GEBCO and
Ongoing Nippon Foundation Support

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The Nippon Foundation

Japan's largest private philanthropic foundation

Goal is to help build a society where people support one another

日本財団
THE NIPPON FOUNDATION
For Social Innovation

Guiding Principles:

* Discover
* Prioritize
* Be creative
* Do it now
* Be open
* Grow
* Expand networks

"THE FUTURE OF OUR OCEAN"

- ***1 of 8 main activity focuses***
- ***10 funded programs under this banner***

Capacity-building initiative: postgraduate training course

The Postgraduate Certificate in Ocean Bathymetry

is funded by:

The Nippon Foundation of Japan

and taught at:

The **Center for Coastal and Ocean Mapping / Joint Hydrographic Center, University of New Hampshire, USA**

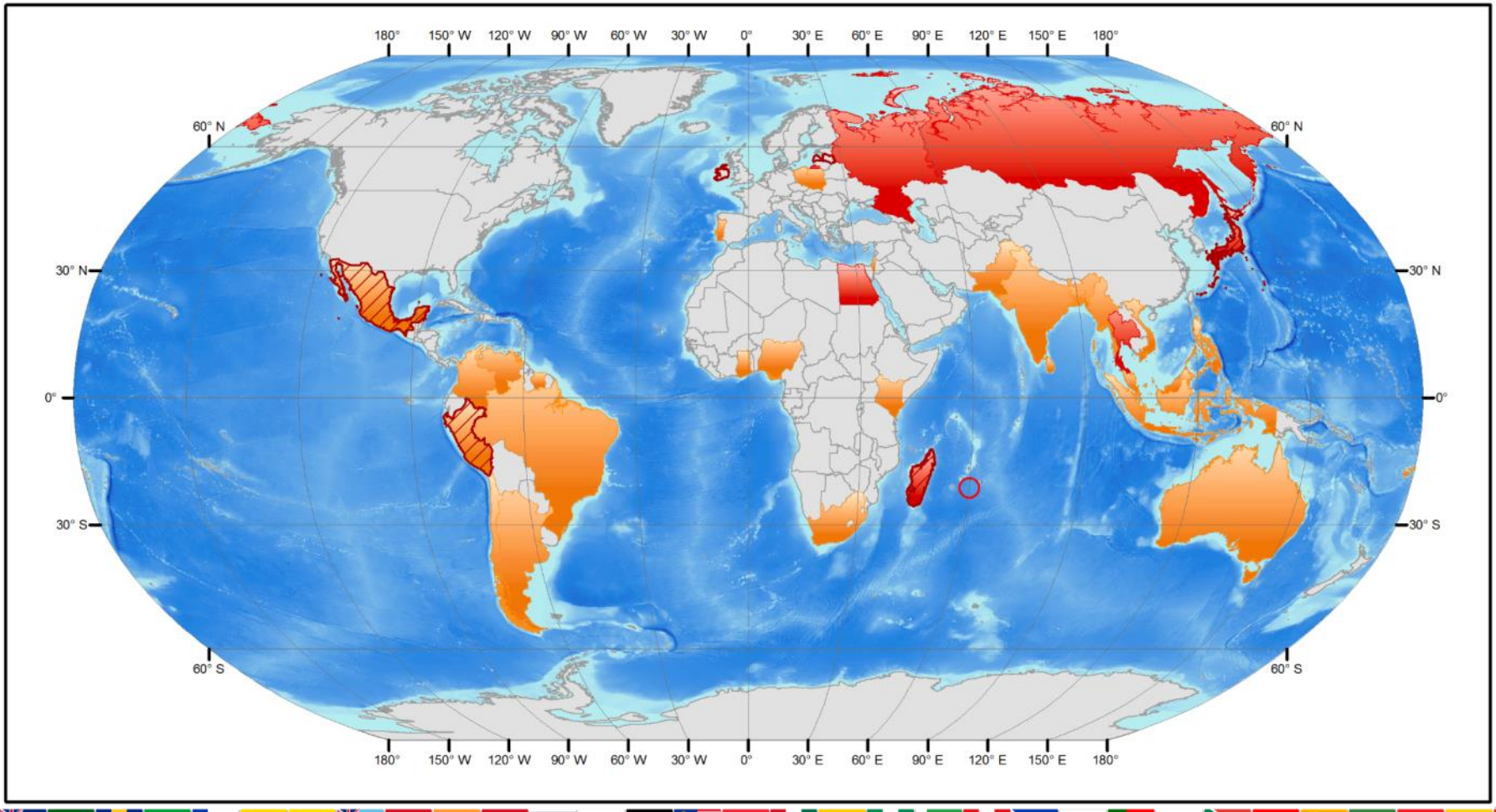
Train a new generation of global ocean mappers who will continue to build on our knowledge of the world's oceans.





