



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission

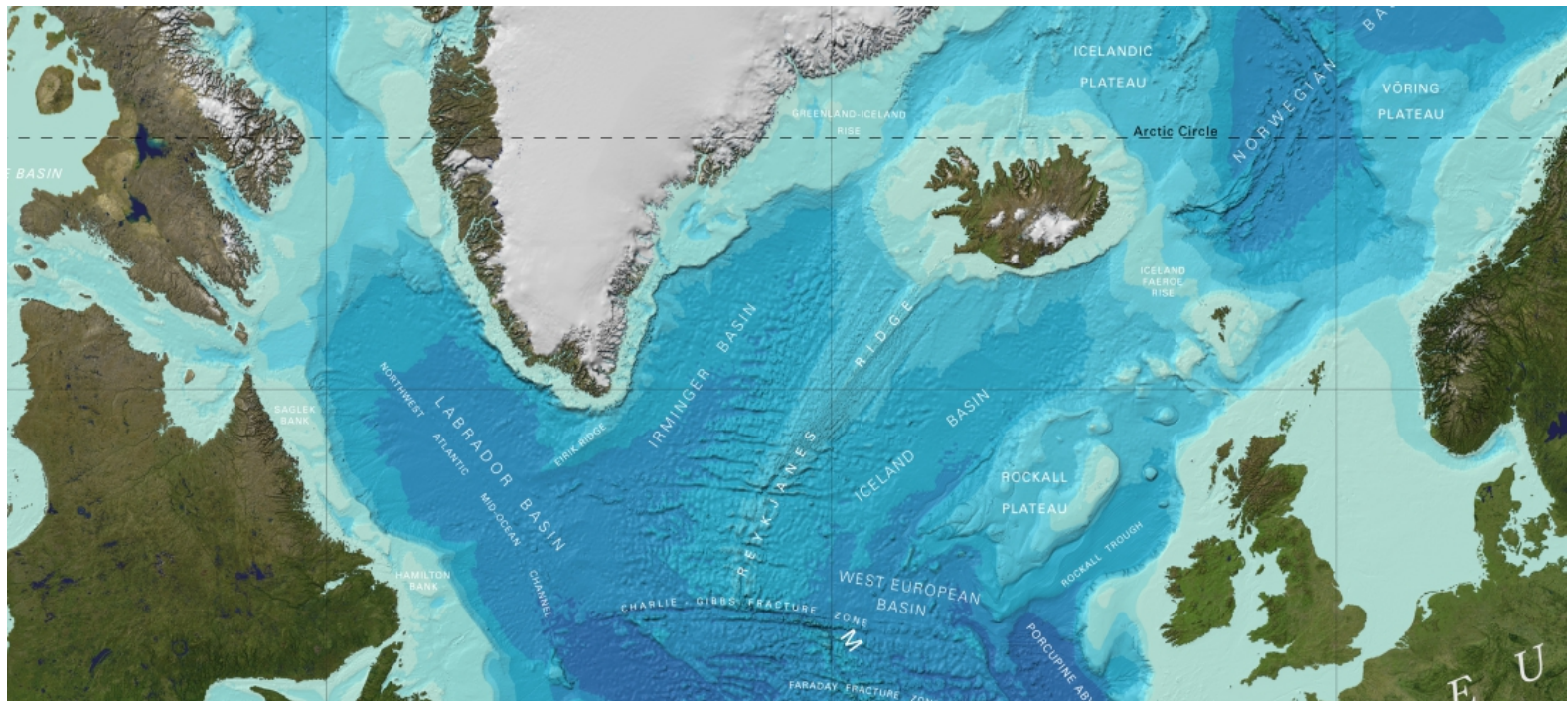
Briefing on GEBCO and the Nippon Foundation-GEBCO Seabed 2030 Project

On behalf of GEBCO: Pauline Weatherall, British Oceanographic Data Centre (BODC), National Oceanography Centre (NOC), Liverpool, UK

