



Digital Atlas Manager : Seabed2030 Global Center Helen Snaith & Pauline Weatherall

Canberra, Australia, 12 Nov 2018

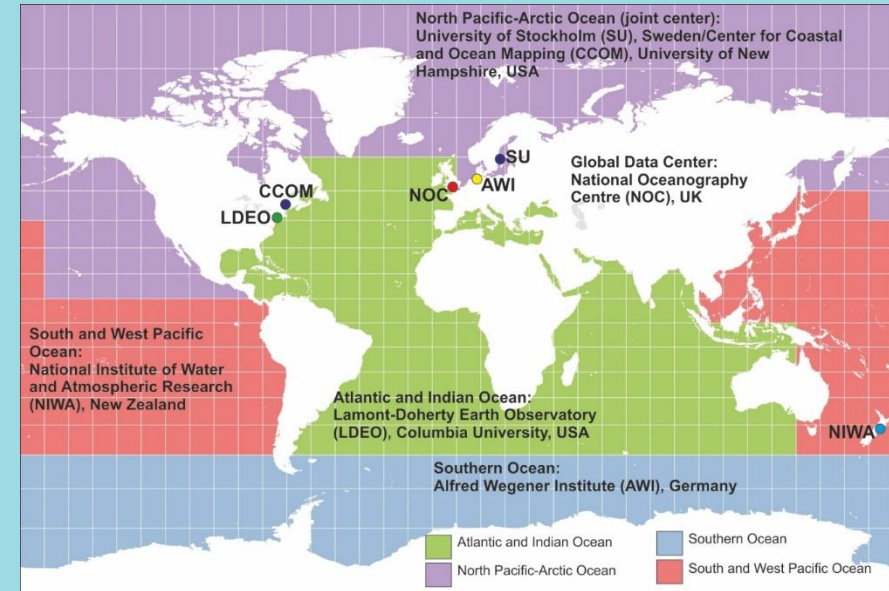


Seabed 2030 Global Center

- BODC began as Global Center for Seabed 2030 in Feb 2018
- Primary responsibility for generating the GEBCO Global Grid
 - Working in partnership with Regional Centers
- Responsible for Data Delivery
 - Range of delivery options
- Responsible for project website
- Responsible for project collaboration tools and archives

The GEBCO 2018 grid

- Being produced through the Nippon Foundation-GEBCO Seabed 2030 Project framework.
- Created in Collaboration with Regional Centers:
 - Regional Centers bring together bathymetric data and output from existing mapping initiatives in their area to produce a gridded data set for their region.
 - Regional grids are passed to the Global Center to be merged into the global GEBCO grid.



Coverage of the Regional Centers for the Nippon Foundation-GEBCO Seabed 2030 Project

The GEBCO 2018 grid

- Format of the next GEBCO global grid

Grid interval	15 arc-seconds
X,Y co-ordinates	Geographic co-ordinates: longitude, latitude
Pixel values (elevation)	Float , negative (-ve) values for bathymetry (i.e. land elevation values will be positive (+ve) values)
Pixel values (SID)	Two byte signed integer
Grid registration	Pixel registered – i.e. data values represent values at centre of grid cell