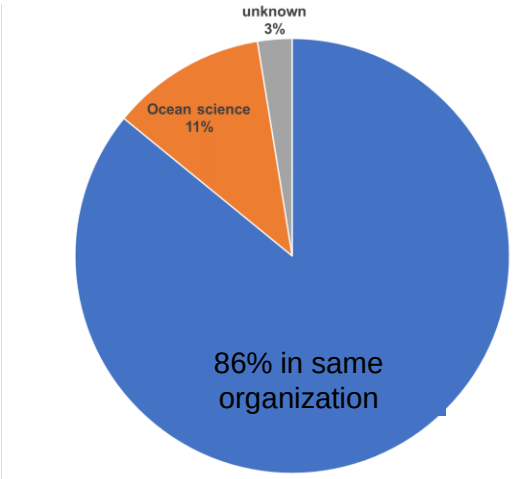

Capacity-building initiative: GEBCO Scholars

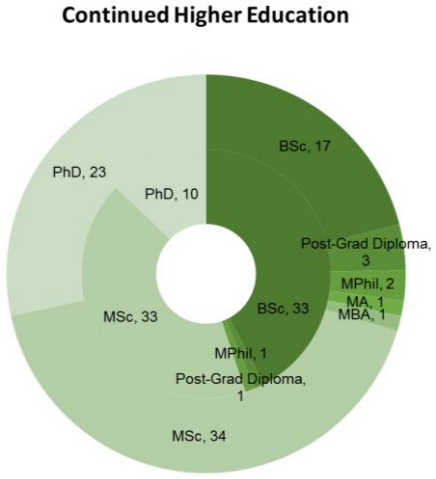
78 scholars from 35 coastal states over last 13 years with the current class coloured red
Add incoming Year 14 class (hatch) – up to 84 people from 37 coastal states



Measure our success?

13 years with alumni from 47 Different Organizations from 35 Coastal States



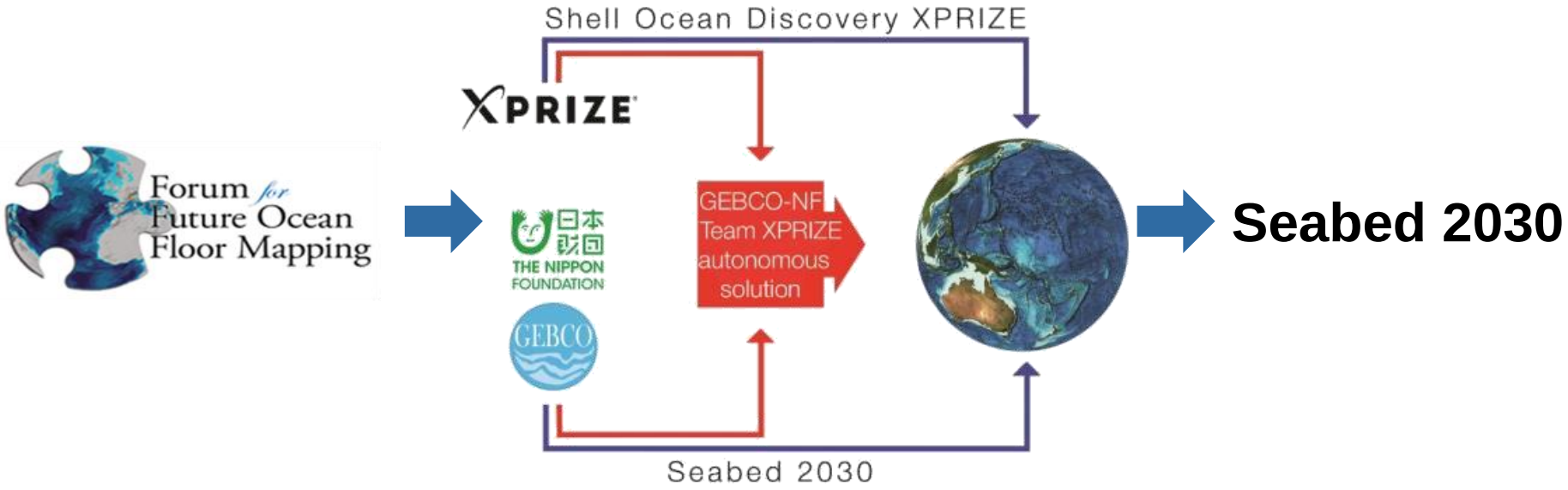


Note:
Inner values: Pre-Training
Outer values: Post-Training
**** 12 MSc (6 at UNH) and * 13 PhD***

