The Nippon Foundation-GEBCO Seabed 2030 Project

NF-GEBCO Seabed 2030: From Vision to Action

Forum for Future Ocean Floor Mapping

June 2016

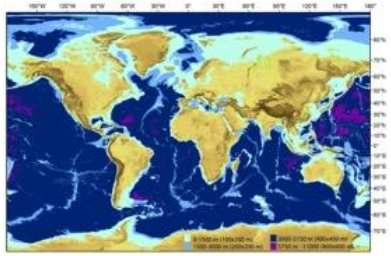
Mr Sasakawa, Chairman of the Nippon Foundation proposed '…to map 100% of the topography of the World Ocean by 2030'

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

June 2017

Nippon Foundation - GEBCO Seabed 2030 Project announced

Project Operational

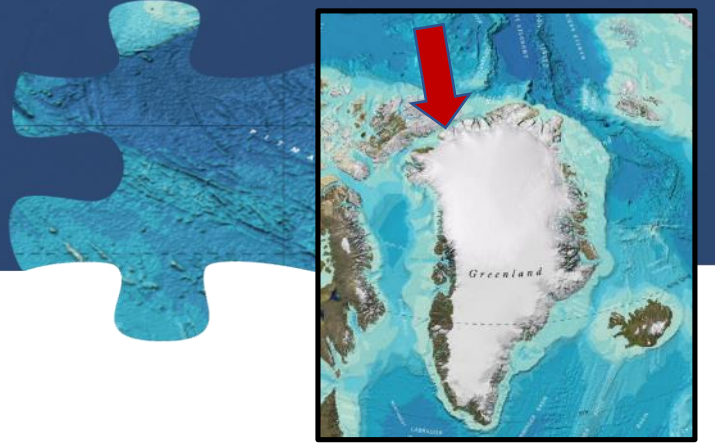


1st February 2018

2030

100% of ocean mapped

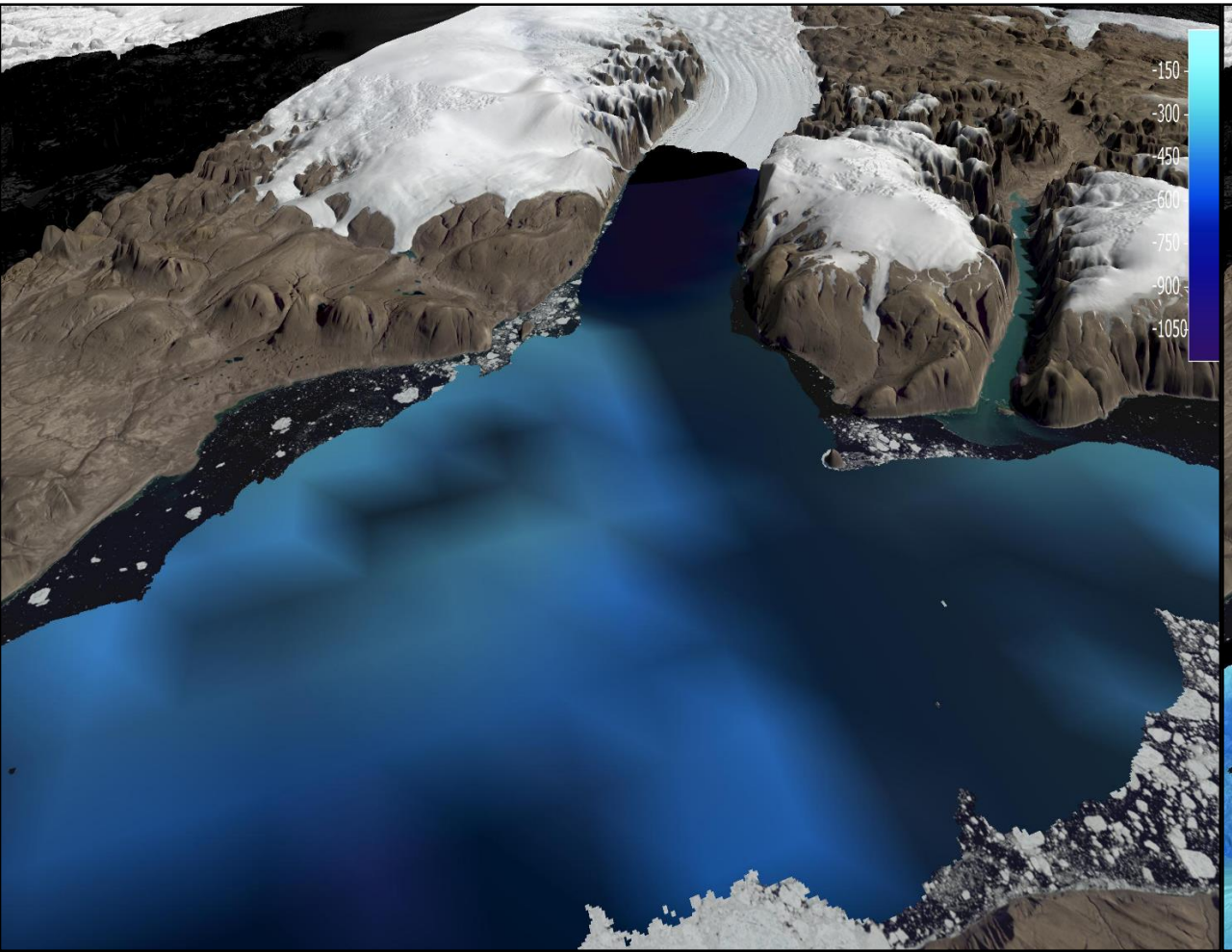
Vision

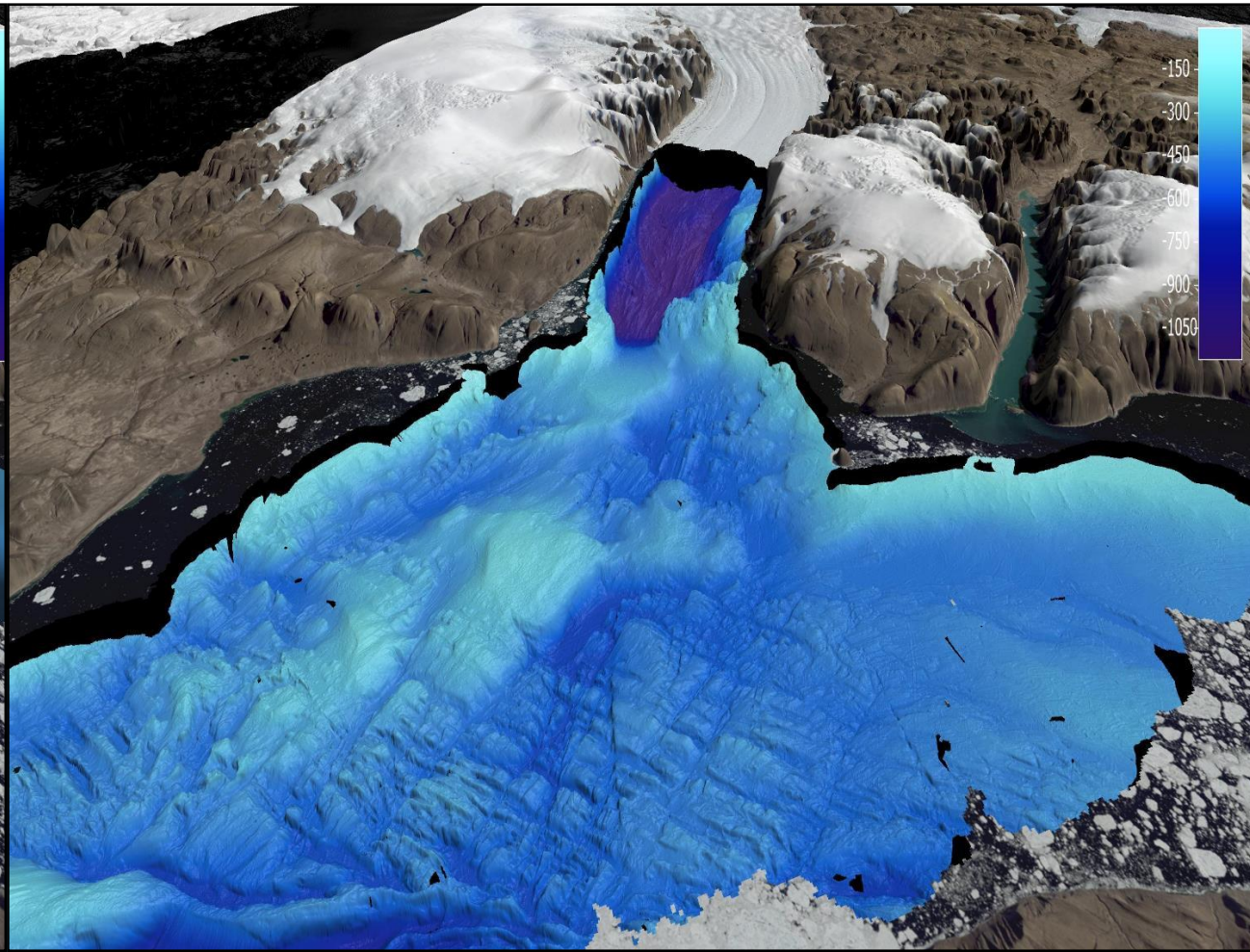


Seabed 2030 vision