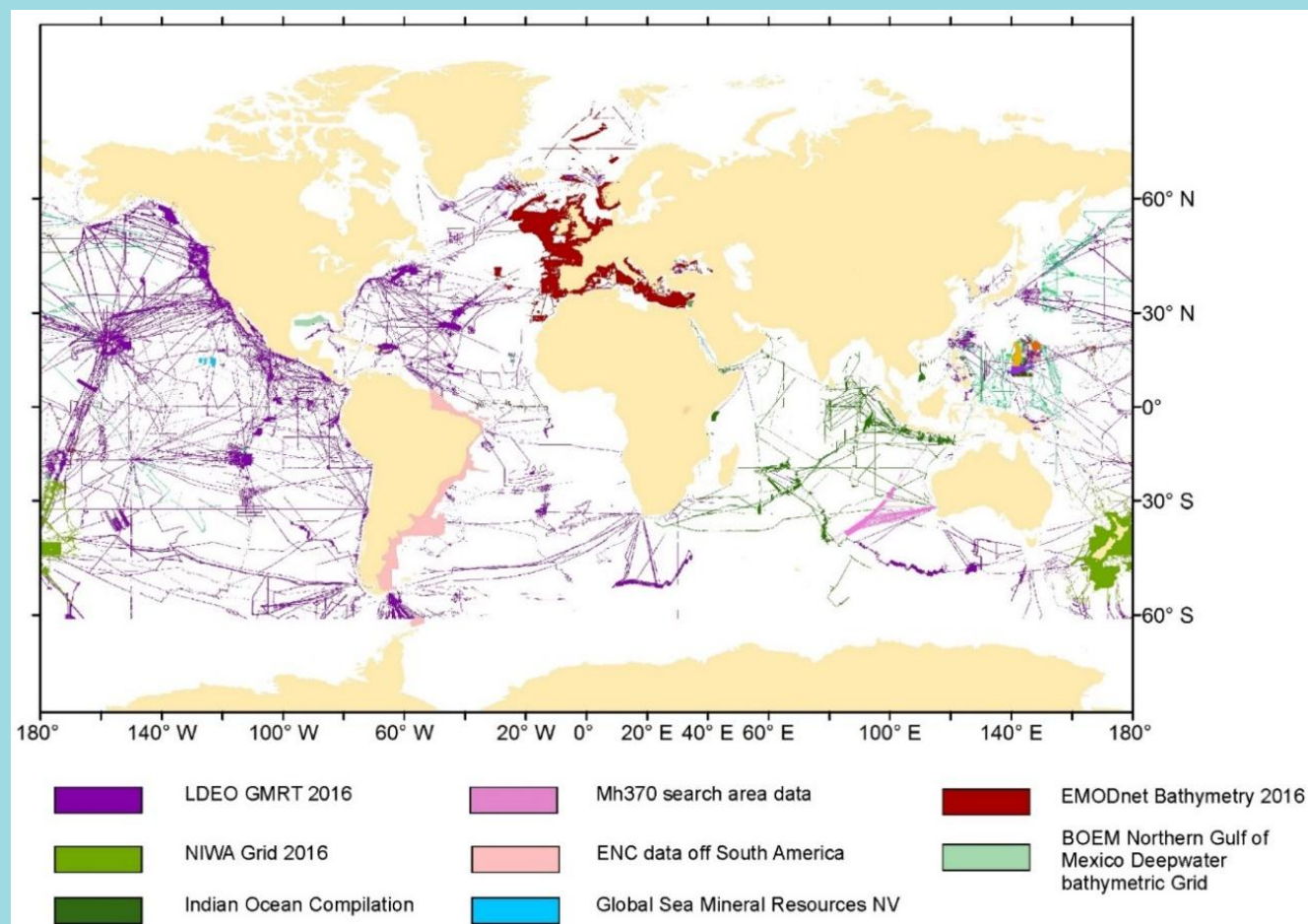
- Due for release towards the end of 2018

GEBCO_2018

The 'GEBCO_2018' Grid will use the unpublished 'GEBCO_2017' grid as a base.

For much of the grid,
this will be oversampling
the 30 arc sec base grid
to 15 arc sec
Would prefer to use
SRTM15+ if permission
can be agreed

Land surface data to be
based on GMTED2010
(15 arc sec)



Data sets included in the unpublished GEBCO_2017 Grid

Metadata for contributed data sets

- Recommend that data sets are submitted to IHO DCDB – with the required full accompanying metadata
- For the Source Identifier (SID) Grid, suggest initially a reduced set of metadata fields

Data type	SID code
Digital bathymetric contours from charts	16
Digital bathymetric contours from ENC's	17
ENC sounding	14
Interpolated based on a computer algorithm (e.g. Generic Mapping Tools)	15
Isolated sounding	13
Multibeam	11
Pre-generated grid, based on mixed source data types, e.g. single beam, multibeam etc.	18
Predicted - based on altimetry data	0
Seismic	12
Singlebeam	10
Steering points	20
Unknown source	19