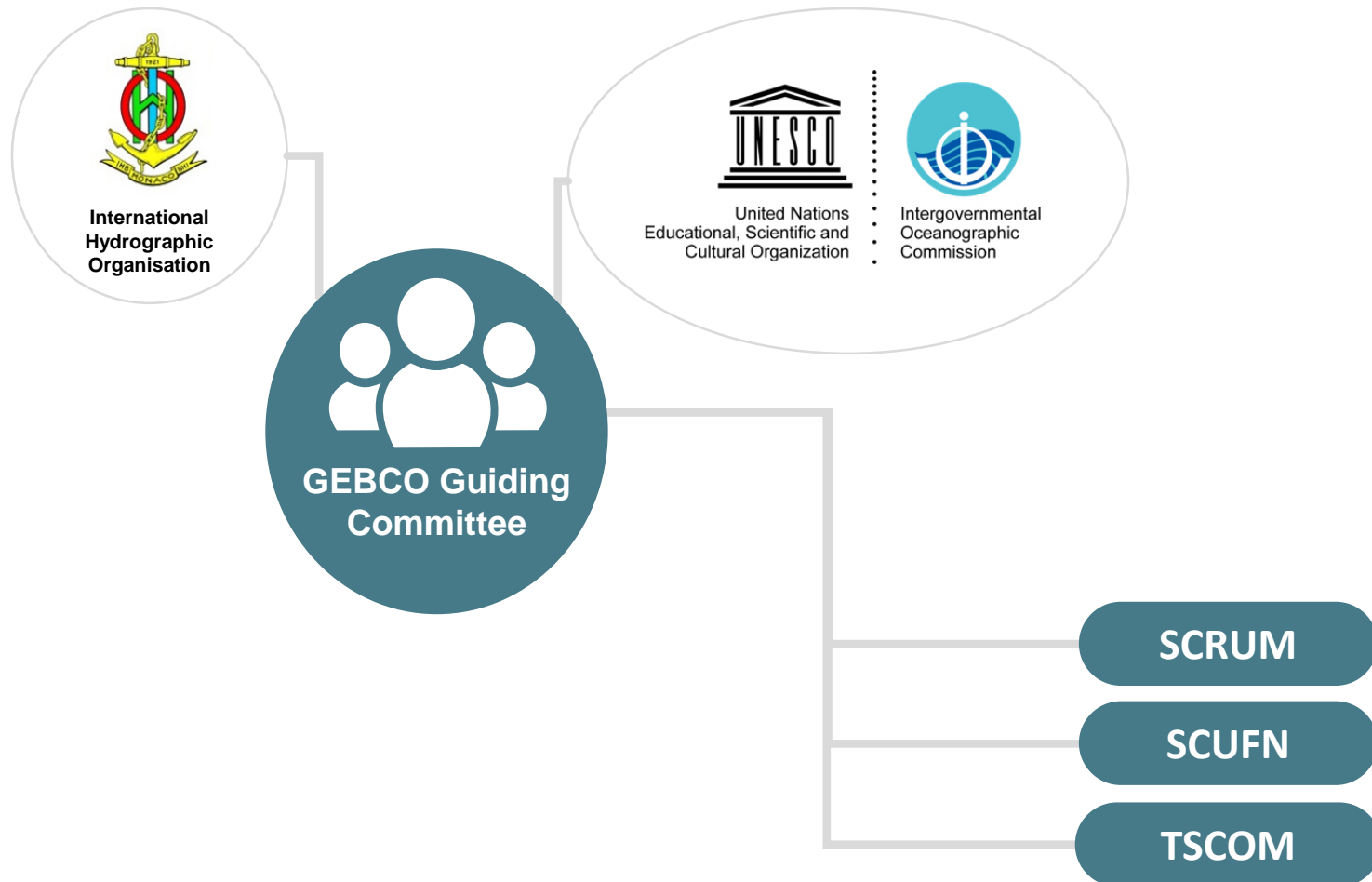
33rd North Sea Hydrographic Commission Meeting, Ostend, Belgium, 27-28 March 2018

What is GEBCO?

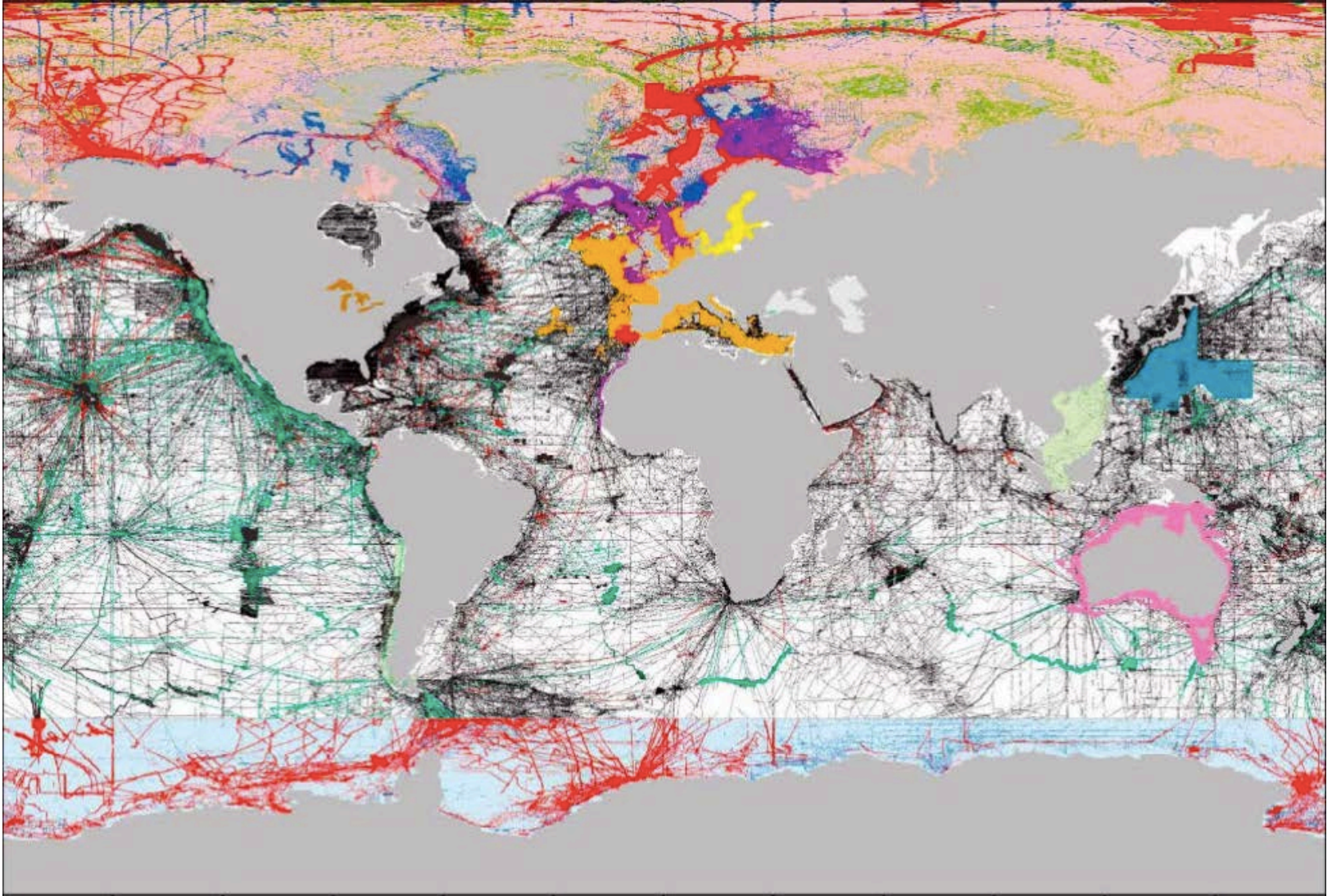
- Operates under the joint auspices of the International Hydrographic Organization (IHO) and Intergovernmental Oceanographic Commission (IOC) of UNESCO
- Makes available: global bathymetric grid, gazetteer of undersea feature names; web services