From……

To……





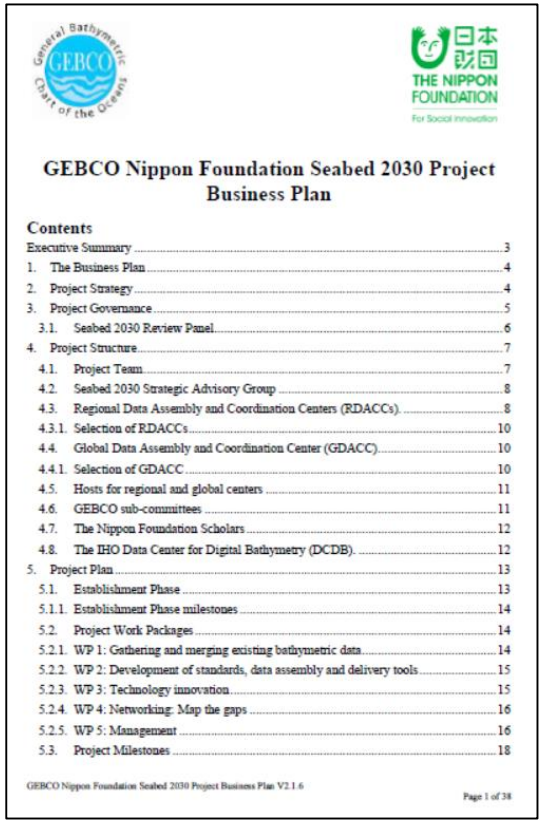
The Seabed 2030 Project

1. How is Seabed 2030 organized?
2. How does Seabed 2030 relate to IBCAO/IBCSO?
3. What is the preferred data flow?
4. What is the mapping target resolution?
5. How much of the world is mapped at the Seabed 2030 target resolutions?

