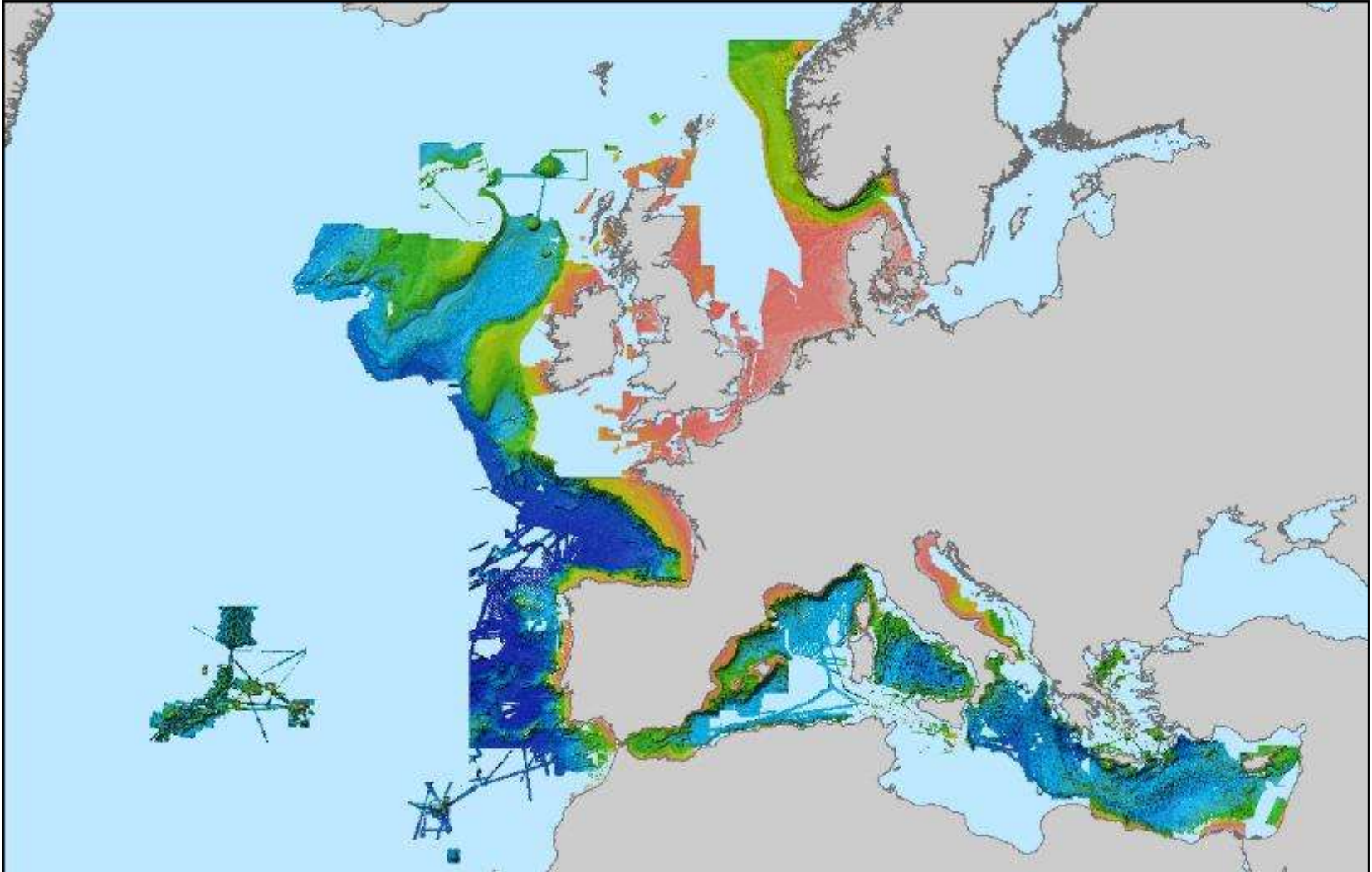
- merging in additional multibeam data sets
- Correcting erroneous 'spikes' and 'holes'

The aim is to make the grid available for review in August for publication in September 2014