Must acknowledge the Nippon Foundation for their ongoing support

The inspiration to enter a team for the challenge:

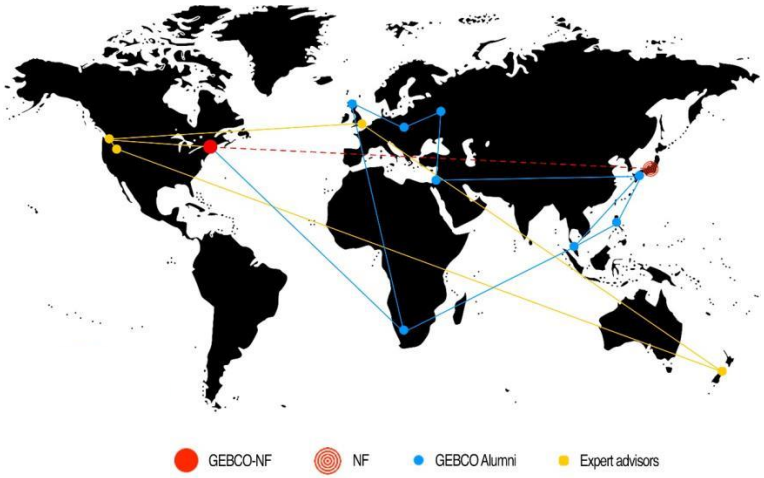
- Opening speech by Mr Sasakawa at the NF-GEBCO Forum for Future Ocean Floor Mapping
- Jyotika Virmani of XPRIZE said at Forum "*GEBCO training program is probably the most-successful unknown capacity-building global initiative*"



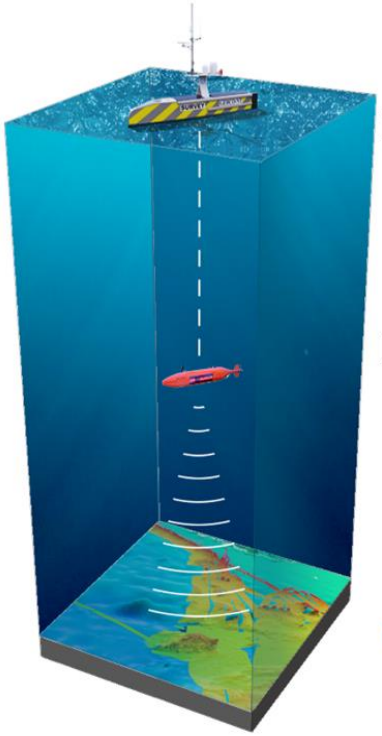
technology innovation work package

GEBCO-NF Alumni Team comprised of:

- 9 active alumni
  (8 different coastal states & 7 years of training program)
- 4 technical advisors from with GEBCO
- Industry Partners:
  - Kongsberg Maritime
  - Ocean Floor Geophysics
  - Hushcraft Ltd
- Technical advisers