1. How is Seabed 2030 organized?

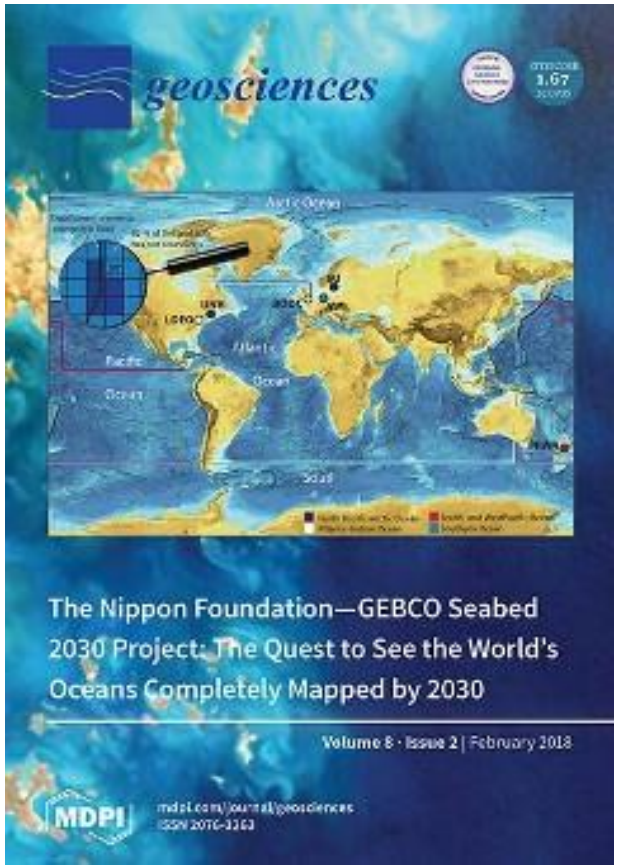
Roadmap https://seabed2030.gebco.net/

Business Plan



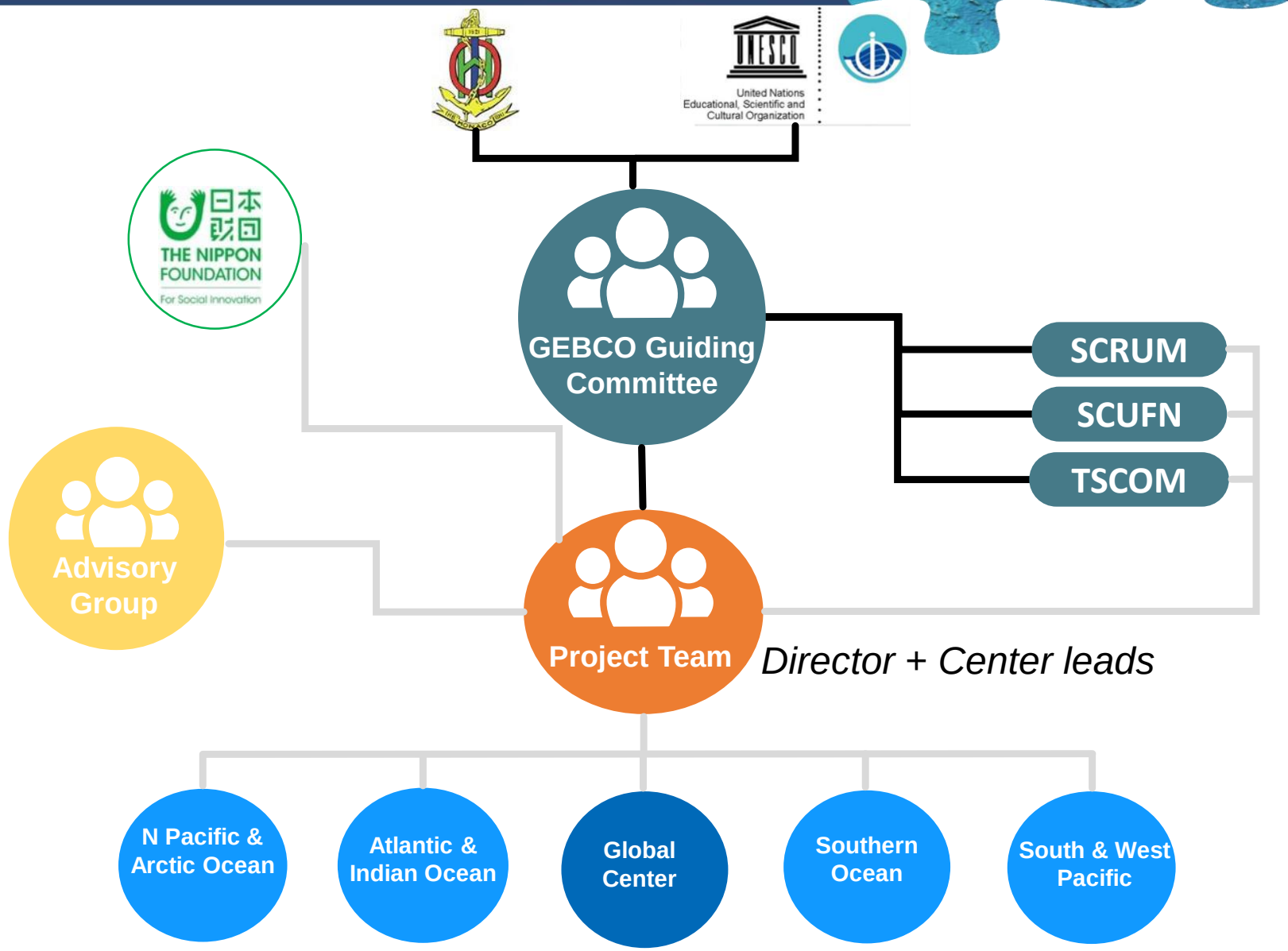
GEBCO Nippon Foundation Seabed 2030 Project Business Plan

Contents



1. How is Seabed 2030 organized?

- **4** Regional Data Assembly & Coordination Centres
- **1** Global Data Assembly and Coordination Centre
- **1** International data repository: IHO Data Centre for Digital Bathymetry (DCDB)