# Coverage of some of the new data sets for GEBCO\_2014



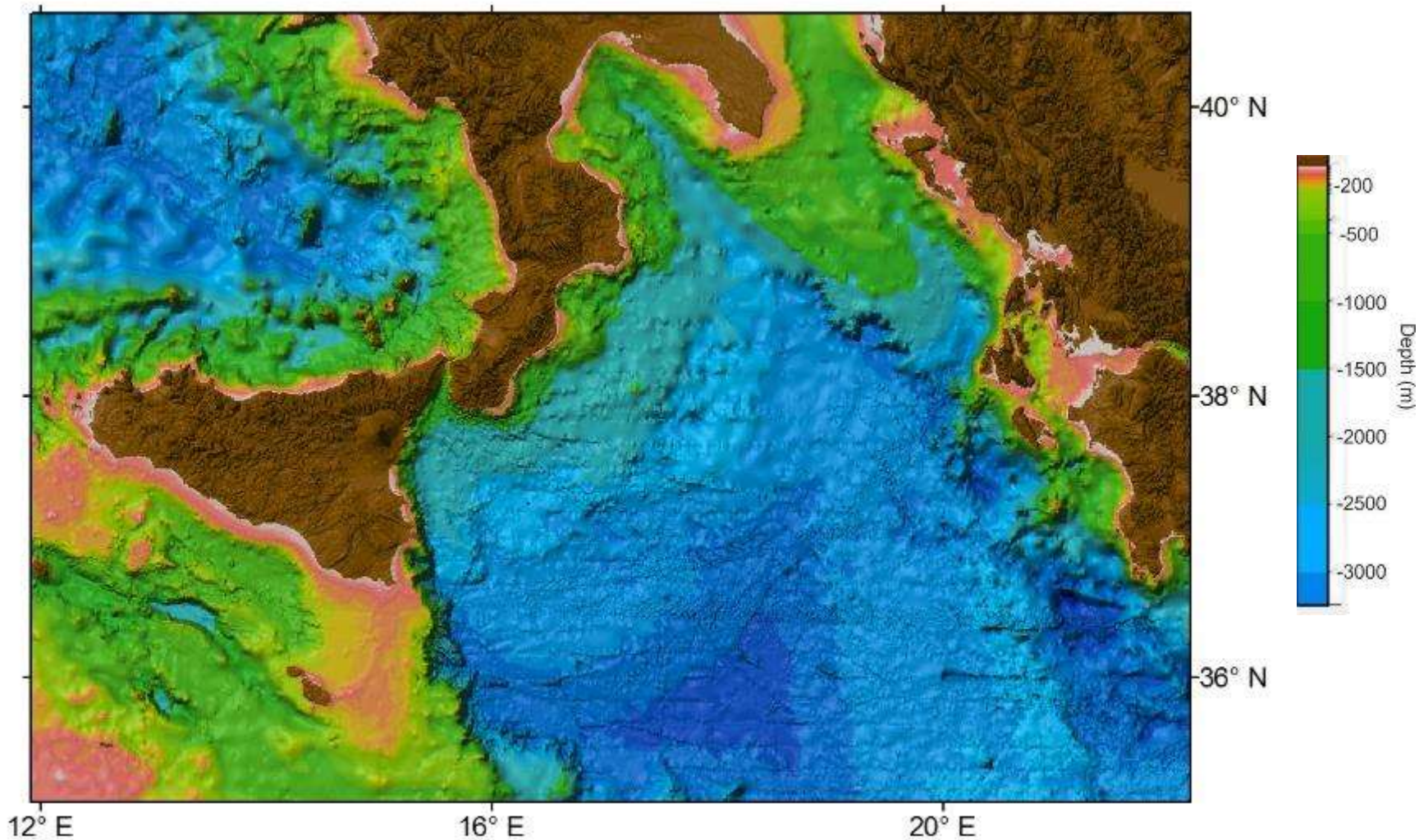
## EMODnet – GEBCO grid merging work



Coverage of EMODnet gridded submitted for inclusion into the GEBCO grid

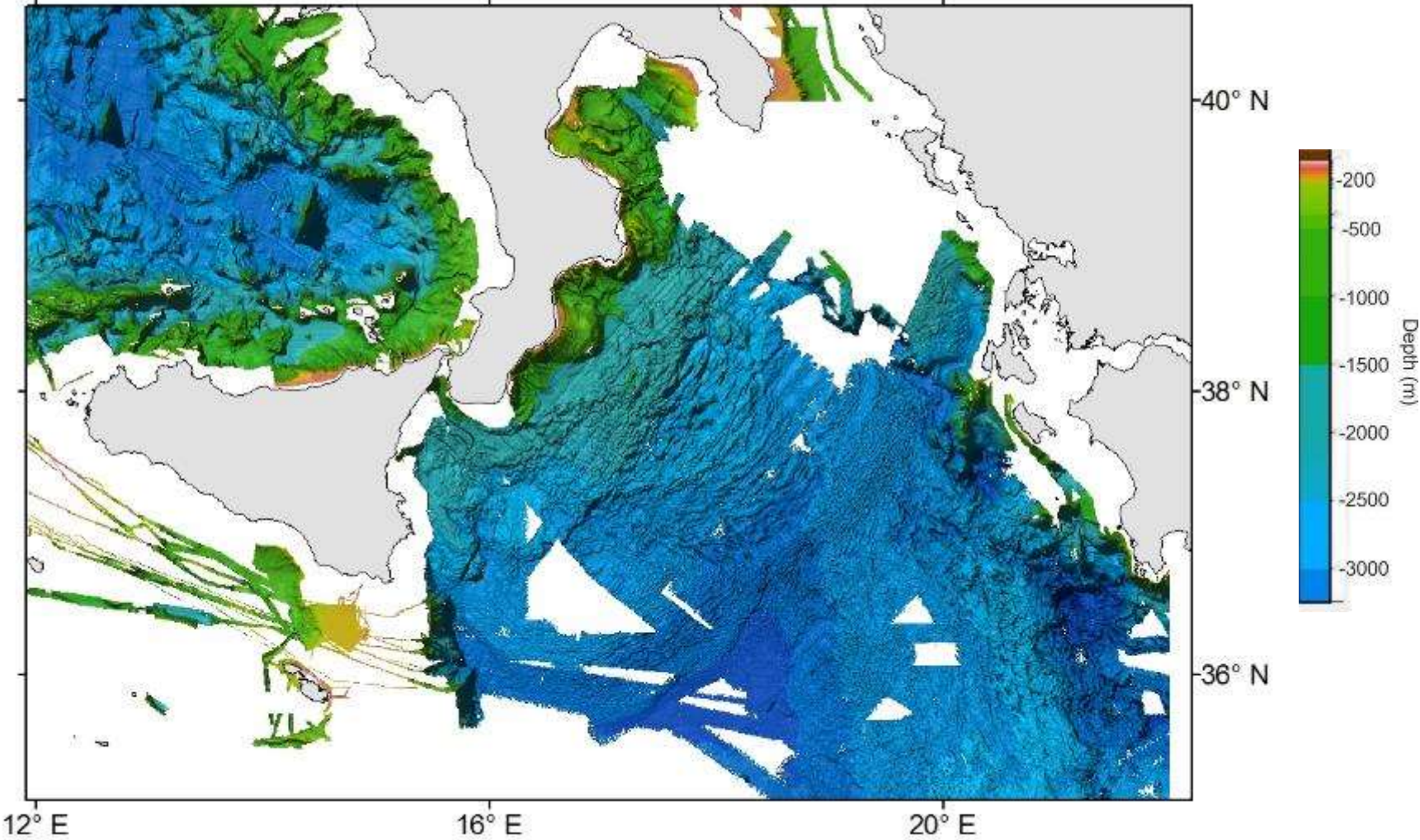