GEBCO-NF Alumni Team concept



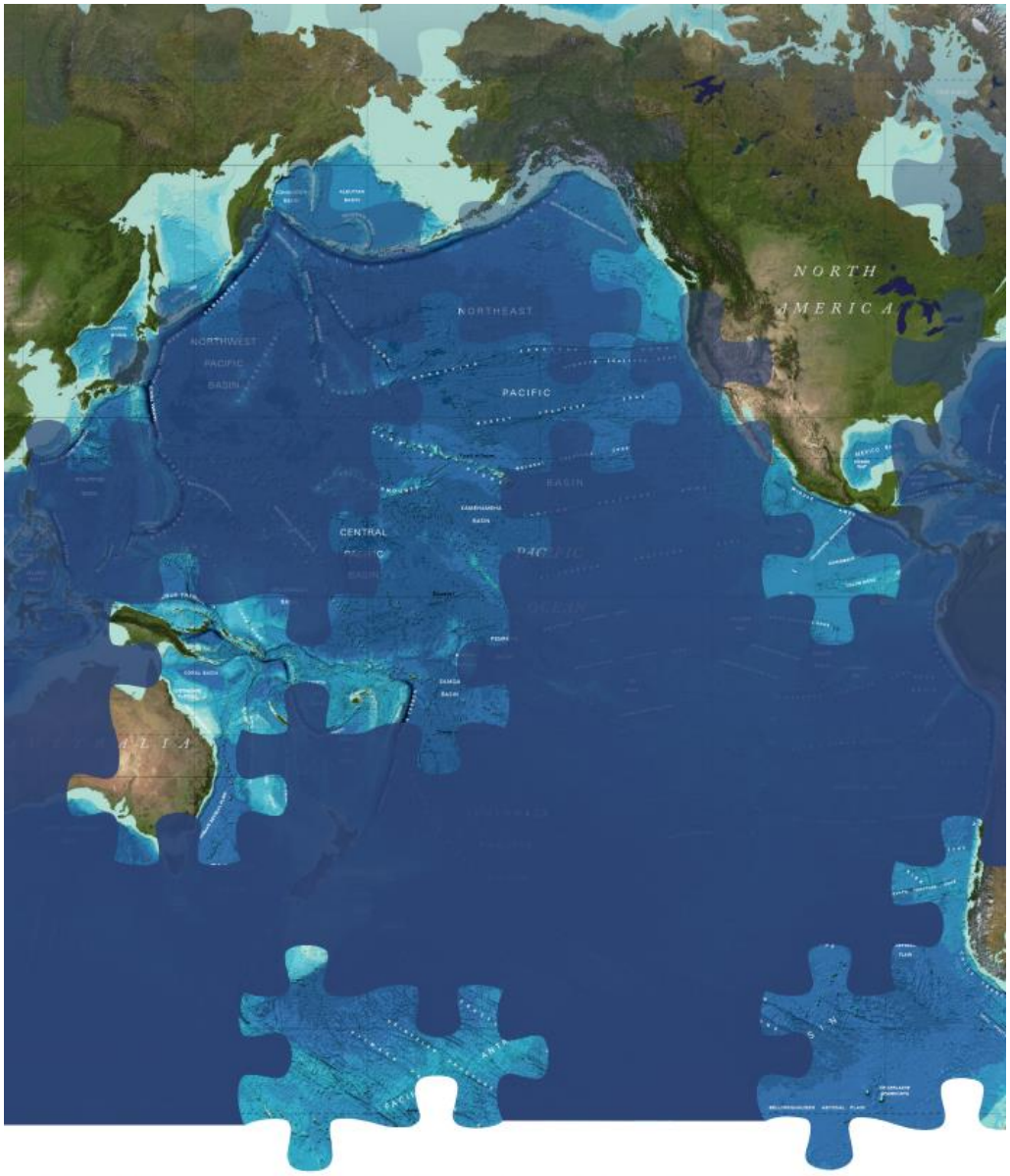
New Technology:
Sea-Kit unmanned surface vessel

OFG-owned *"Chercheur"*,
a Kongsberg Maritime HUGIN autonomous underwater vessel will collect data

Data work flow will produce high-resolution grids and images of the seafloor

THE NIPPON FOUNDATION
For Social Innovation

Shell Ocean Discovery XPRIZE Round 1 funded by Nippon Foundation



The Nippon Foundation – GEBCO – Seabed 2030

Roadmap for Future Ocean Floor Mapping

Seabed 2030: How we got here

Forum for Future Ocean Floor Mapping

June 2016

Mr Sasakawa, Chairman of the Nippon Foundation Proposed '…to map 100% of the topography of the World Ocean by 2030'

18% of ocean accurately mapped in GEBCO grid

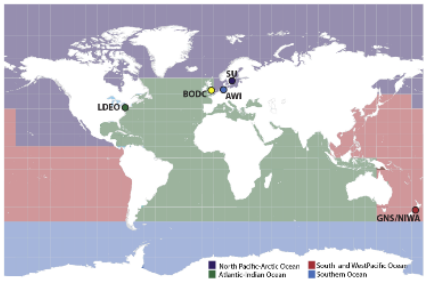
THE OCEAN CONFERENCE
UNITED NATIONS, NEW YORK, 5-9 JUNE 2017

June 2017

Nippon Foundation - GEBCO Seabed 2030 Project announced

Mr Sasakawa – 1 of 8 IOC-UNESCO "Champions of Global Ocean Science"