Development of Data Delivery Services

- Current Services:
 - Full File Download
 - Data Sub-set in several file formats
 - Web Map Service
- New Service Development
 - Must allow download and extraction of subsets in variety of formats
 - Improved efficiency
 - Provide enhanced visualization services

Data Delivery (Oct 2017 – Sep 2018)

Over 36,600 downloads of GEBCO's gridded data sets.

GEBCO_2014 Grid: 30,229

GEBCO_2014 SID Grid: 3,726

GEBCO One Minute Grid: 2,674

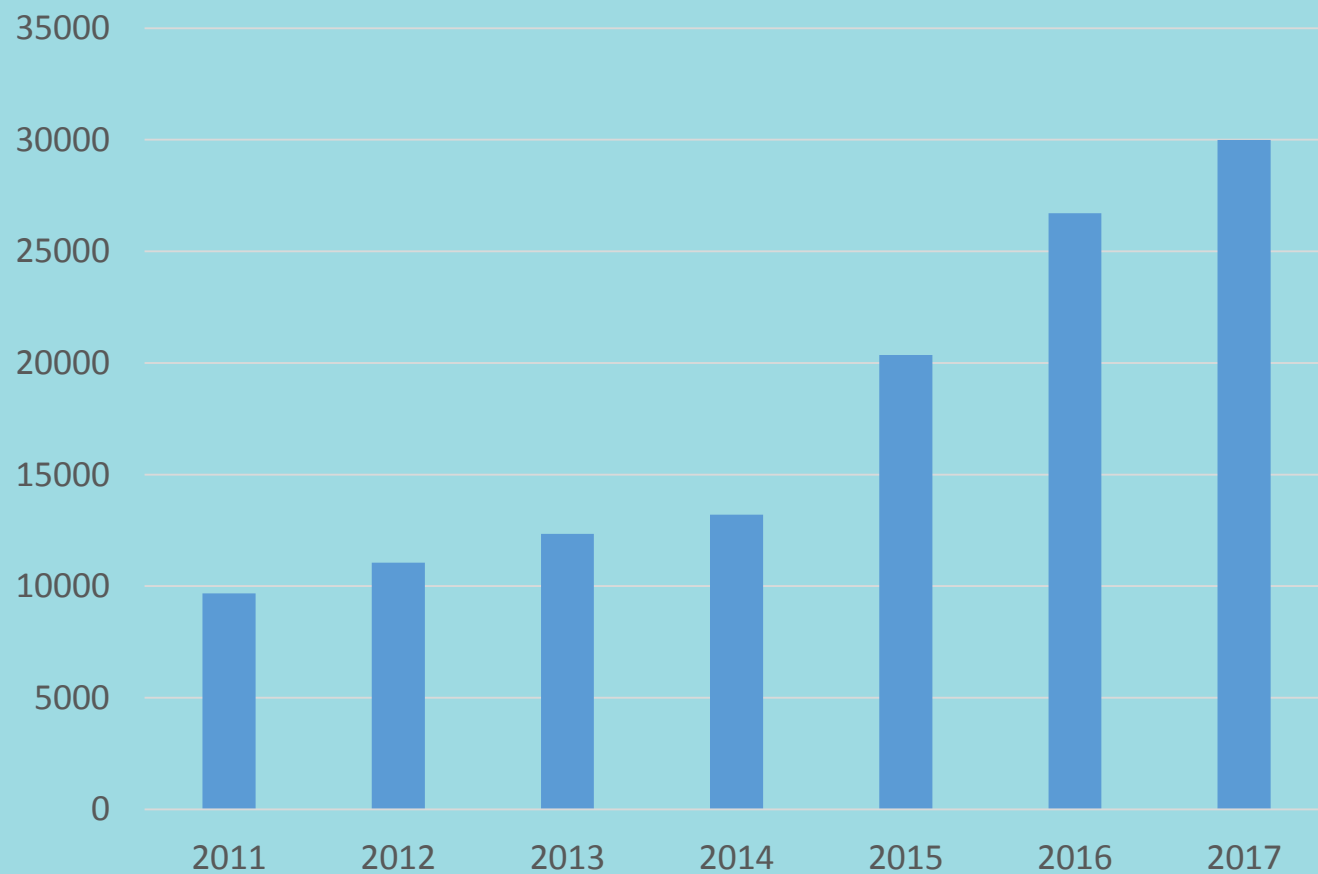
Web Map Services (WMS): over 6,800,000 requests