# EMODnet-GEBCO merging work



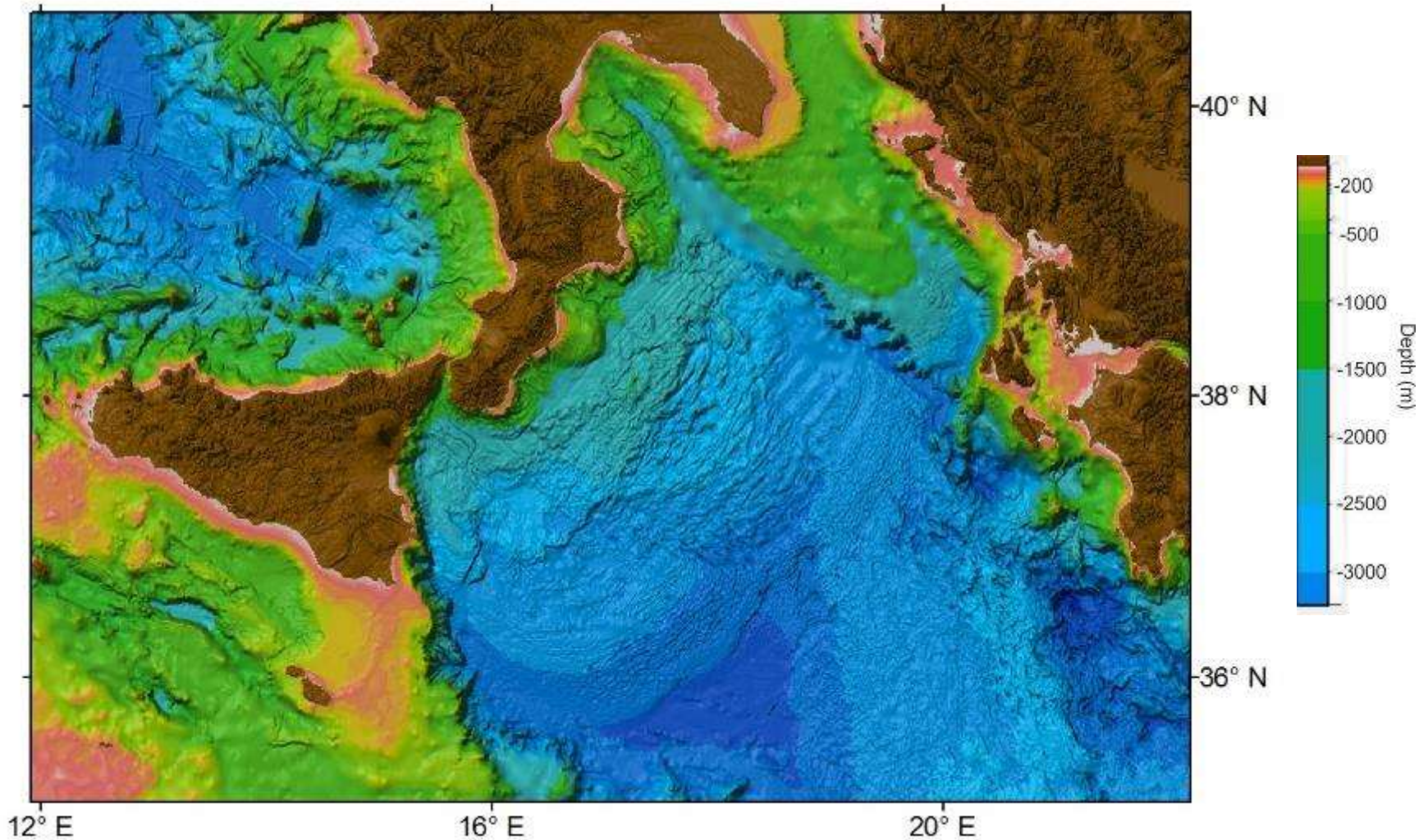
GEBCO\_08 grid

# EMODnet-GEBCO merging work



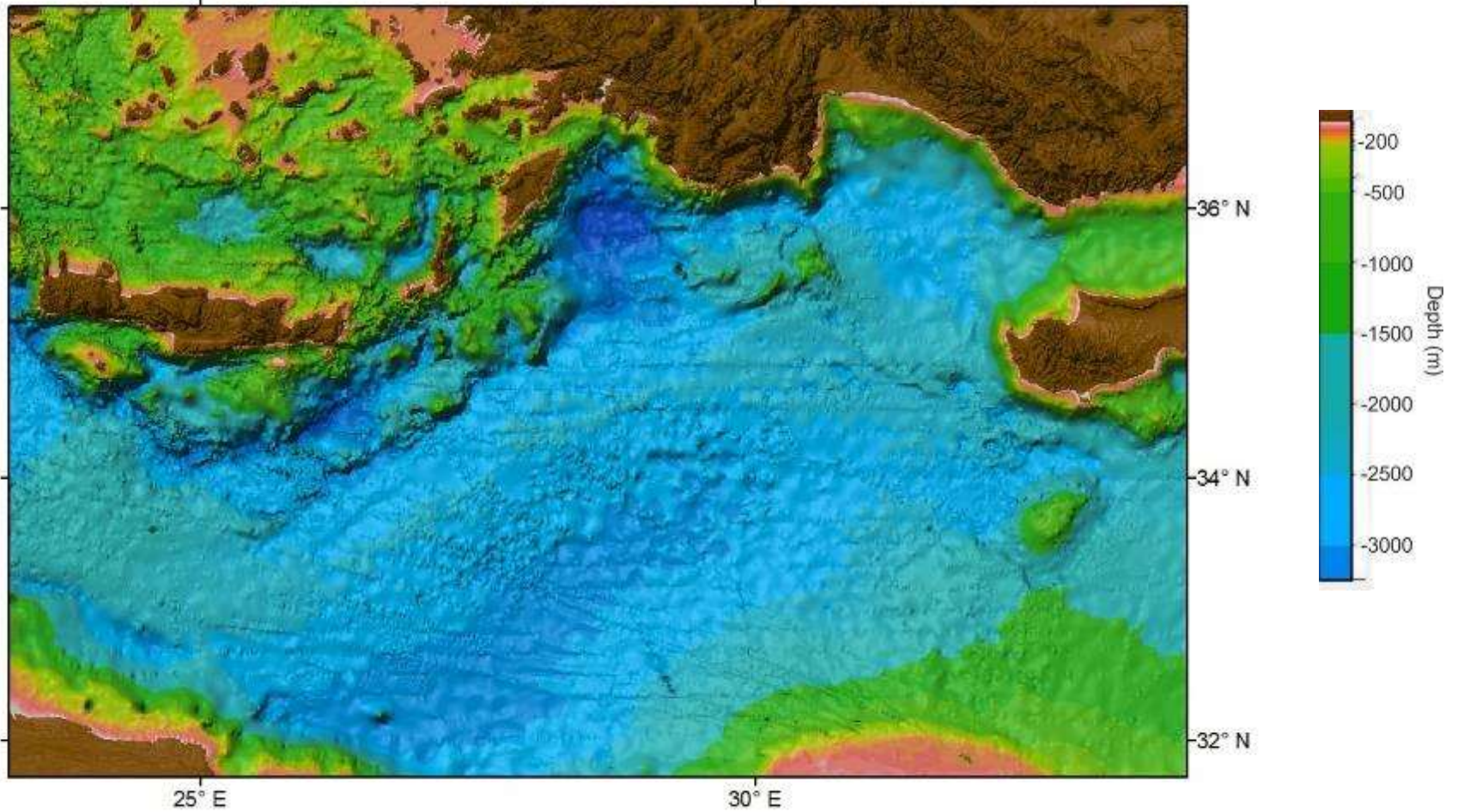
EMODnet grid

# EMODnet-GEBCO merging work



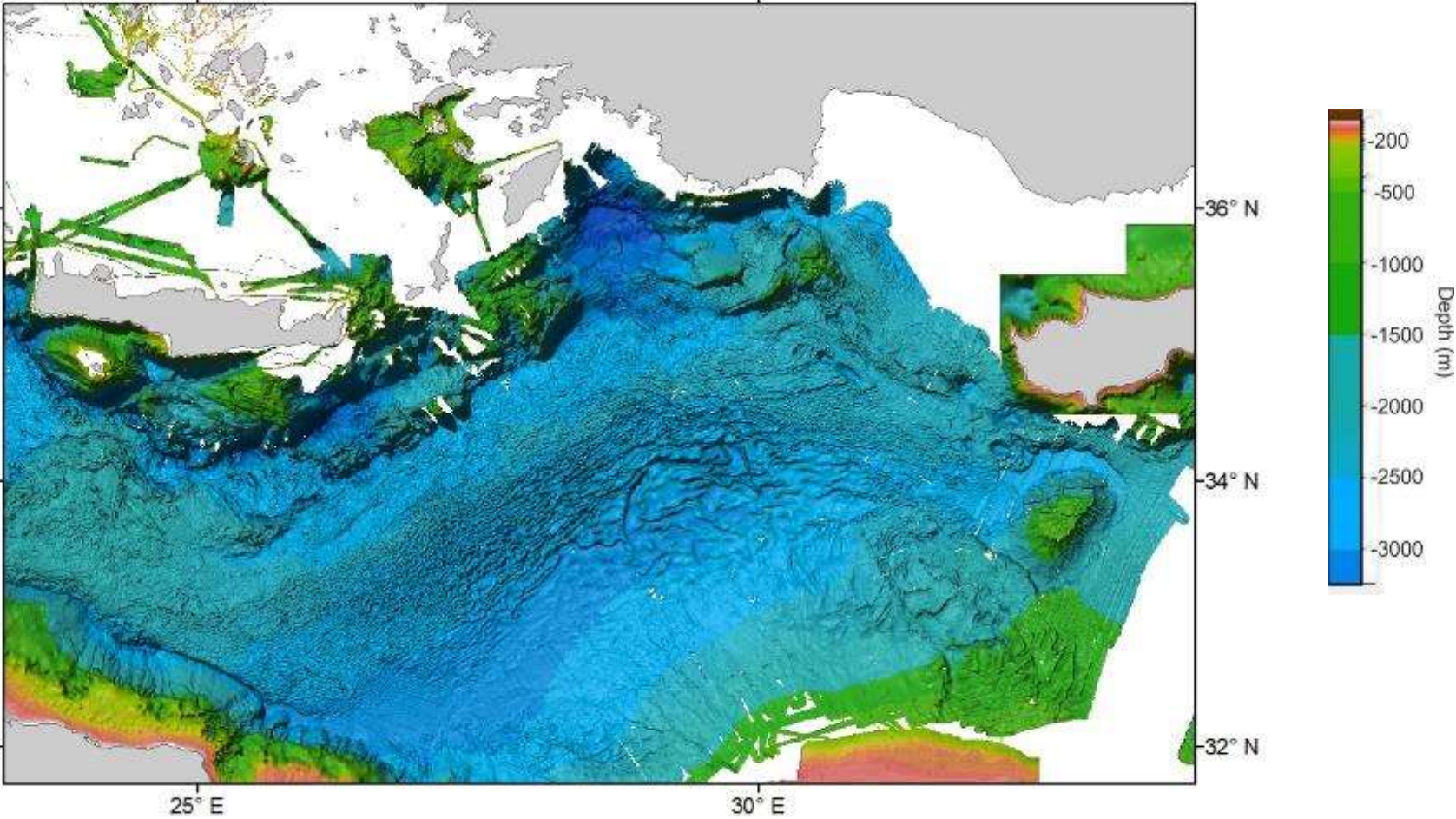