Project start

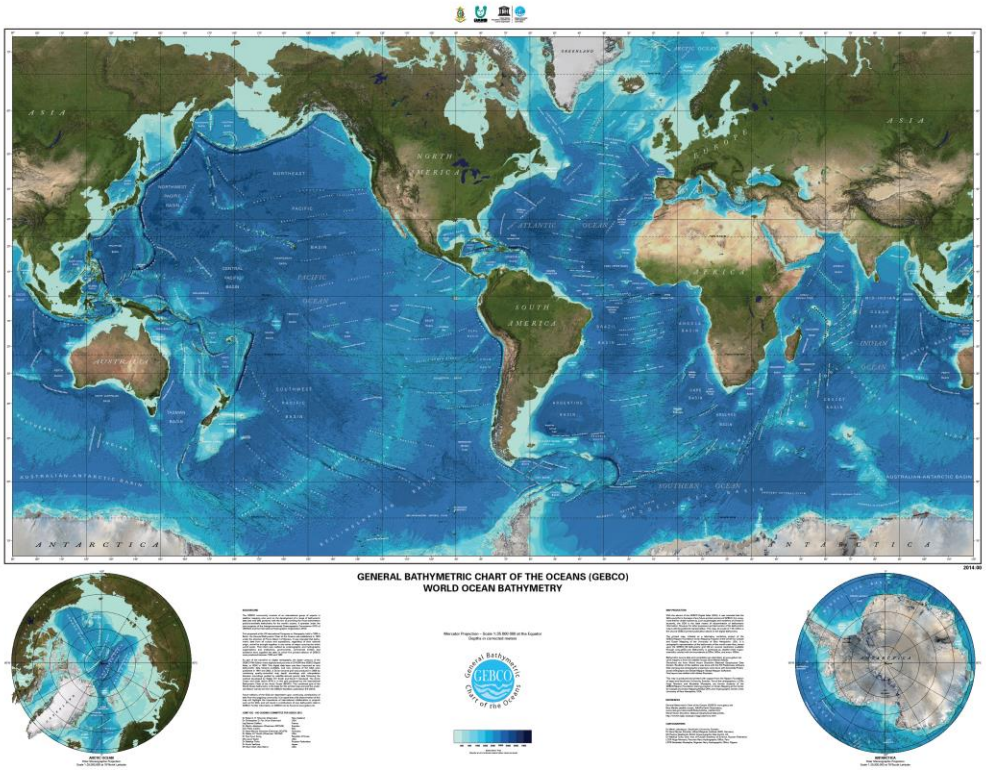


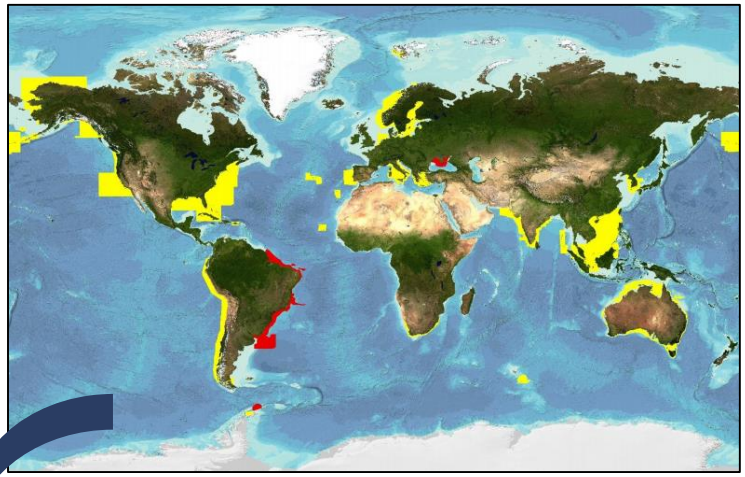
1st August 2017

2030

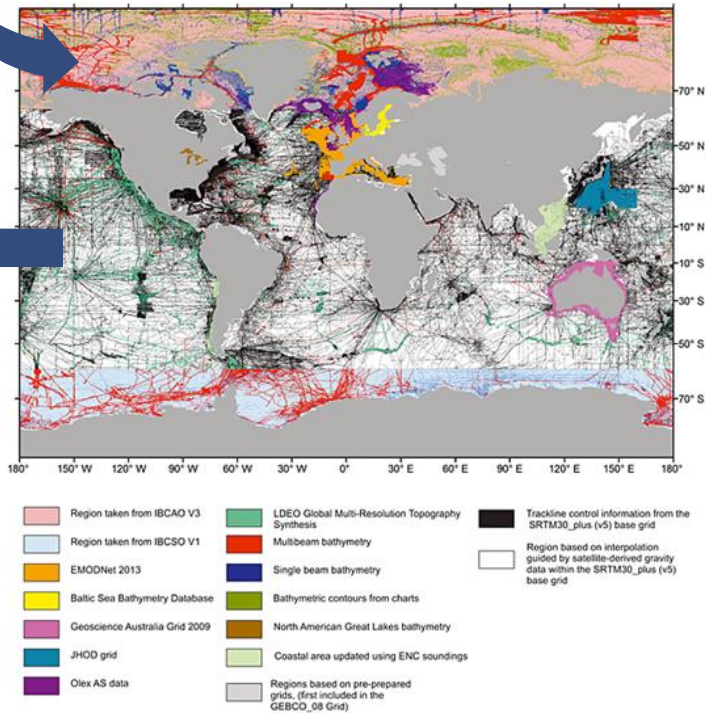
100% of ocean accurately mapped

The need for Seabed 2030





ENC data provided to GEBCO after requests in 2006 (yellow) and 2016 (red)