GEBCO - organisational structure



Source data coverage - current GEBCO grid (GEBCO_2014)





The Nippon Foundation – GEBCO Seabed 2030 Project



June 2016

Mr. Sasakawa, Chairman of The Nippon Foundation, set forth the initiative to partner with GEBCO to cooperatively work towards seeing 100% of the World Ocean mapped by 2030.



June 2017

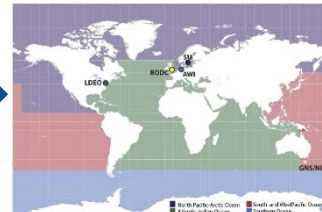
Nippon Foundation – GEBCO Seabed 2030 Project announced



Establishment Phase

1st Aug 2017

Project start



1st Feb 2018



100%
ocean
mapped
2030



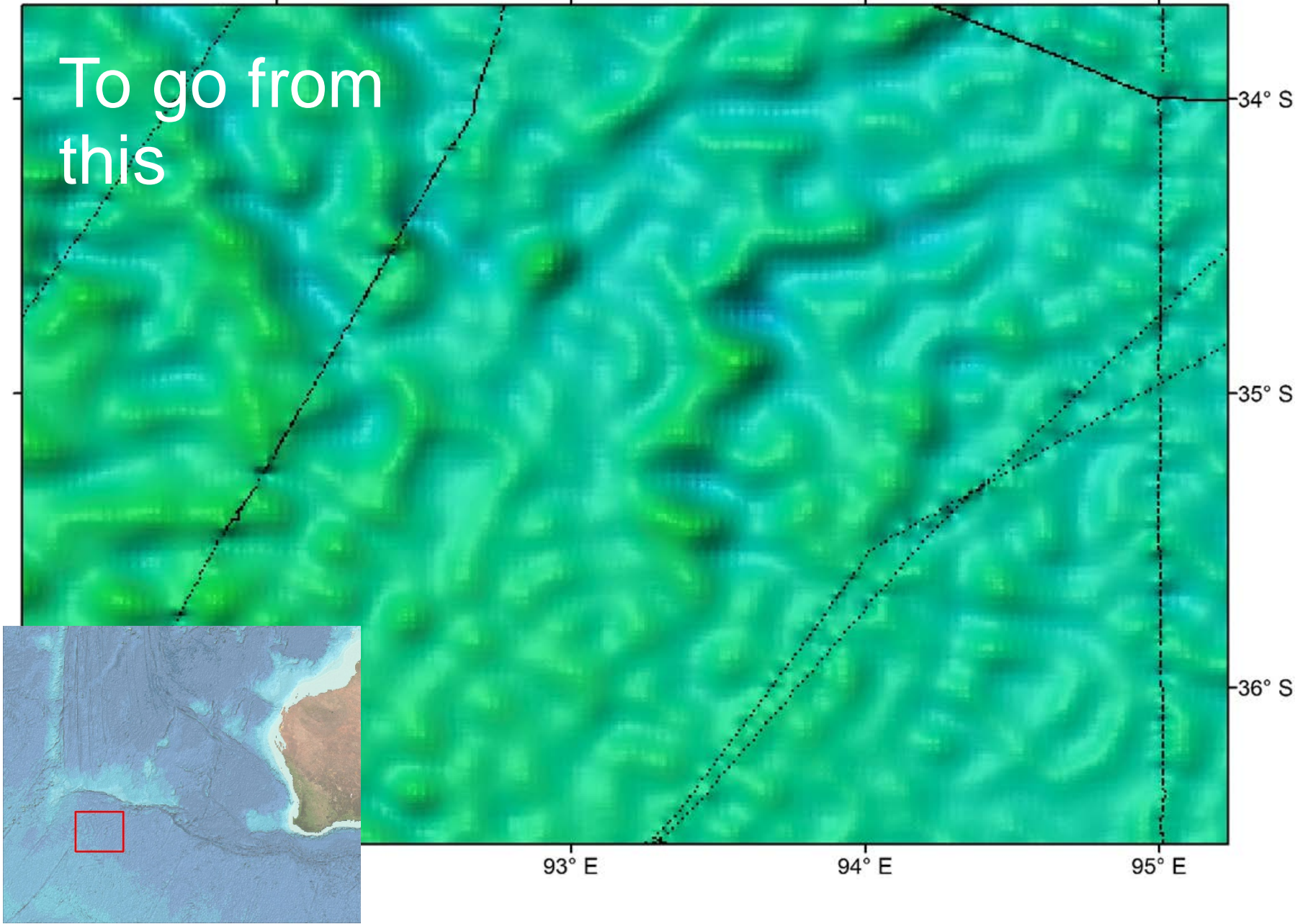
The Nippon Foundation – GEBCO Seabed 2030 Project