includes request to the services from applications, such as external web sites.

GEBCO Digital Atlas (GDA): six copies distributed (four copies sold)

Downloads

No. of grid downloads per year



Data set	1D NetCDF	CF NetCDF	Esri ASCII raster	Data Geotiff
GEBCO_2014	2,809	7,923	10,181	9,316
GEBCO_2014 SID	492	960	1,197	1,077
GEBCO One Minute Grid	899	1,775	-	-

New WebSite

- Interim updates to existing Seabed 2030 Page
 - Page for each center
 - Media information specific to project
 - Key to maintain same look and feel as main GEBCO website
- Major Design Review Summer 2018
 - Overhaul of look and feel
 - GEBCO site and SeaBed2030 Site in parallel to maintain consistency
 - Redesigned content layout – most used pages ‘front and centre’
 - Released 30 October

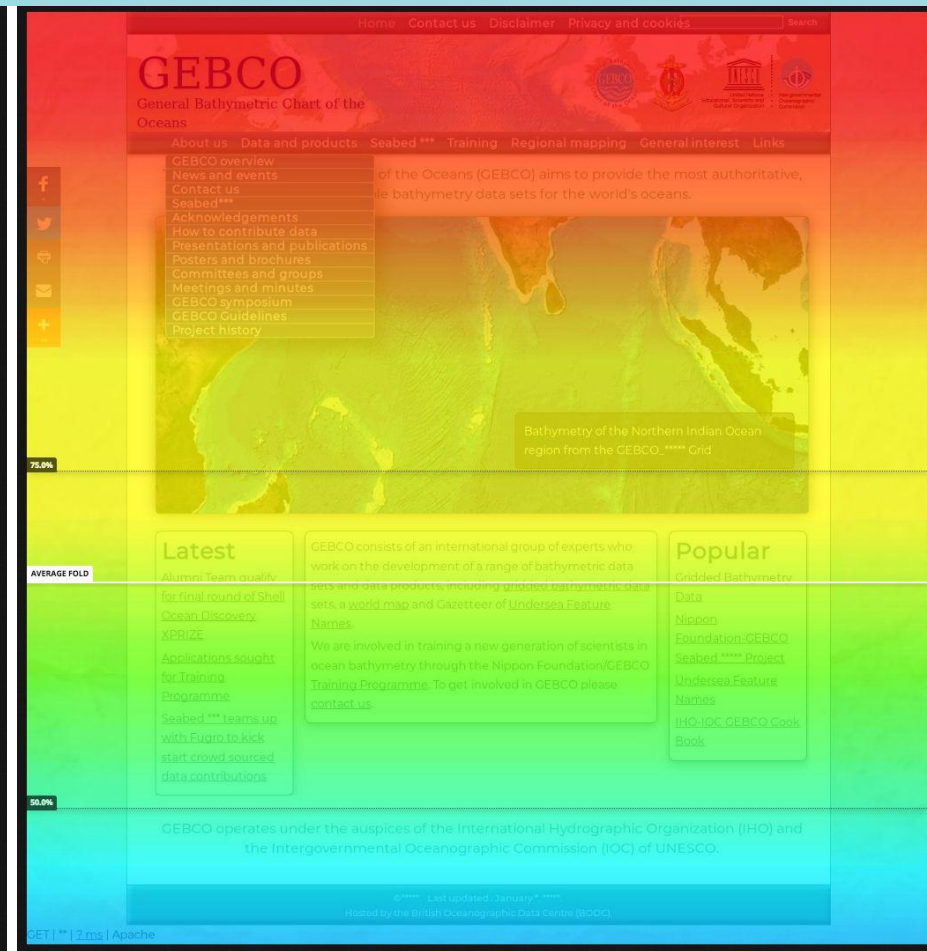
Analytics Findings (From 6 months)