Merged GEBCO and EMODnet grids

# EMODnet-GEBCO merging work



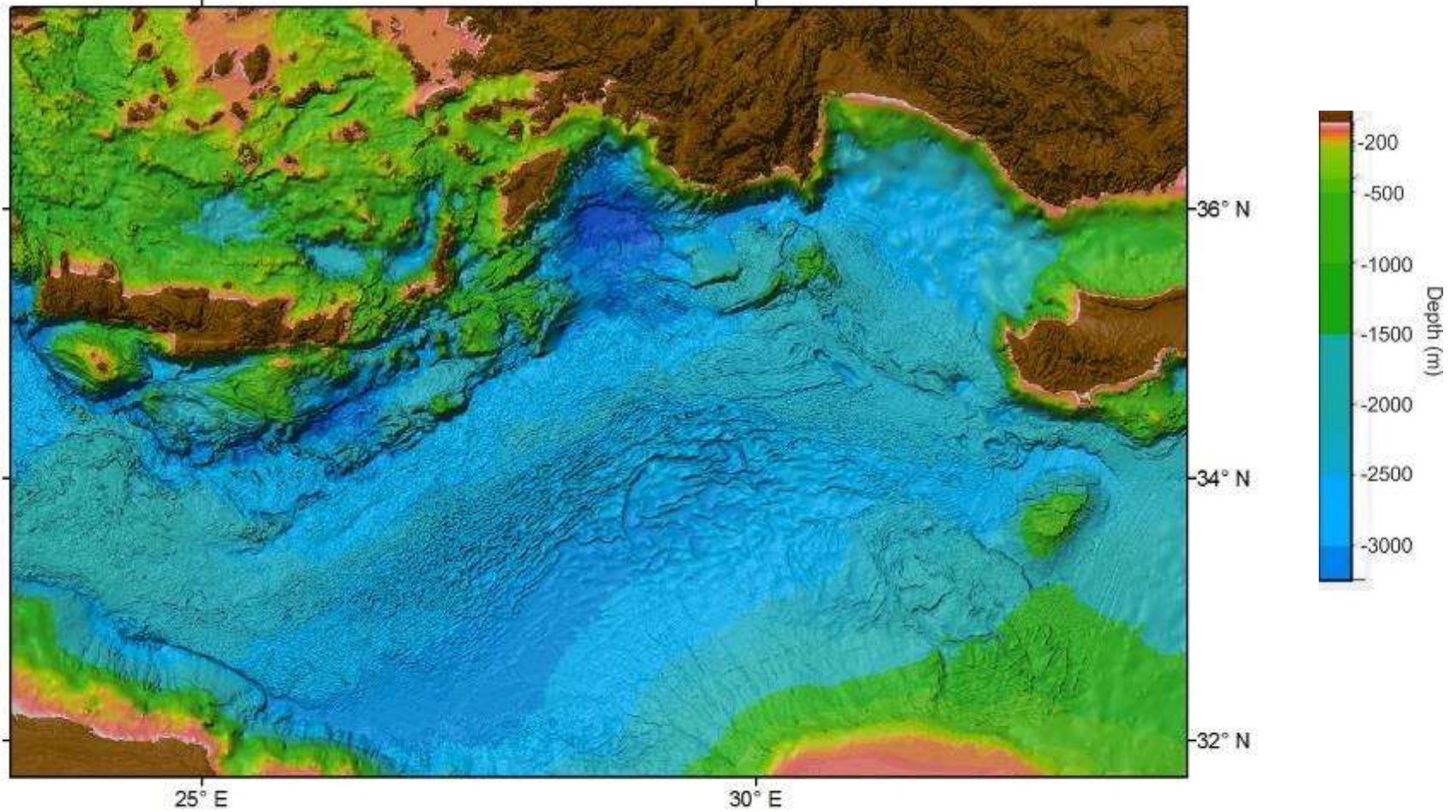
GEBCO\_08 grid

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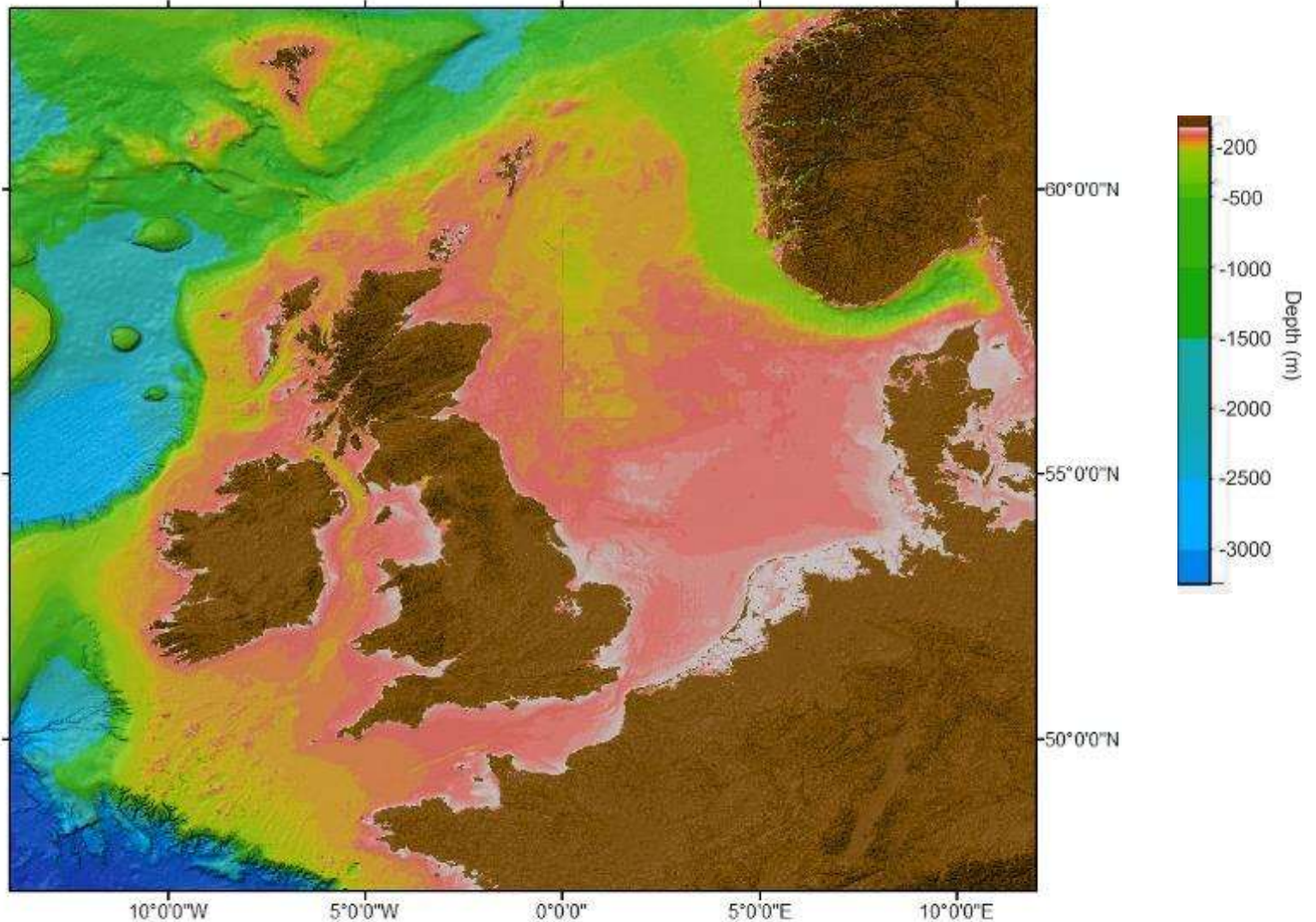
EMODnet

