

The Nippon Foundation – GEBCO Seabed 2030 Project



Seabed 2030:

a collaborative project between The Nippon Foundation and GEBCO











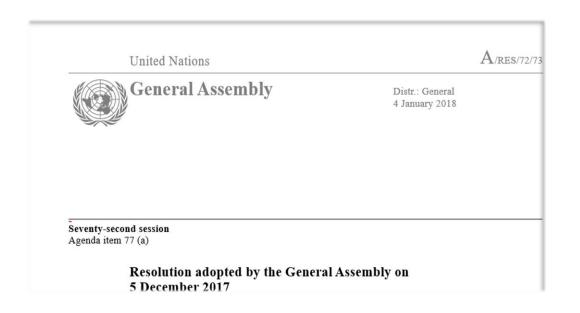
Seabed 2030 Vision:

By 2030, the World's oceans are fully mapped and the freely-available GEBCO Ocean Map is a complete map of global ocean bathymetry.



The Decade needs an Ocean Map





5th December 2017: Resolution A/RES/72/73 of the UN General Assembly declaring The Decade







Seabed 2030 supporting The Decade





December 2017: Resolution A/RES/72/73 of the UN General Assembly

'283. Notes that the depth of a significant percentage of the world's oceans has yet to be measured directly and that bathymetric knowledge underpins the safe, sustainable and cost-effective execution of almost every human activity in, on or under the sea;'

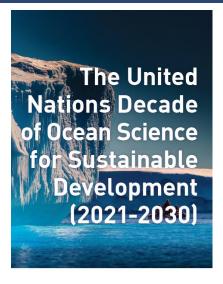
'284. Welcomes the work of **GEBCO** and the subsequent development of the **Seabed 2030 project** for improving bathymetry globally;'

'285. *Encourages* Member States to consider contributing to mechanisms that encourage the **widest possible availability of all bathymetric data**, so as to support the sustainable development, management and governance of the marine environment;'



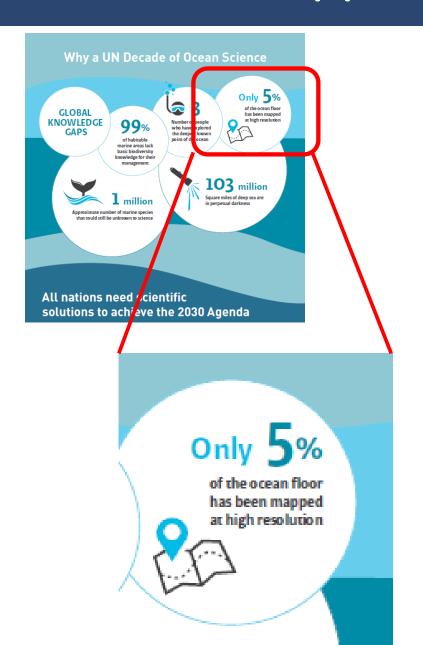
Seabed 2030 supporting The Decade

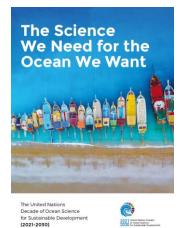




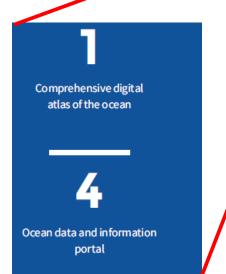
The Ocean We Need for the Future We Want







R&D Priorities 1 & 4



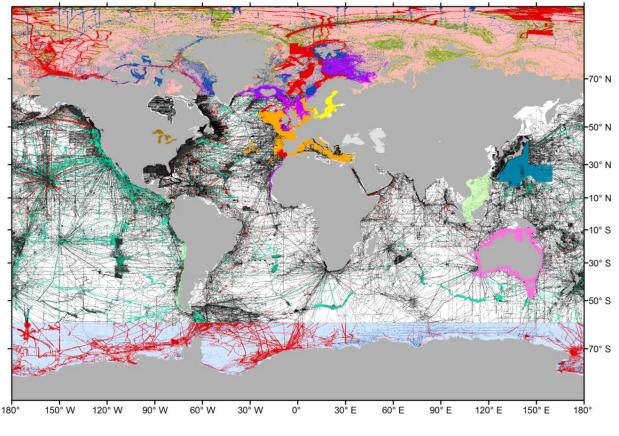






How much of the ocean is mapped?