- 19.29% of visitors are under 24! A further 34.77% of users are under 34!
- Windows is the most popular OS (73.8% of users)
- Chrome is the most popular browser but has the longest page load time
- Visits made without using site search 64,729
 - This could mean it's not visible, isn't working or isn't required
- 71.0% of audience are male
- Largest audience are from the US (18.15%) this could affect terminology
- Desktop users account for the majority of site visits (87.28%)
 - Spend the most time on the site and have the lowest bounce rate

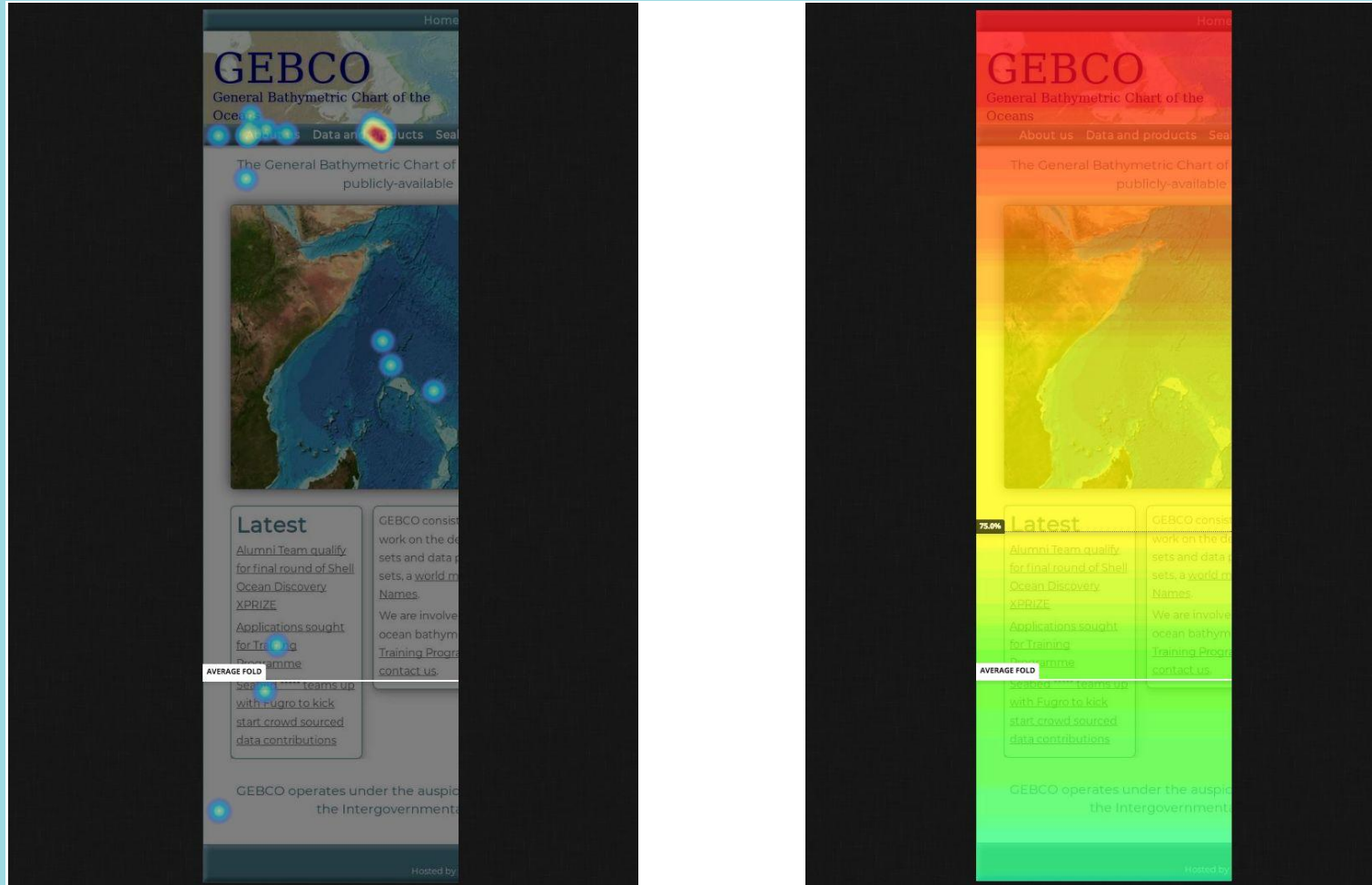
Analytics Findings (From 6 months)