# EMODnet-GEBCO merging work

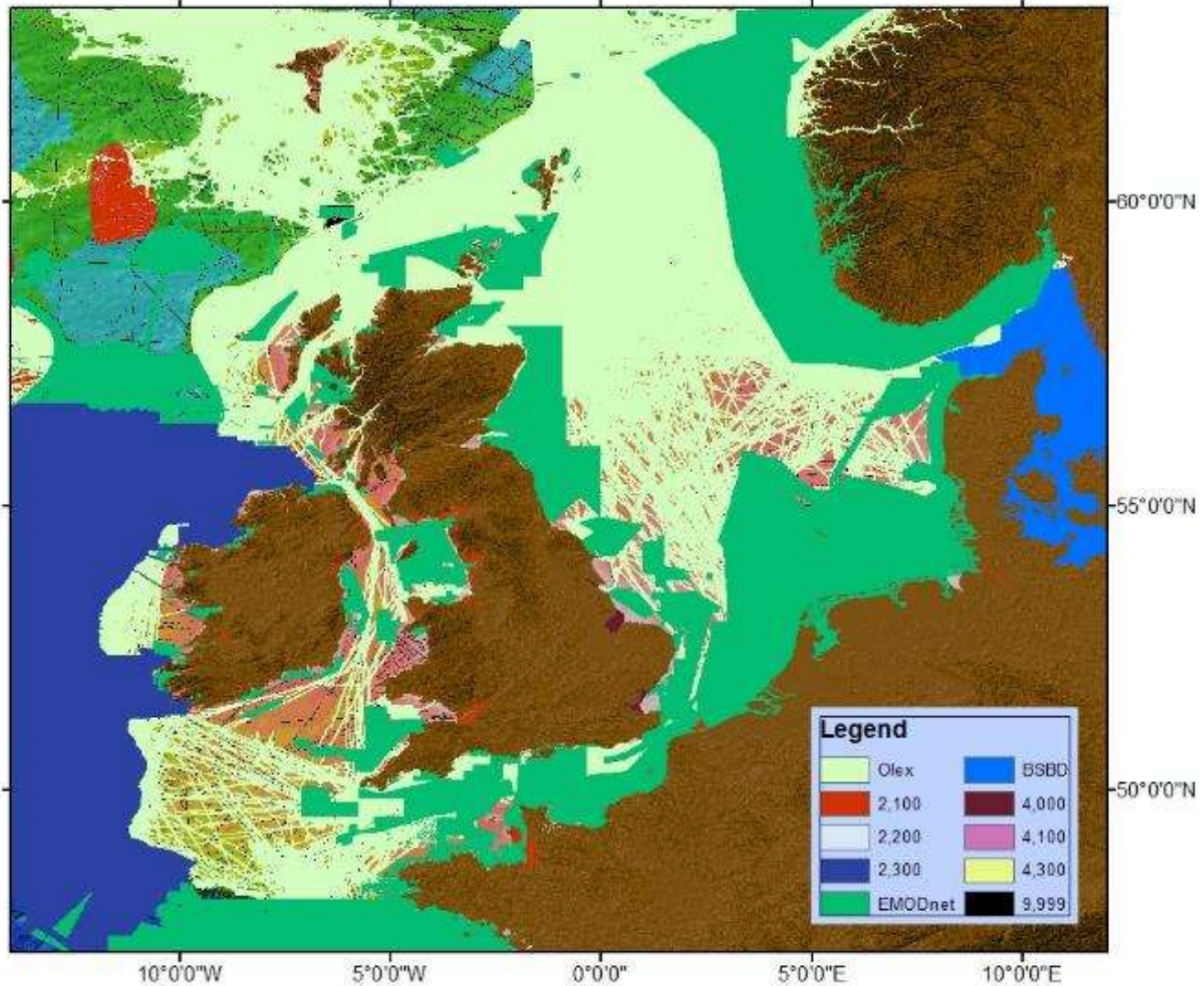


Combined GEBCO-EMODnet Grid

# Existing GEBCO grid off NW Europe

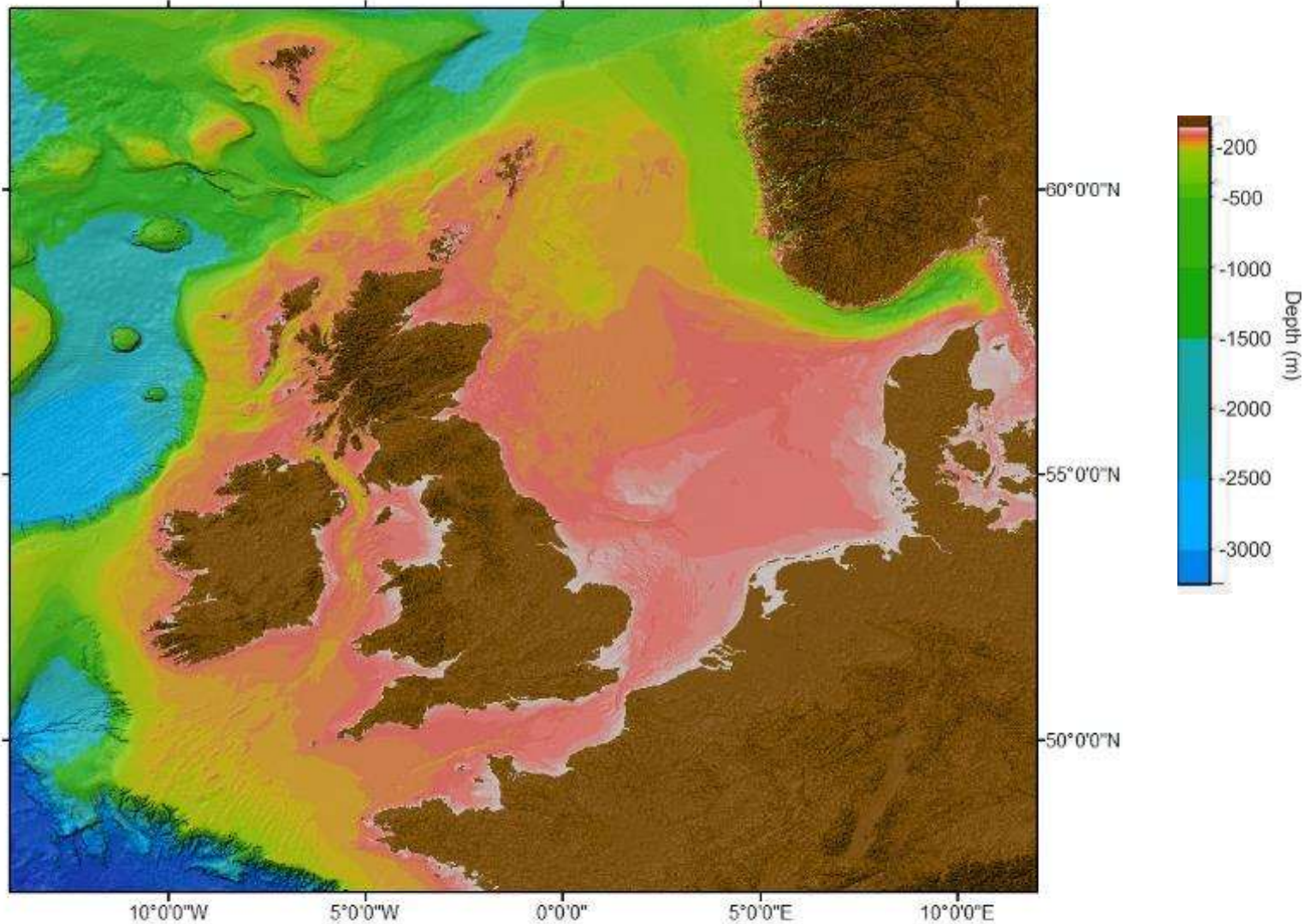


# Updated GEBCO grid off NW Europe – source data coverage

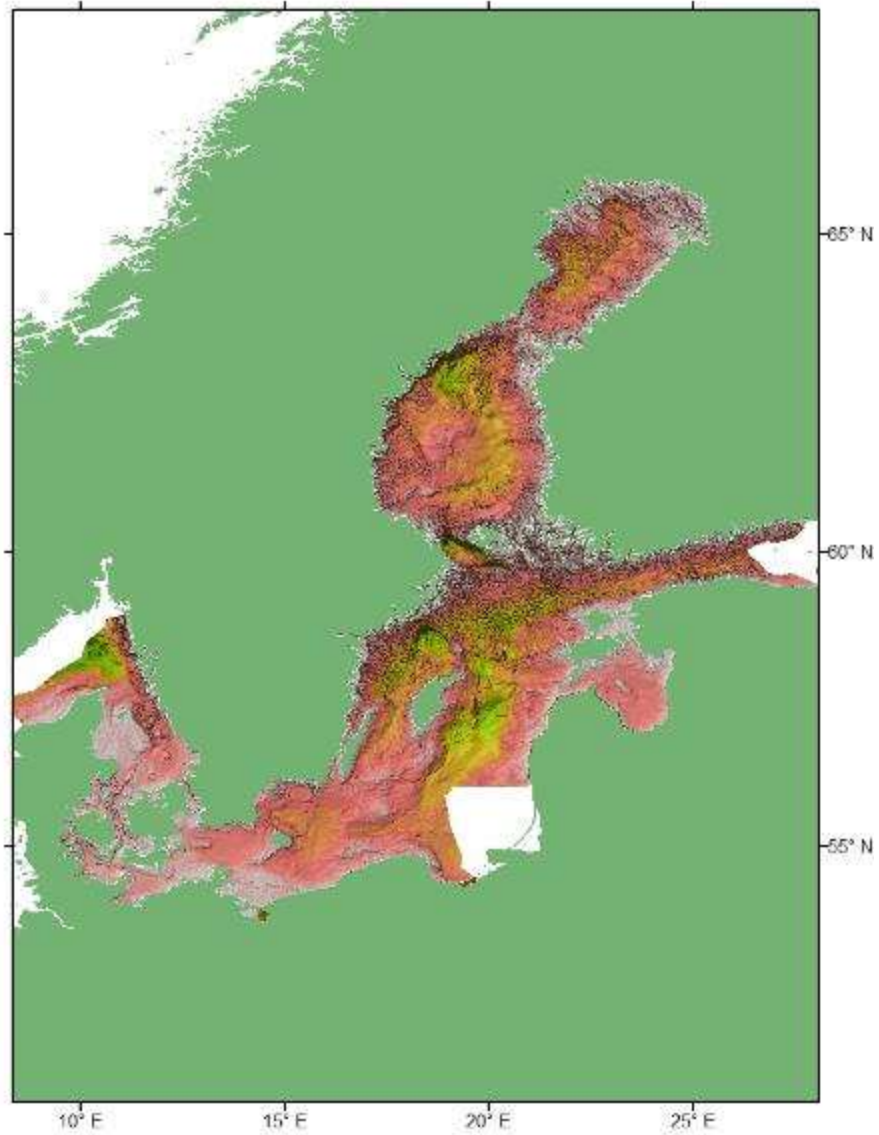