GEBCO_2014 bathymetric grid
18% based on *in-situ* data

The GEBCO_2014 Source Identifier (SID) grid identifies which grid cells in the are based on soundings and which cells contain predicted depth values

Weatherall, P., K. M. Marks, M. Jakobsson, T. Schmitt, S. Tani, J. E. Arndt, M. Rovere, D. Chayes, V. Ferrini, and R. Wigley (2015), A new digital bathymetric model of the world's oceans, Earth and Space Science, 2, 331–345, doi:10.1002/2015EA000107.

Three Pillars of Seabed 2030

1. Gathering, compiling and publishing bathymetric data
   The regional teams will be responsible for championing regional mapping activities as well as assembling and compiling bathymetric information within their prescribed region.

2. Development of bathymetric data and assembly tools

3. ‘Technology innovation’ and ‘Mapping the Gaps’
   The Seabed 2030 definitive view of the state of seabed mapping, will be used to identify gaps in data coverage, prioritize and champion future survey operations to map the gaps.

THE NIPPON FOUNDATION For Social Innovation → GEBCO-NF ALUMNI → Shell OCEAN DISCOVERY XPRIZE

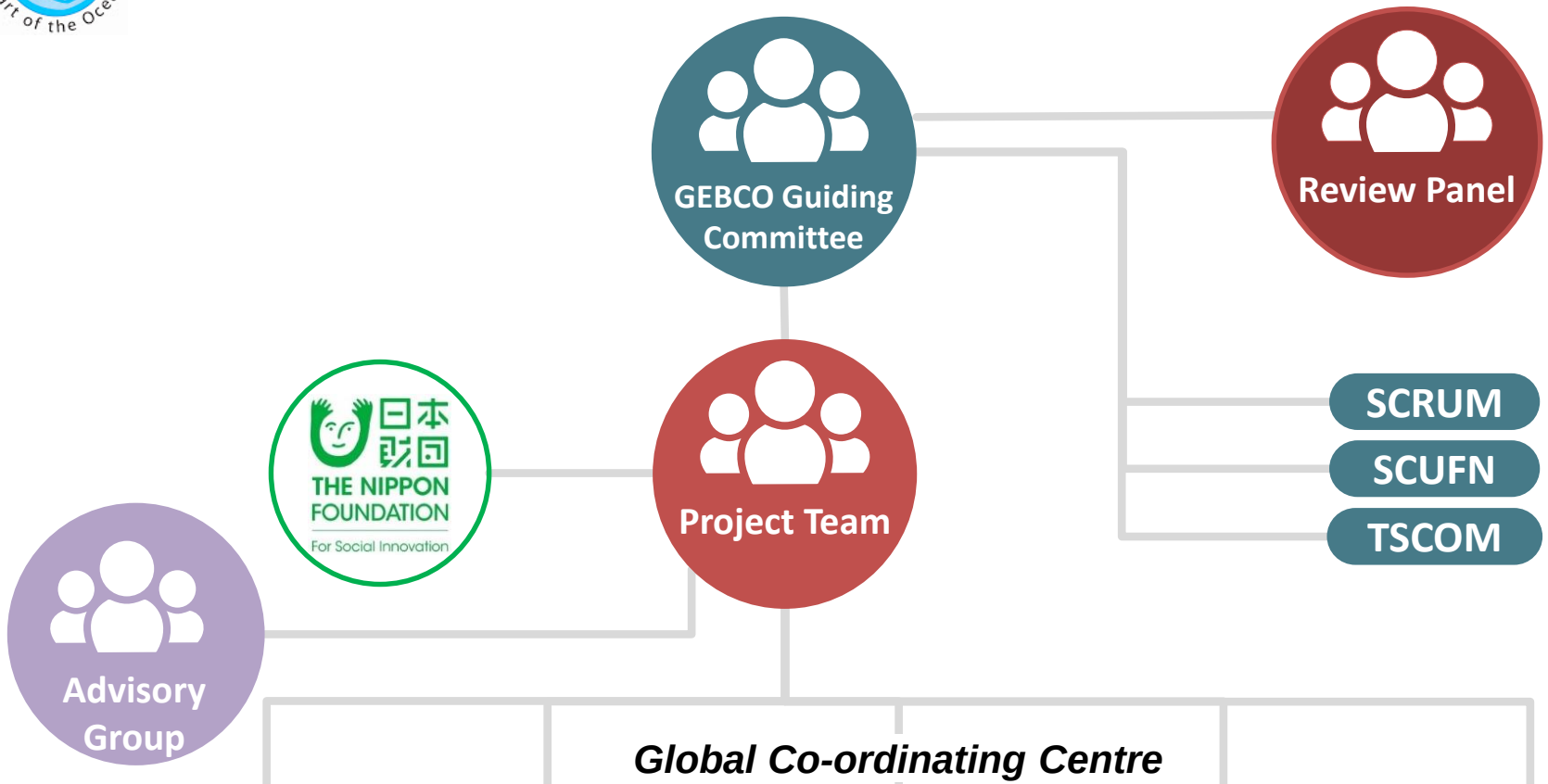
Seabed 2030

MISSION:

To empower the world to make policy decisions, use the ocean sustainability and undertake scientific research based on detailed bathymetric information of the Earth’ s seabed

https://seabed2030.gebco.net/

NF- GEBCO Seabed 2030 Project Structure



Stockholm University, Sweden
Martin Jakobsson

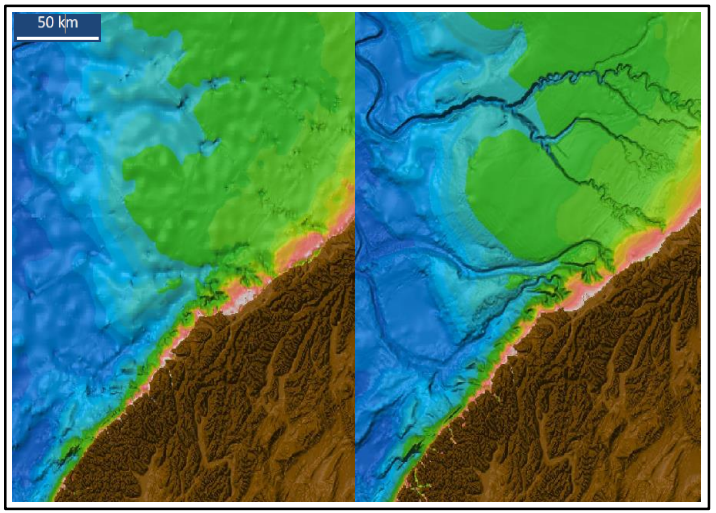
Lamont Doherty Earth Observatory, USA
Vicki Ferrini

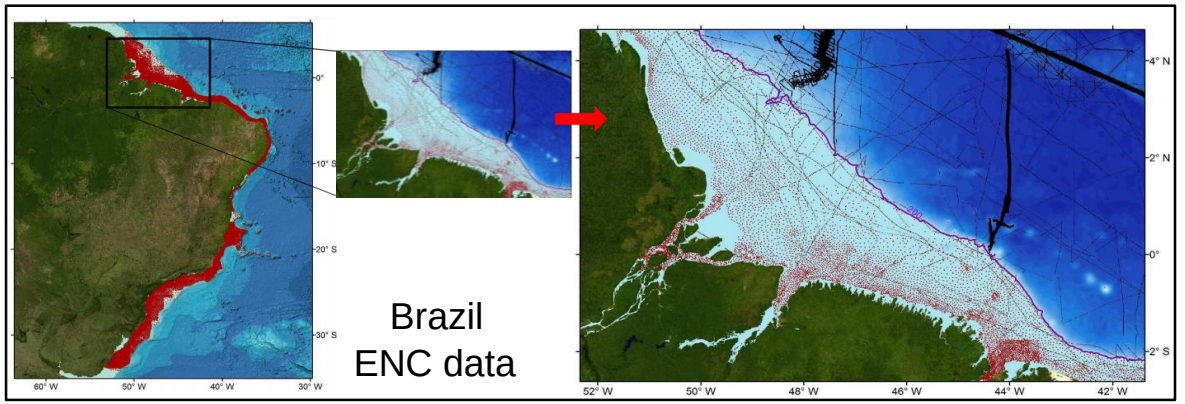
Alfred Wegener Institute, Germany
Boris Dorschel

