The Nippon Foundation-GEBCO

Seabed 2030 Project

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SEABED 2030

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.



Seabed 2030 Management

Management





Seabed 2030 reports to GEBCO Guiding Committee

Leadership

- The Nippon Foundation
- &
- GEBCO under the auspices of IHO and IOC



The Network of Centers



North Pacific – Arctic Ocean

Stockholm University & University of New Hampshire (SU & UNH)

Southern Ocean Alfred-Wegener-Institut (AWI)

<u>Atlantic-Indian Ocean</u> Lamont-Doherty Earth Observatory, Columbia University (**CU**)

South-West Pacific Ocean National Institute of Water & Atmospheric Research (NIWA) Land Information New Zealand (LINZ) GNS Science (GNS)

Global Center

British Oceanographic Data Centre, National Oceanography Centre (**NOC/BODC**)



GEBCO 2014 30-arc second Grid

Seabed 2030 Phase 1 Existing Data

- Ingest all available existing data (Y)
- Catalogue embargoed existing data (Y)
- Develop new high-res GEBCO product
- Develop user tools for GEBCO products

X + Y + Z = 100%

Data IN GEBCO Data NOT in GEBCO

'Map the Gaps' = ocean NOT mapped

Seabed 2030 Phase 2: Mapping the Gaps

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

> Ocean Frontier Mapping

- Use GEBCO Grid to inform location of future mapping
- Advocate for greater mapping activity
- Identify funding for mapping expeditions

Crowd Sourced Bathymetry

- Promoting CSB around the world
- Gaining support of, and data from, contributors at all levels

Technology Innovation

- What can Seabed 2030 do to accelerate uptake of technology to accelerate rate of bathymetric mapping?



Why Now?

The **need**: Ocean under stress



ΙοΤ

The Cloud

Information Technology



Solutions: innovation





Autonomy





UN SDG-14



Open Data

What we ask from AHC Members

• Noting that

- Some 70% of the Earth covered by the ocean, yet today we have mapped only ~ 15%
- Seabed shape is fundamental not only to safety of navigation but also to many ocean processes that:
 - Drive ocean current circulation, affecting climate & sea level rise predictions.
 - Allow forecasting of tsunami wave propagation & other dynamic phenomena (inc sediment transportation; wave action; & underwater hazards).
 - Allow better understanding marine habitats & eco-systems.
 - Offer opportunities for new discoveries

Please Encourage Member States to support Seabed 2030 by:

- Promoting the vital need to map the entire seabed
- Promoting tech innovation that will accelerate mapping
- Making national seabed mapping data available for use by Seabed 2030 in the GEBCO Grid
- Supporting future seabed mapping projects where data can be used by Seabed 2030 in the GEBCO Grid

Thank you

Sponsors:







e ...



Regional and Global Center hosts:



NH

National Oceanography Centre NATURAL ENVIRONMENT RESEARCH COUNCIL

University of New Hampshire

Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY | EARTH INSTITUTE



Connect with Seabed 2030:

https://seabed2030.gebco.net/get_involved/