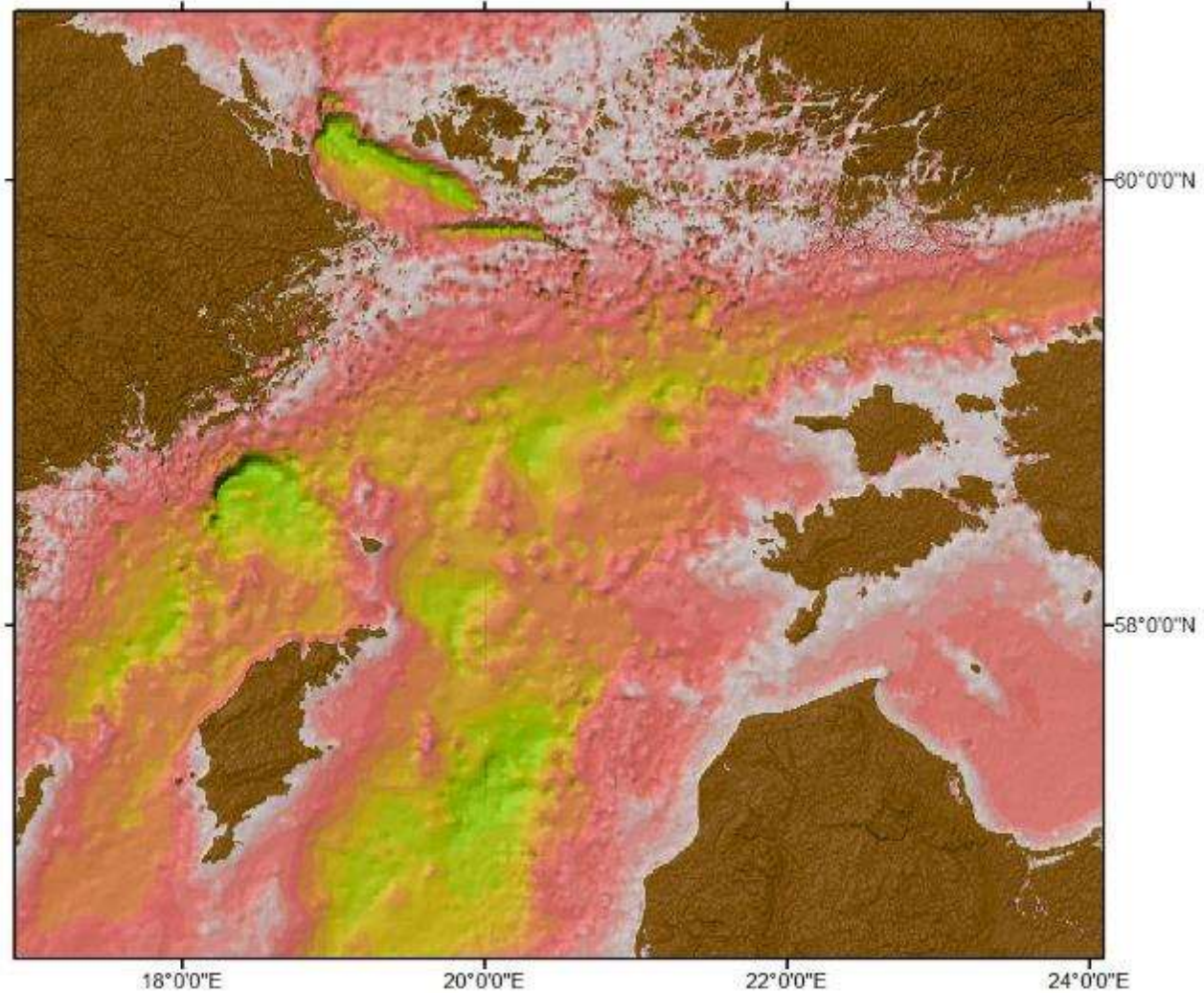
# Updated GEBCO grid off NW Europe



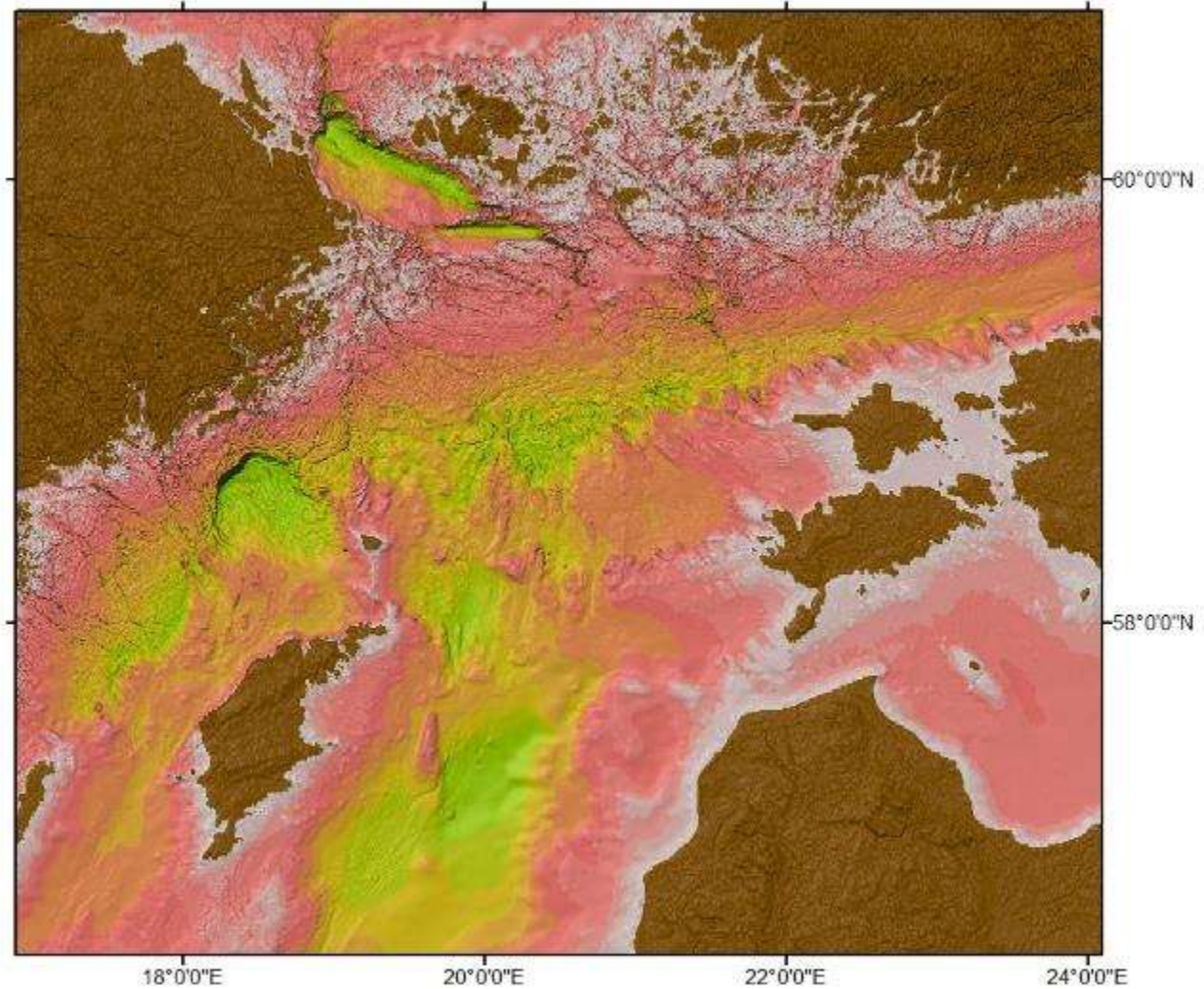
# Baltic Sea Bathymetric Data Base



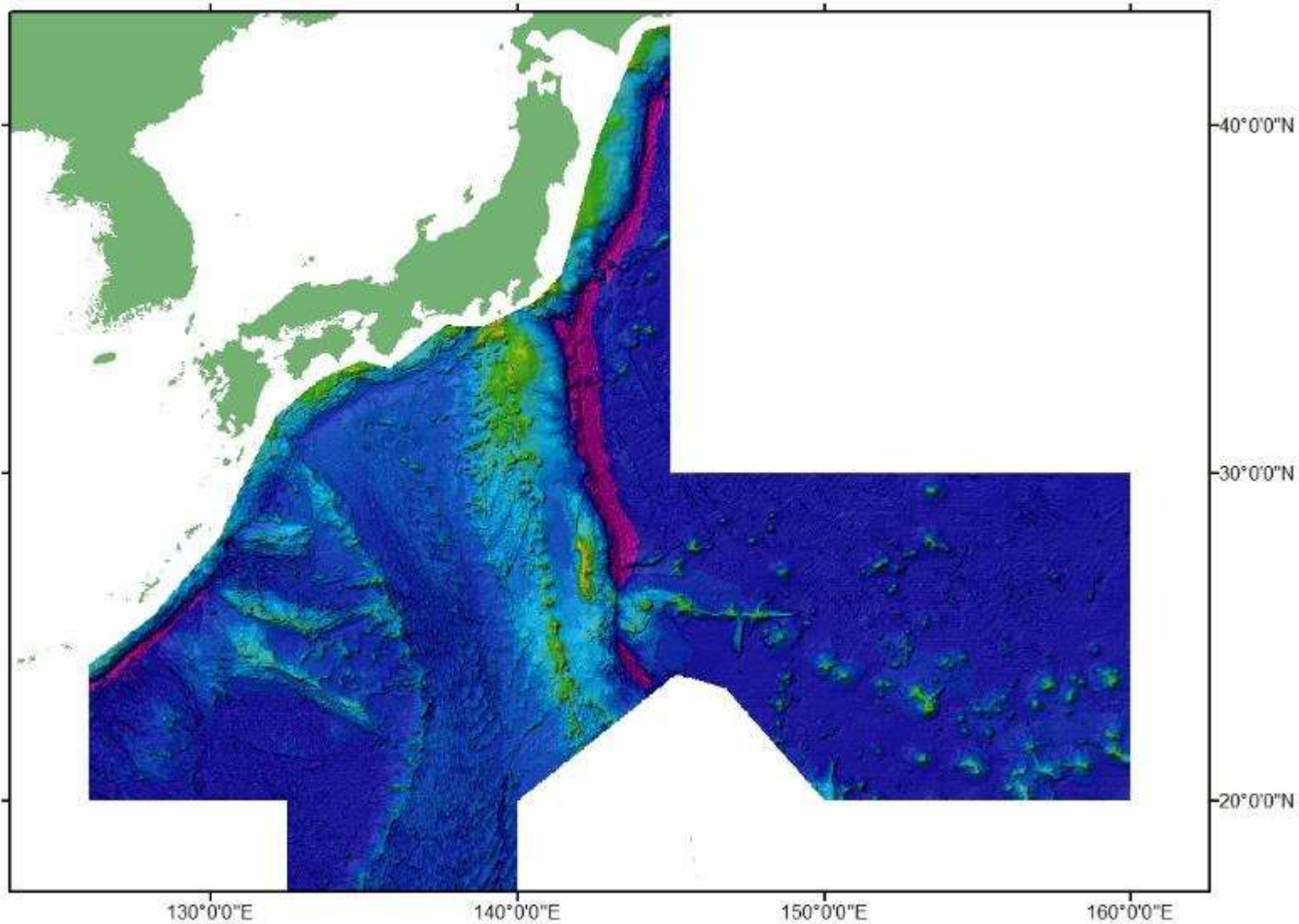
# Existing GEBCO Grid



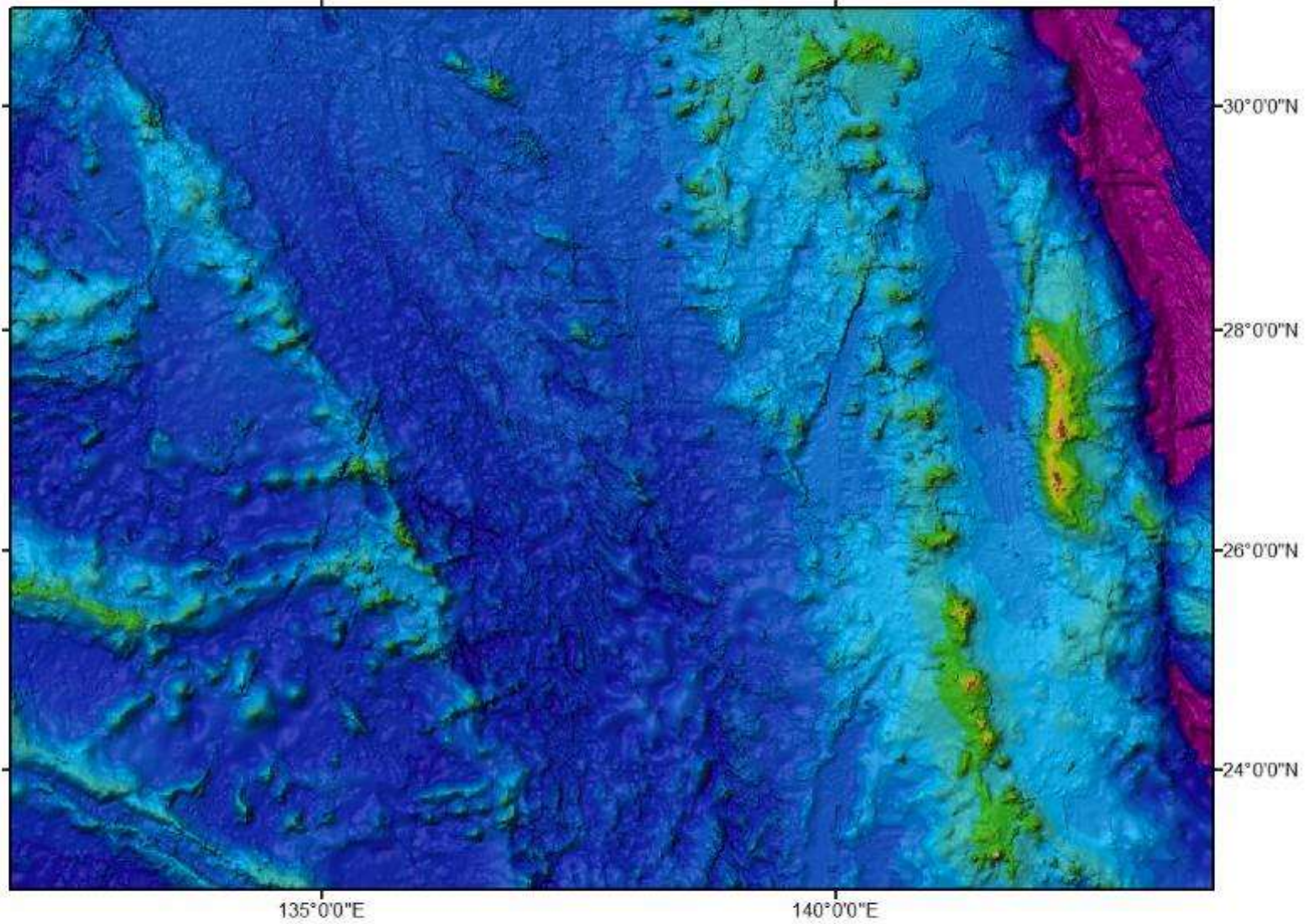
# Updated GEBCO Grid – merged with BSBD data set