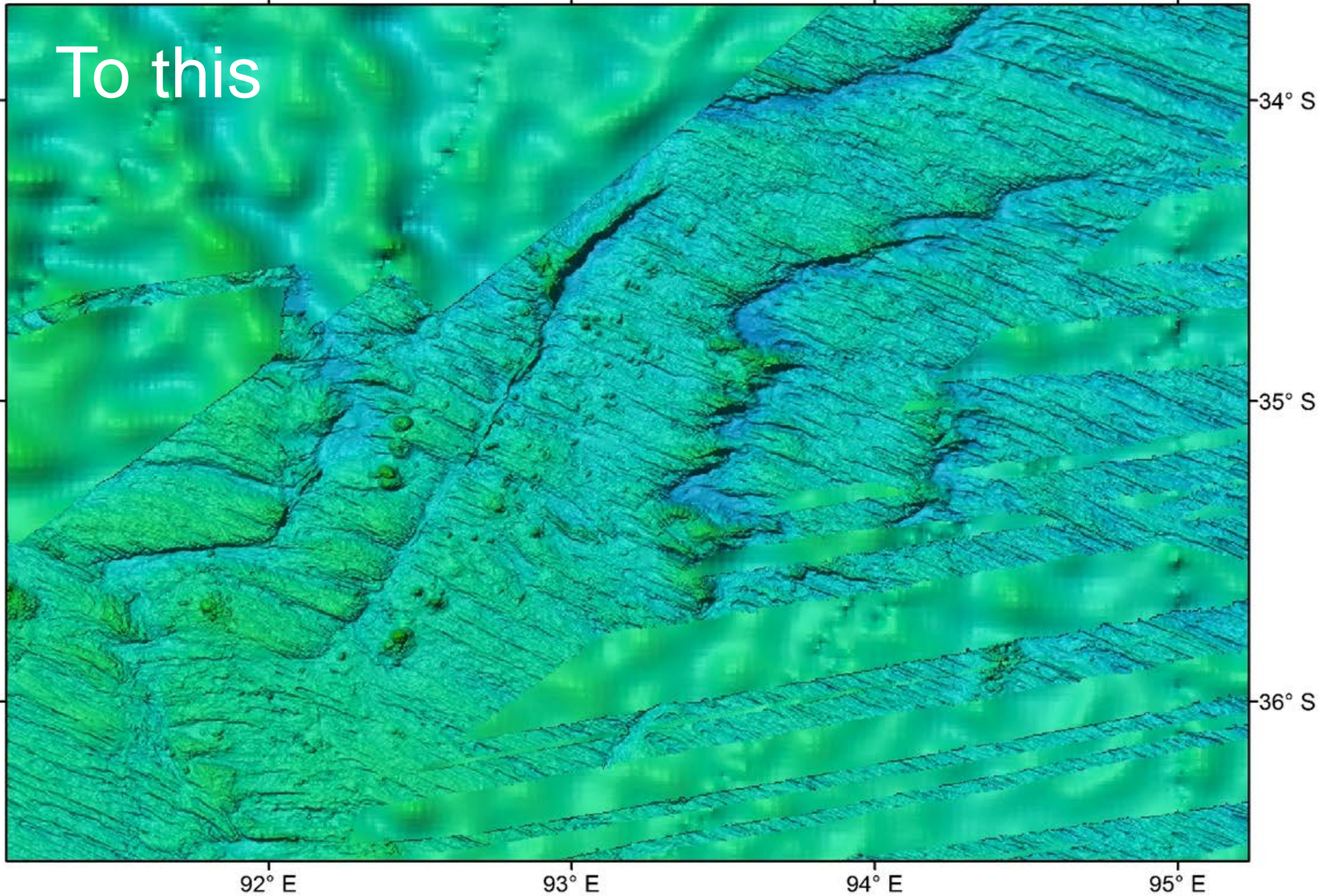


- Collaborative project between the Nippon Foundation and GEBCO
- Operates within the GEBCO framework.
- Mission: Produce the definitive map of the World Ocean floor by 2030 to empower the world to make policy decisions, use the ocean sustainably and undertake research based on detailed bathymetric information of the Earth's seabed.