GNS/NIWA, Wellington, New Zealand
Geoffroy Lamarche

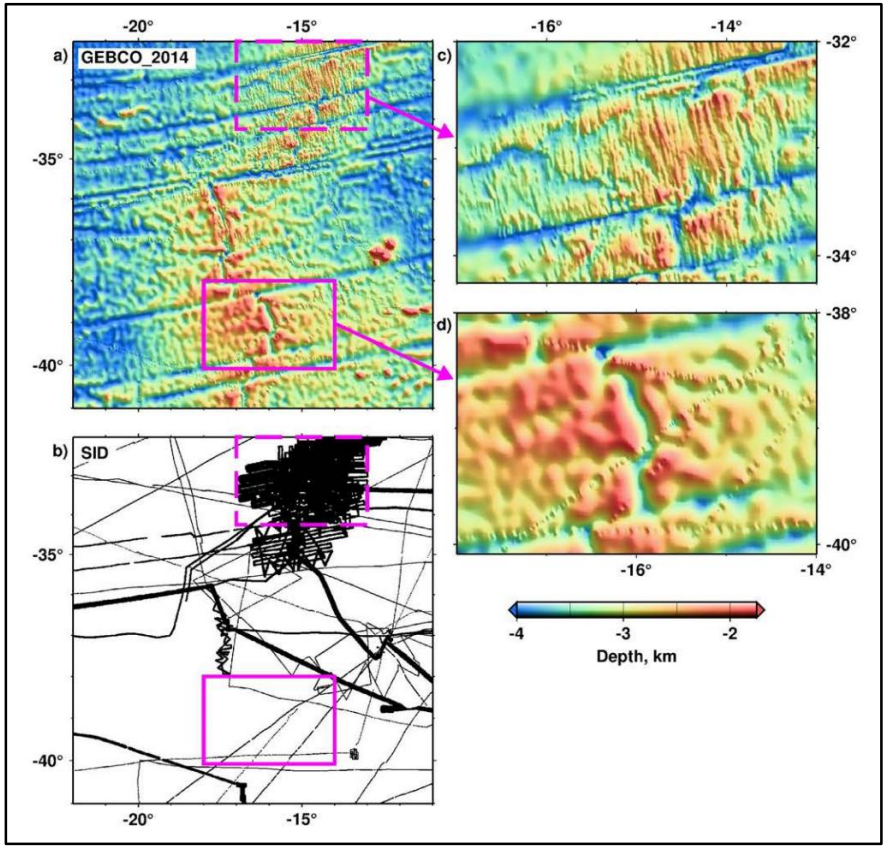
4 Regional Data Assembly & Co-ordination Centres

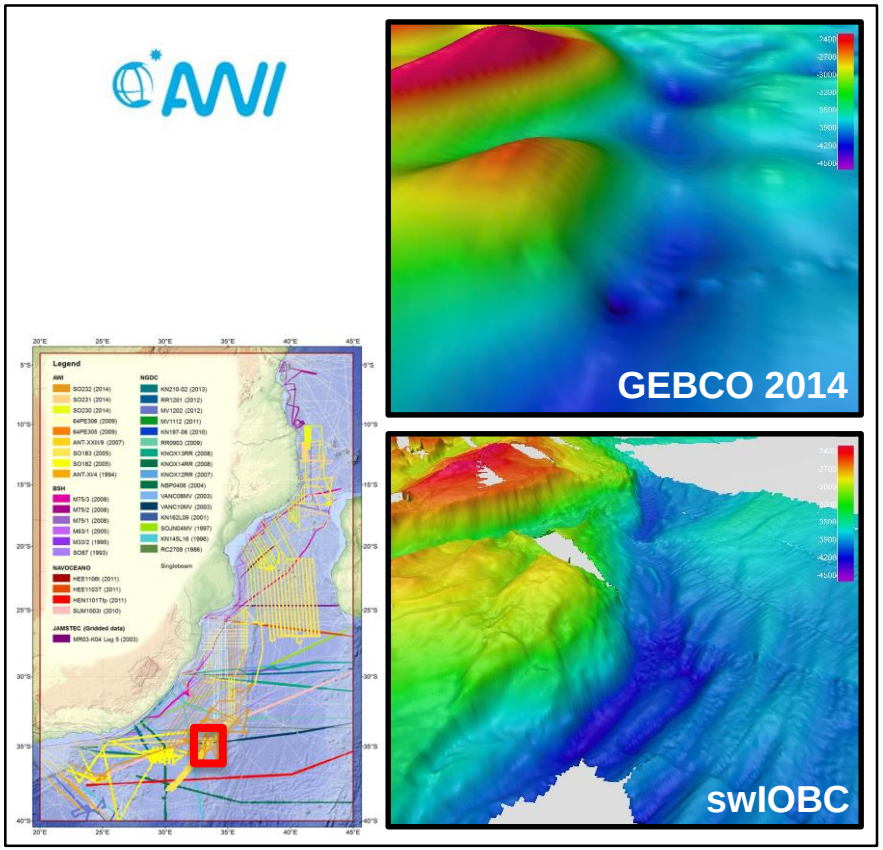
Why DOES GEBCO compile data?





Brazil
ENC data






THANK YOU