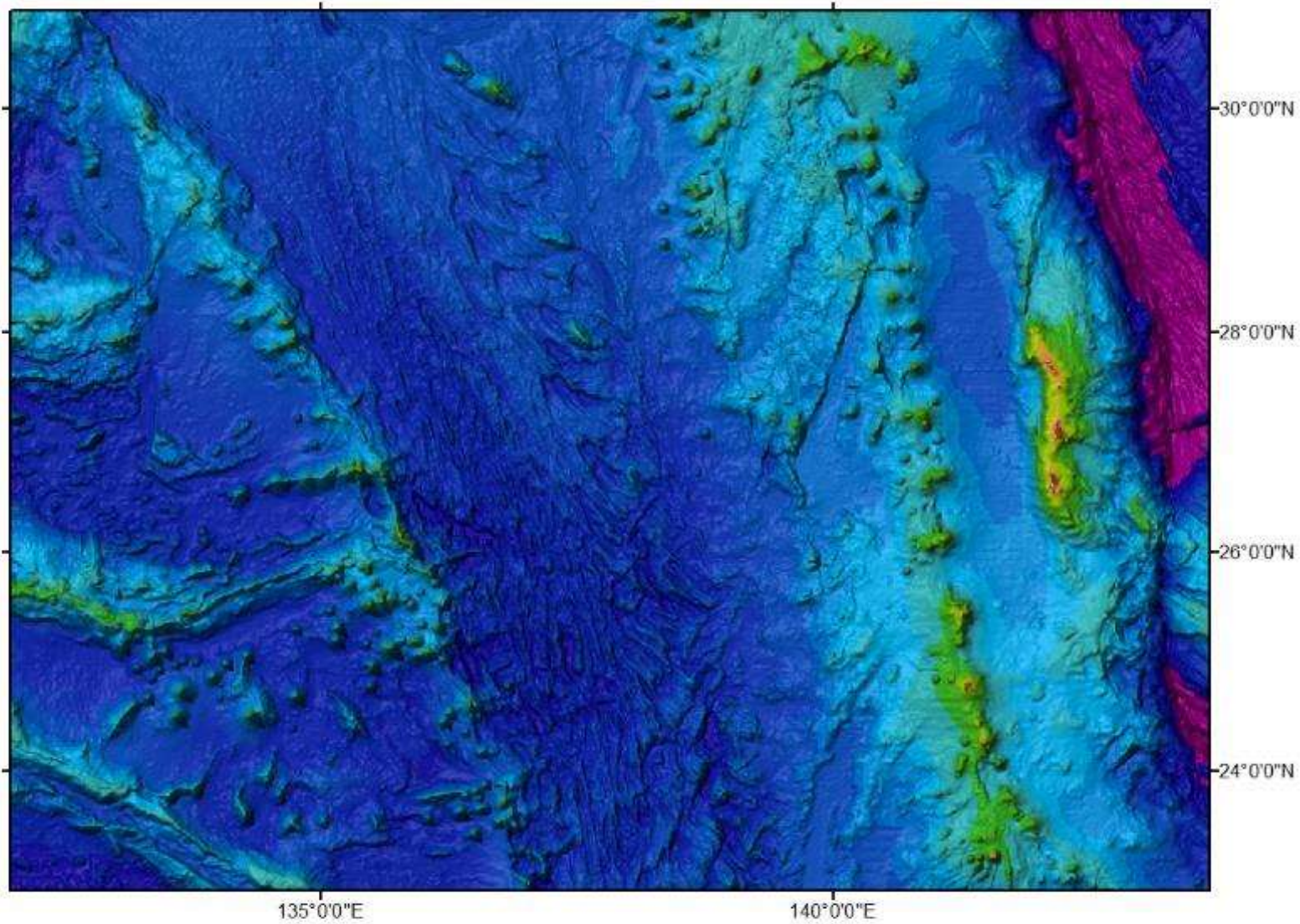
# JHOD Grid for the North-western Pacific Ocean region



# Existing GEBCO grid



# JHOD grid



## **Making GEBCO's grids available**

- The new grid will be made available via the internet and also as part of the GEBCO Digital Atlas.
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- This is useful when selecting data for a large geographic area.
- The grid will be made available in netCDF, using Climate and Forecast (CF) metadata conventions – a means of including metadata within the netCDF data file and to help with interoperability between data sets

## **Making GEBCO's grids available**

- The use of assigning a Digital Object Identifier (DOI) to the next release of the GEBCO grid is being investigated.

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- BODC is able to provide DOI's for data sets through its Published Data Library service:  
[https://www.bodc.ac.uk/data/published\\_data\\_library/service/](https://www.bodc.ac.uk/data/published_data_library/service/).

## **GEBCO's Web Services**

- A new version of the GEBCO Web Map Service (WMS) will be developed  
– based on the GEBCO\_2014 Grid
- The GEBCO Source Identifier (SID) grid will be made available as a WMS.

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- Looking to extend the range of web services

# **GEBCO's data set and products – access statistics**

- Distribution of GEBCO's grids
- Distribution of the GEBCO Digital Atlas (GDA)

## Distribution of GEBCO's grids

GEBCO's current global bathymetric model is the GEBCO\_08 Grid. Released in January 2009 and updated in 2010.

### **GEBCO\_08 Grid**

- Total number of downloads since its release: **30,626**
- Downloads of the global grid: **9,951**
- Downloads of user-selected sub areas of the global grid: **20,675**

### **Source Identifier Grid (released November 2009)**

- Total number of downloads since its release: **7,704**
- Downloads of the global grid: **3,789**
- Downloads of user-selected sub areas of the global grid: **3,915**

## **Distribution of GEBCO's grids**

**Downloads of GEBCO\_08 since last year's meeting: 1<sup>st</sup> October 2013 to 16<sup>th</sup> May 2014**

Total number of downloads: 5,002

Full global grid: 1,650

User-selected sub-regions of the global grid: 3,352

**Downloads of the GEBCO\_08 SID Grid since last year's meeting: 1<sup>st</sup> October 2013 to 16<sup>th</sup> May 2014**

Total number of downloads: 1,567

Full global grid: 769

User-selected sub-regions of the global grid: 798

**Downloads of the GEBCO One Minute Grid since last year's meeting: 1<sup>st</sup> October 2013 to 16<sup>th</sup> May 2014**

Total number of downloads: 2,193

## **Distribution of the GEBCO Digital Atlas (GDA)**

The GEBCO Digital Atlas is a collection of GEBCO's grids and bathymetric contour data sets which is made available on DVD along with a software interface for viewing and accessing the data sets.

- 100 copies of the GDA distributed in 2013
- 48 copies sold, 52 complimentary copies given to students on IODE training programmes
- Since its release in 2003, 1,686 copies of the GDA have been distributed

## Distribution of the GEBCO Digital Atlas (GDA)

Royalties contributed to GEBCO from the sale of the GDA in 2013 = **£5,617**

This makes a total of **£87,143** since the re-release of the GDA in 2003

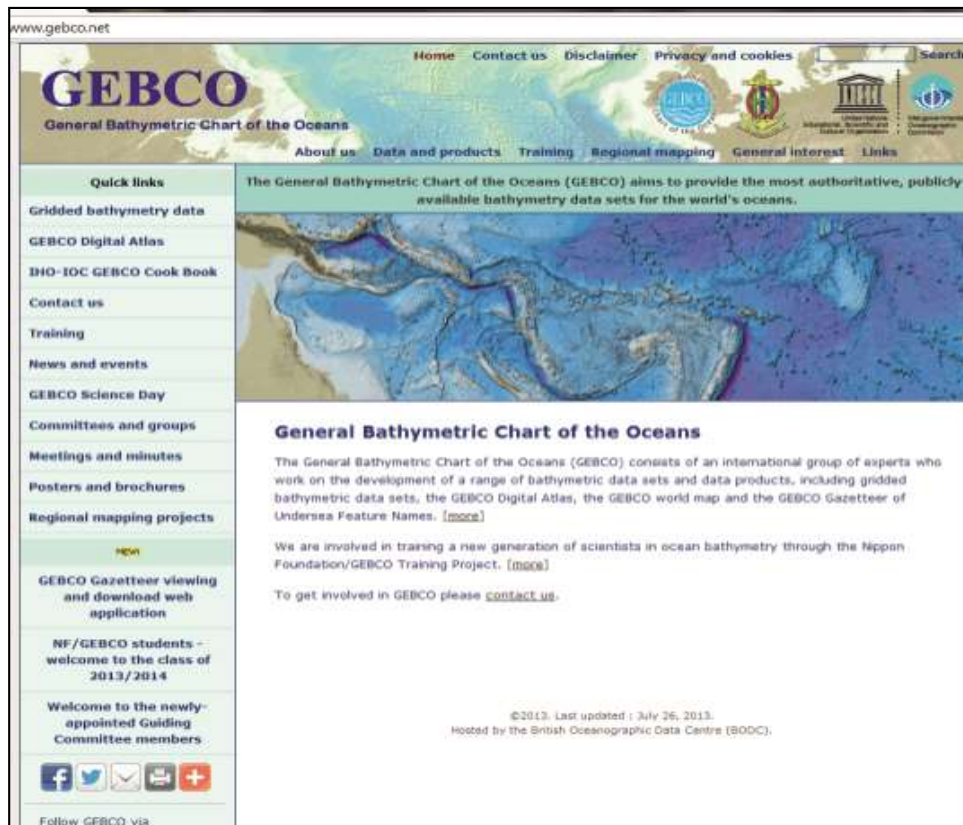
Royalties contributed to GEBCO for the sale of the GDA per year:

Year	Amount
2003	£10,222
2004	£9,053
2005	£8,474
2006	£12,433
2007	£8,754
2008	£8,216
2009	£11,580
2010	£5,720
2011	£3,174
2012	£3,900
2013	£5,617

# Access to GEBCO's web site (www.gebco.net)

GEBCO's web site was re-launched in July 2008. It is managed at BODC on behalf of GEBCO.