<https://seabed2030.gebco.net/>

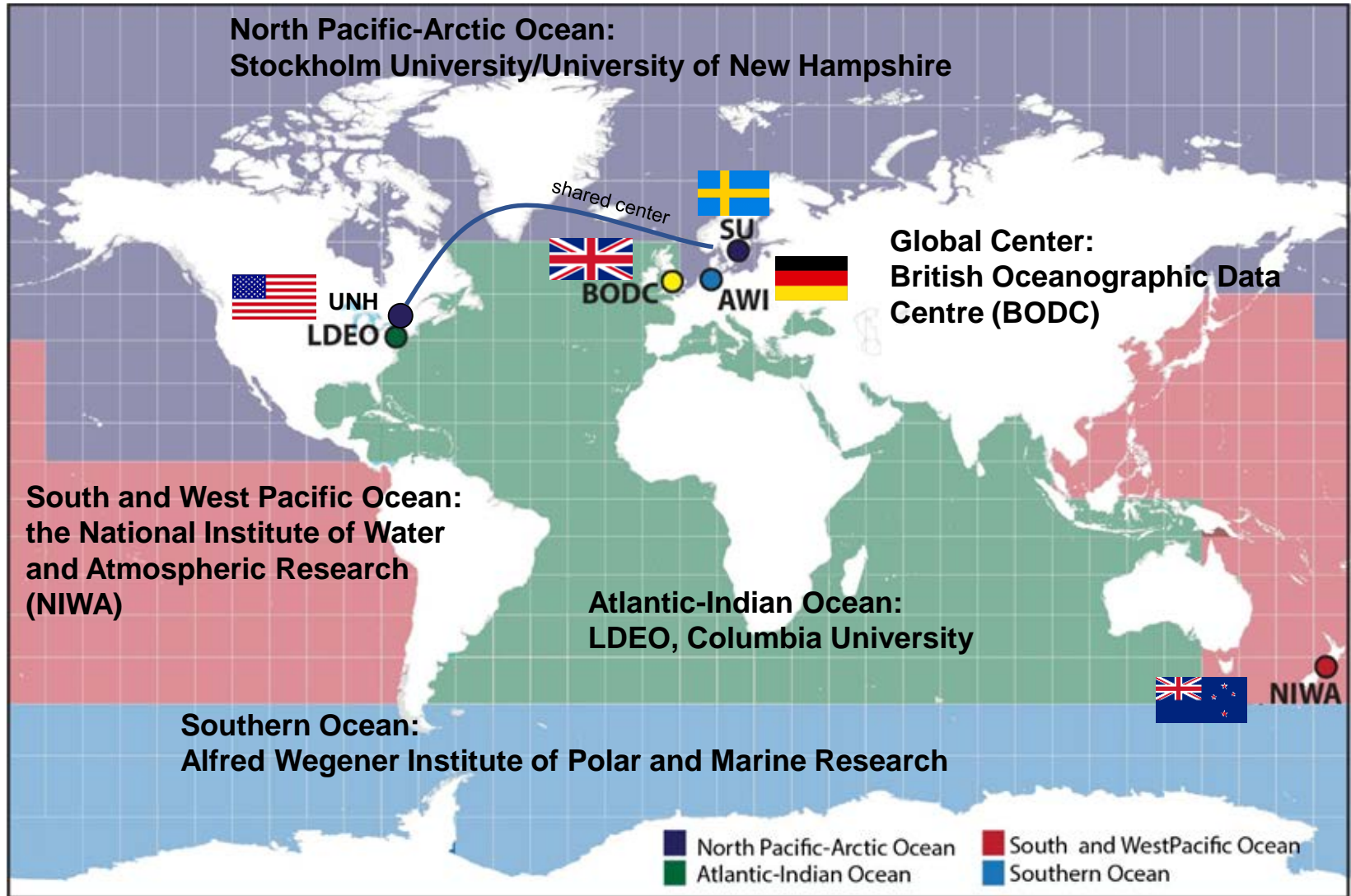
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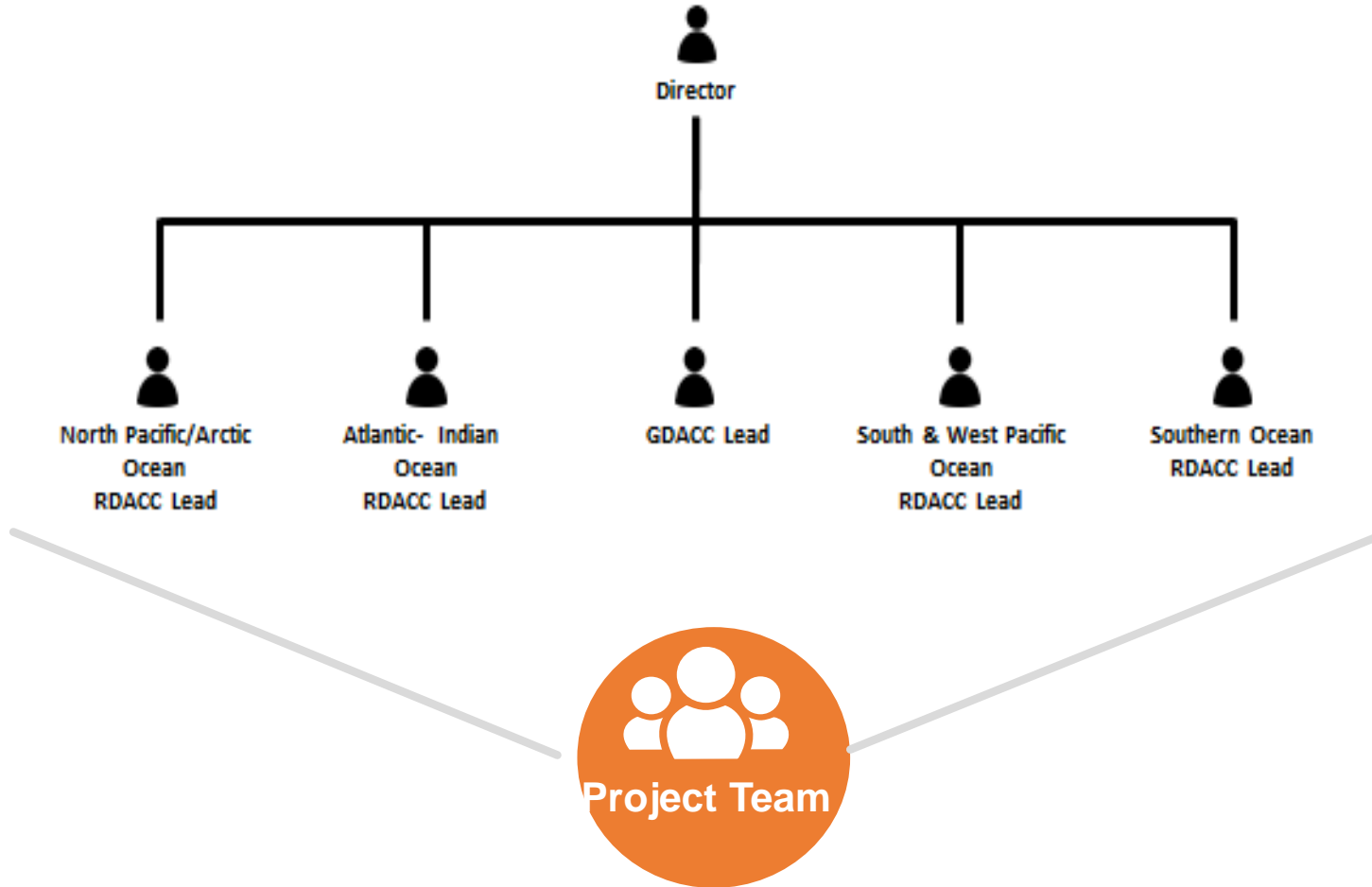