$$X + Y + Z = 100\%$$

X: Data in GEBCO 2014

$$X = 6\%$$

Y: Data that exists but not yet in GEBCO

Data point

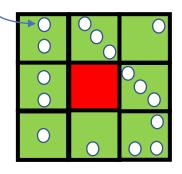
- Public
- Embargoed

Z: Data that must be measured (map the gaps)

Region taken from IBCAO V3 LDEO Global Multi-Resolution Topography Trackline control information from the SRTM30 plus (v5) base grid Region taken from IBCSO V1 Multibeam bathymetry Region based on interpolation guided by satellite-derived gravity data within the SRTM30 plus (v5) EMODNet 2013 Single beam bathymetry base grid Baltic Sea Bathymetry Database Bathymetric contours from charts Coastal area updated with shallow water soundings North American Great Lakes bathymetry Geoscience Australia Grid 2009 HOD grid Regions based on pre-prepared

grids, (first included in the GEBCO 08 Grid)

6% of GEBCO 2014 cells have data 94% interpolated data





Progress to date – GEBCO 2019



$$X + Y + Z = 100\%$$

GEBCO 2014

GEBCO 2019

$$X = 15\%$$

X: In GEBCO

Y: Exists, not in GEBCO

Z: The gaps

X+Y = mapped



https://www.gebco.net/data and products/gridded bathymetry data/



Seabed 2030 Strategy





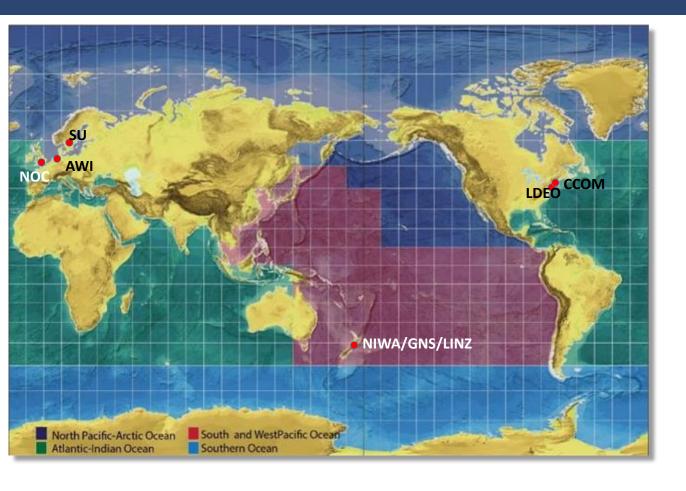
- Existing data
 - Share data with Seabed 2030

- ☐ Regional mapping initiatives
 - Share maps with Seabed 2030



Seabed 2030 Network of Centers





REGIONAL CENTERS

1. North Pacific-Arctic Ocean (SU & CCOM)



2. South & West Pacific Ocean (NIWA)



3. Atlantic-Indian Ocean (LDEO)

Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY | EARTH INSTITUTE

5. GLOBAL CENTER 6. DATA CENTER **National IHO DCDB**

4. Southern Ocean (AWI)







Seabed 2030 Global Call to Action





Seabed 2030 encourages all vessel operators to optimize data collection from existing equipment:

- Turn it on
- > Collect it
- Share it



Parting words



Seabed 2030 provides Member States with a mechanism to respond to UN General Assembly Resolution A/RES/72/73

'285. *Encourages* Member States to consider contributing to mechanisms that encourage the widest possible availability of all bathymetric data, so as to support the sustainable development, management and governance of the marine environment;'

Seabed 2030 allows Member States to make a cost-effective contribution to:

- ✓ UN Decade activities
- ✓ completing the GEBCO Ocean Map,
- ✓ producing the 'comprehensive digital atlas of the ocean' (R&D Priority 1)