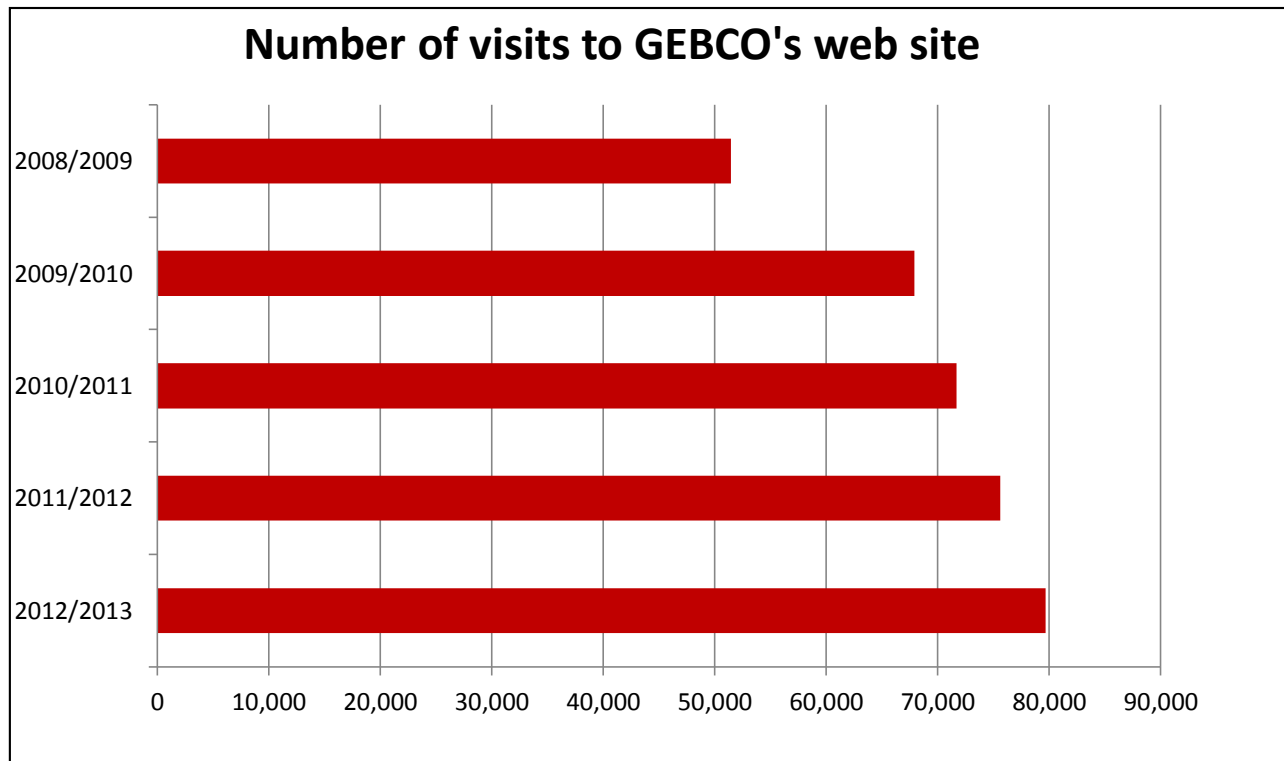
BODC gratefully acknowledges the receipt of funding (5K Euro) this year for GEBCO web site maintenance work (part of the IHO funding for GEBCO work plan tasks).



The screenshot shows the GEBCO website homepage. At the top, the URL 'www.gebco.net' is visible. The main header features the GEBCO logo and the text 'General Bathymetric Chart of the Oceans'. Navigation links include 'Home', 'Contact us', 'Disclaimer', 'Privacy and cookies', and a search box. Below the header, there are logos for the International Hydrographic Organization (IHO), the International Oceanographic Commission (IOC), and the International Geographical Names Board (IGNB). A secondary navigation bar includes 'About us', 'Data and products', 'Training', 'Regional mapping', 'General interest', and 'Links'. A 'Quick links' sidebar on the left lists various resources such as 'Gridded bathymetry data', 'GEBCO Digital Atlas', 'IHO-IOC GEBCO Cook Book', 'Contact us', 'Training', 'News and events', 'GEBCO Science Day', 'Committees and groups', 'Meetings and minutes', 'Posters and brochures', 'Regional mapping projects', 'New!', 'GEBCO Gazetteer viewing and download web application', 'NF/GEBCO students - welcome to the class of 2013/2014', and 'Welcome to the newly-appointed Guiding Committee members'. The main content area features a large bathymetric map of the world's oceans. Below the map, the text reads: 'The General Bathymetric Chart of the Oceans (GEBCO) aims to provide the most authoritative, publicly-available bathymetry data sets for the world's oceans.' Further down, a section titled 'General Bathymetric Chart of the Oceans' provides a detailed description of the organization and its work, including information about the Nippon Foundation/GEBCO Training Project and a link to 'contact us'. The footer contains copyright information: '©2013. Last updated: July 26, 2013. Hosted by the British Oceanographic Data Centre (BODC)'. Social media icons for Facebook, Twitter, and YouTube are also present.

## Access to GEBCO's web site (www.gebco.net)

Since the last GEBCO meeting in October 2013 there have been over 55,600 visits to site, accessing over 176,500 web pages.





# Access to GEBCO's web site (www.gebco.net)

## 10 ten most popular pages visited

Page title and URL	No. of page views (2013)	Avg. Time on Page (minutes)
<b>Gridded bathymetry data*</b> <a href="http://www.gebco.net/data_and_products/gridded_bathymetry_data/index.html">www.gebco.net/data_and_products/gridded_bathymetry_data/index.html</a>	44,924	01:29
<b>GEBCO home page</b> <a href="http://www.gebco.net/index.html">www.gebco.net/index.html</a>	41,979	01:07
<b>GEBCO world map</b> <a href="http://www.gebco.net/data_and_products/gebco_world_map/index.html">www.gebco.net/data_and_products/gebco_world_map/index.html</a>	18,778	01:01
<b>GEBCO Digital Atlas</b> <a href="http://www.gebco.net/data_and_products/gebco_digital_atlas/index.html">www.gebco.net/data_and_products/gebco_digital_atlas/index.html</a>	12,479	00:47
<b>External link to grid data download page*</b> <a href="http://www.bodc.ac.uk/data/online_delivery/gebco/index.html">www.bodc.ac.uk/data/online_delivery/gebco/index.html</a>	9,979	08:00
<b>GEBCO's data and products</b> <a href="http://www.gebco.net/data_and_products/index.html">www.gebco.net/data_and_products/index.html</a>	9,281	00:23
<b>GEBCO grid display software</b> <a href="http://www.gebco.net/data_and_products/grid_display_software/index.html">www.gebco.net/data_and_products/grid_display_software/index.html</a>	7,617	01:14
<b>Web map service page</b> <a href="http://www.gebco.net/data_and_products/gebco_web_services/web_map_service/index.html">www.gebco.net/data_and_products/gebco_web_services/web_map_service/index.html</a>	7,344	02:59
<b>Imagery index page</b> <a href="http://www.gebco.net/data_and_products/imagery/index.html">www.gebco.net/data_and_products/imagery/index.html</a>	6,813	00:29
<b>Undersea feature names</b> <a href="http://www.gebco.net/data_and_products/undersea_feature_names/index.html">www.gebco.net/data_and_products/undersea_feature_names/index.html</a>	6,800	01:35

# Access to GEBCO's web site ([www.gebco.net](http://www.gebco.net))

## Top 10 visits by individual countries in 2013

Country / Territory	Visits	Pages / visit	Average visit duration (minutes)
United States	14,671	3.0	02:31
United Kingdom	7,078	3.33	03:22
France	4,266	3.35	03:23
Germany	3,503	3.51	03:21
Spain	2,797	4.01	04:13
Japan	2,716	3.42	03:30
Italy	2,710	3.86	03:20
India	2,479	3.17	03:23
Canada	2,466	3.17	03:50
Indonesia	2,259	3.81	05:17

## GEBCO on Facebook

- **GEBCO's Facebook page** ([www.facebook.com/GEBCO](http://www.facebook.com/GEBCO))
- Since the last GEBCO meetings in October 2013, we have posted 16 news items to GEBCO's Facebook page.
- We endeavour to gather these items from media/academic sources from around the world.
- There have been 382 likes of these pages
- 25-34 years old - most popular age group accessing our Facebook pages

**Thank you**