Phase one release of flight MH370 search area data set – made available by Geoscience Australia – overlain on the GEBCO_2014 Grid

Seabed 2030 - Regional and global centres



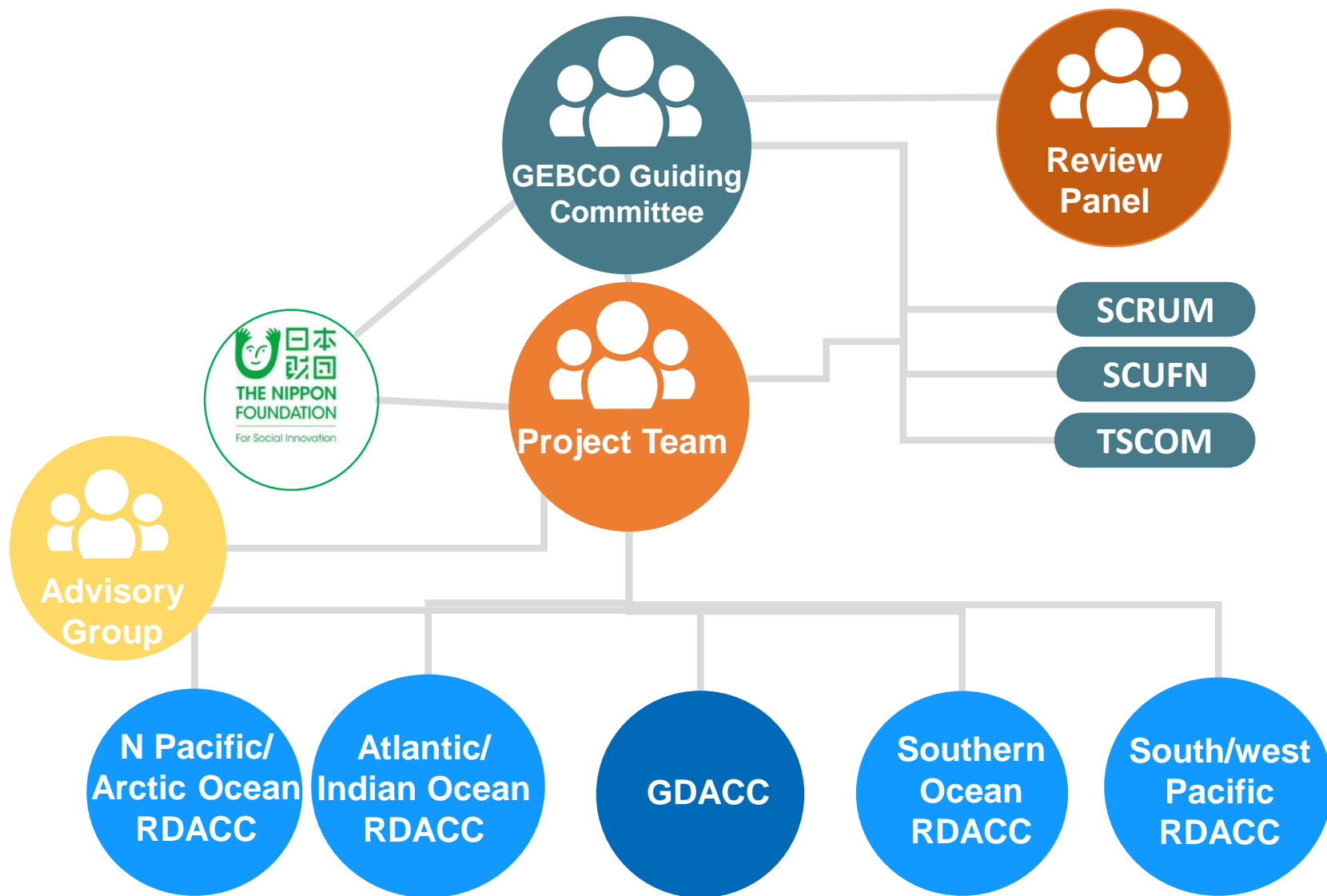
Project Team



Director and centre leads

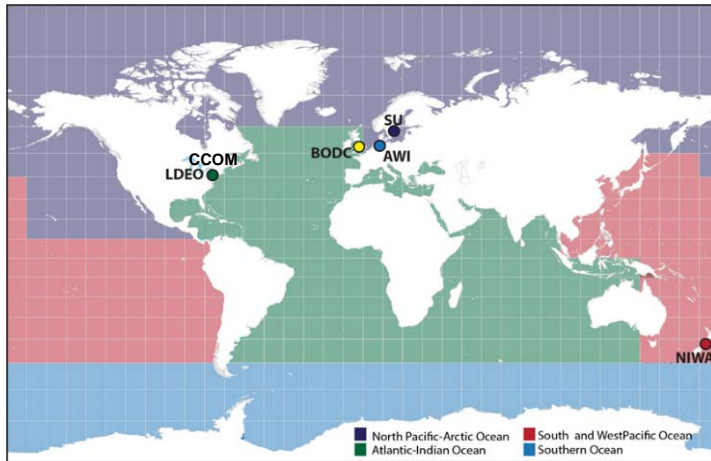
Role	Name	Organization	Seabed 2030 Email
Seabed 2030 Project Director	Satinder Bindra	Un-associated	satinder.bindra@seabed2030.org
Global Centre lead	Helen Snaith	British Oceanographic Data Centre, UK	gdacc@seabed2030.org
Southern Ocean Regional Centre lead	Boris Dorschel	Alfred-Wegener-Institut für Polar-und Meeresforschung, Germany	southern-ocean@seabed2030.org
Atlantic & Indian Oceans Regional Centre lead	Vicki Ferrini	Lamont–Doherty Earth Observatory, USA	atlantic-indian@seabed2030.org
Arctic & N Pacific Oceans Regional Centre co-lead	Martin Jakobsson	Stockholm University, Sweden	arctic-pacific@seabed2030.org
Arctic & N Pacific Oceans Regional Centre co-lead	Larry Mayer	Center for Coastal and Ocean Mapping/Joint Hydrographic Center UNH, USA	
South and West Pacific Oceans Regional Centre lead	Geoffroy Lamarche	National Institute of Water and Atmospheric Research Ltd, New Zealand	pacific@seabed2030.org

Seabed 2030 Structure within GEBCO Framework

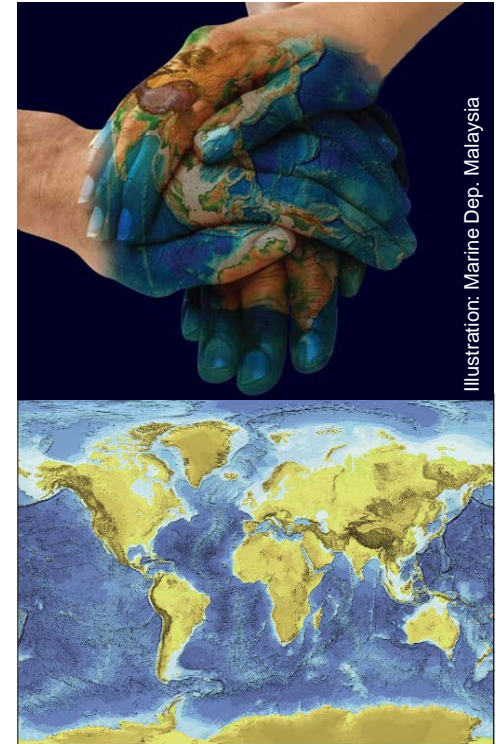


*4 Regional Data Assembly & Co-ordination Centres
+ 1 Global Co-ordinating Centre*