- Pages relating to /data_and_products/ are the most popular
 - so should feature prominently in the redesign
- /data_and_products/gebco_web_services/web_map_service/index.html
 - has the highest bounce rate but is the 4th most popular page
- People use the breadcrumb to navigate the site
- A lot of visitors return to previous pages
 - which may suggest they are not finding the information they are looking for.
- 'about_us' has a high bounce rate and a low average time on page

Page Hot Spots



Page Hot Spots



Home

Data & Products ▼

Seabed 2030

Training

News & Media

About ▼

Contact



United Nations
Educational, Scientific and
Cultural Organization

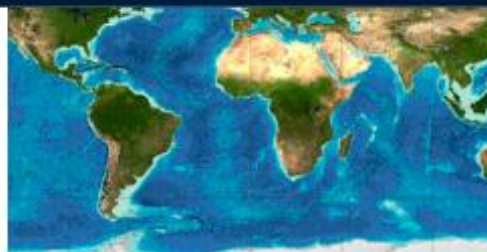


Intergovernmental
Oceanographic
Commission



GEBCO aims to provide the most authoritative,
publicly available bathymetry data sets for the
world's oceans.

[Download GEBCO's global grid](#)



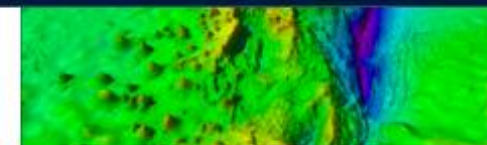
GEBCO's gridded bathymetric data sets are global terrain models for ocean and land, and includes the GEBCO 2014 Grid, a global 30 arc-second interval grid. The grids are available to download or access through Web Map Services.

[Read more](#)



GEBCO produces and makes available a range of bathymetric data sets and products. This includes a global bathymetric grid; gazetteer of undersea feature names, a Web Map Service and printable maps of ocean bathymetry.

[Read more](#)



Seabed 2030 is a collaborative project between the Nippon Foundation and GEBCO. It aims to bring together all available bathymetric data to produce the definitive map of the world ocean floor by 2030 and make it available to all.

[Read more](#)

Support for Seabed 2030

- Working with Arctic and North Pacific Regional Center colleagues to establish baseline ‘percentage mapped’
- Working with Regional Centers to establish technical details of grid and SID requirements
- Supporting director in reporting, generating news items, maintaining email lists and creating and maintaining collaboration and archive spaces
- Website redesign...

Outreach

Presentations and Meetings Attended

UK Hydrographic Office, January 2018

North Sea Regional Hydrographic Commission, March 2018

Southern Region of the Hydrographic Society (UK), May 2018

Poster abstract about Seabed 2030 accepted for IMDIS 2018 (International Conference on Marine Data and Information Systems) – November 2018

Atlantic Seabed Mapping International Working Group (ASMIWG), May 2018

Publications

Contributions to the SB2030 paper

Lead contributor to an OceanObs '19 community white paper