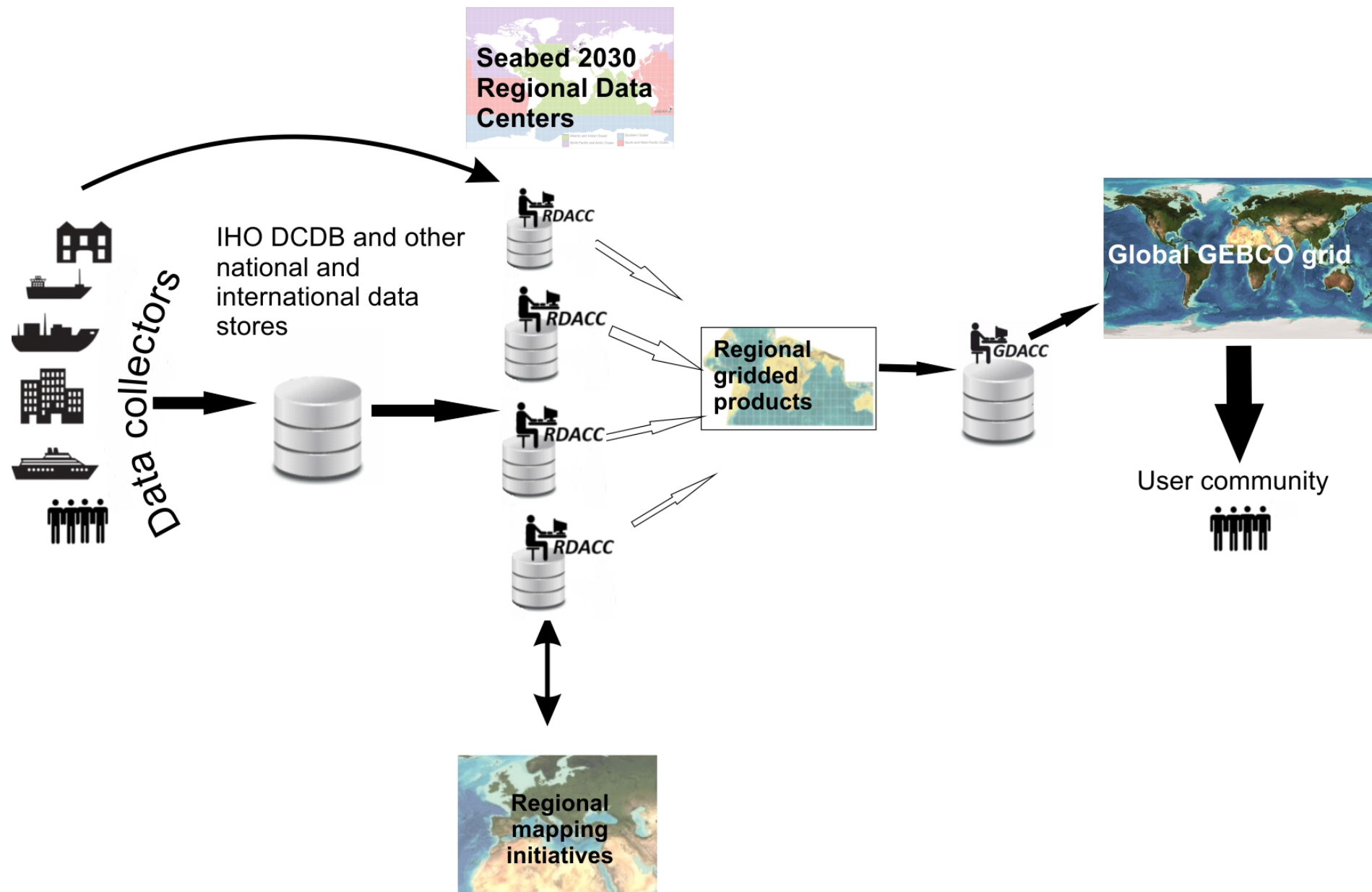
What will the centers do?



- Work with academia, govt., industry, hydrographic community, existing mapping initiatives, crowd-sourcing initiatives etc.
 - What data exist?
 - What is the quality?
 - Where are the gaps?
- Develop bathymetric data processing, assembly and delivery tools when necessary
- Yearly produce updated world ocean maps



Seabed 2030 work flow



At what resolution will Seabed 2030 map the ocean floor?

At the best possible resolution within practical limits

- Gathering bathymetric data gets more difficult as the ocean gets deeper
- An overall minimum requirement for different ocean depths has been set, based on what we can achieve with state-of-the-art multibeam technology

The table below shows the minimum resolutions aimed to be achieved at each depth range by Seabed 2030

Depth Range	Grid-Cell Size	% of World Ocean
0–1500 m	100 × 100 m	13.7
1500–3000 m	200 × 200 m	11
3000–5750 m	400 × 400 m	72.6
5750–11,000 m	800 × 800 m	2.7

Related publications

- Mayer, L.; Jakobsson, M.; Allen, G.; Dorschel, B.; Falconer, R.; Ferrini, V.; Lamarche, G.; Snaith, H.; Weatherall, P.: The Nippon Foundation—GEBCO Seabed 2030 Project: The Quest to See the World's Oceans Completely Mapped by 2030. *Geosciences* 2018, 8, 63, doi:10.3390/geosciences8020063
- Seabed 2030 Road Map:
https://seabed2030.gebco.net/documents/seabed_2030_roadmap_v10_low.pdf
- Seabed 2030 Brochure:
https://seabed2030.gebco.net/documents/seabed2030_brochure.pdf

<https://seabed2030.gebco.net>

Thanks for listening

Any questions?