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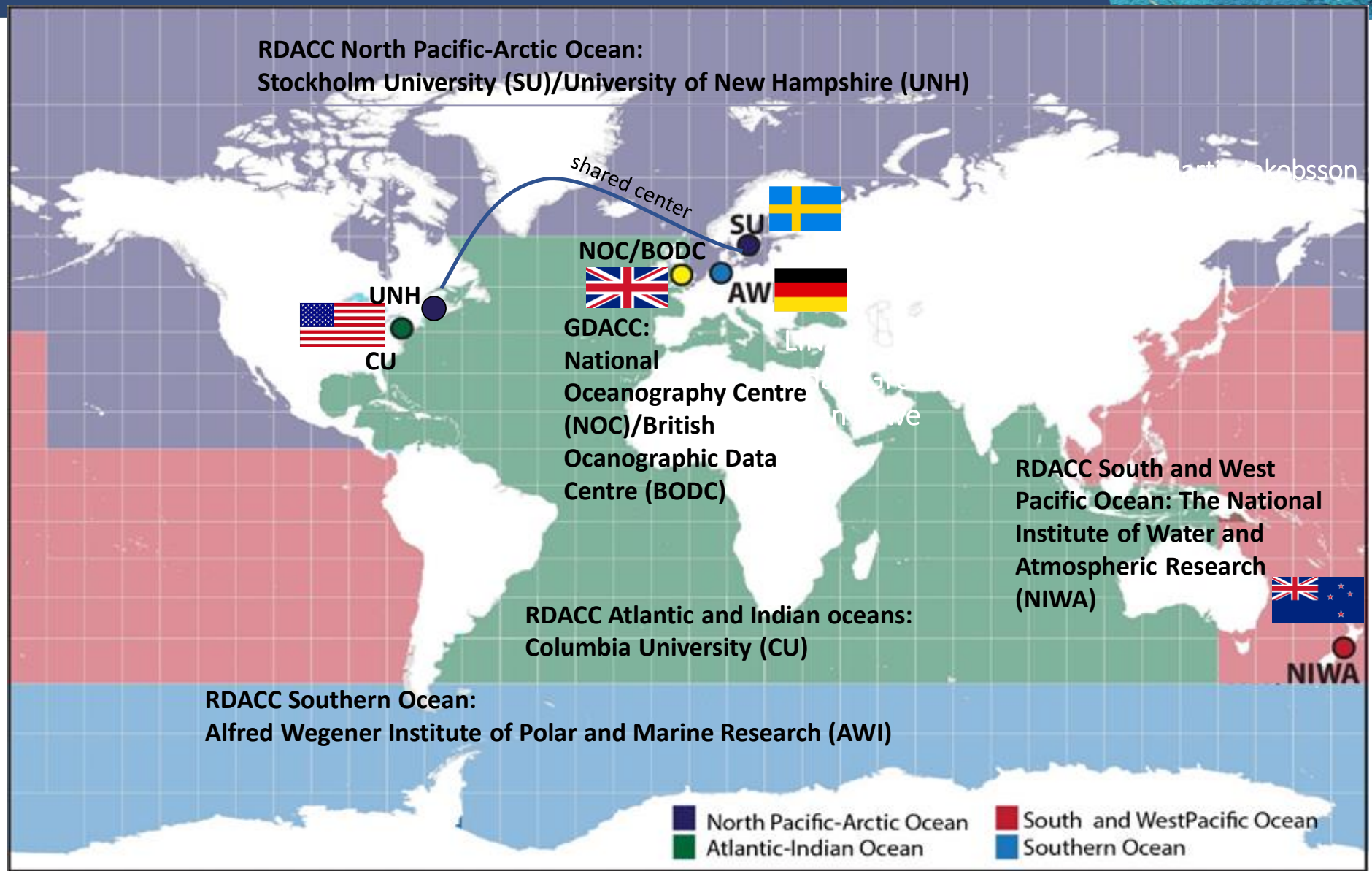


Southern Ocean

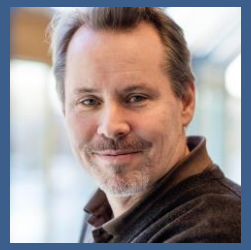
Boris Dorschel

Jan Erik Arndt

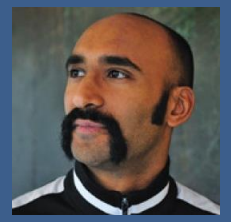
Simon Dreutter

Laura Hehemann

Arctic and Northern Pacific Oceans

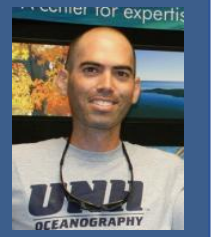


Larry Mayer



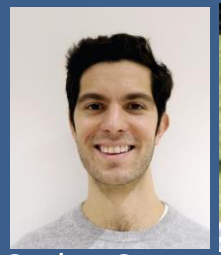
Rezwann Mohammad

Caroline Bringesparr



Tomer Ketter

Björn Eriksson



Carlos Castro

Paul Johnson

AWI

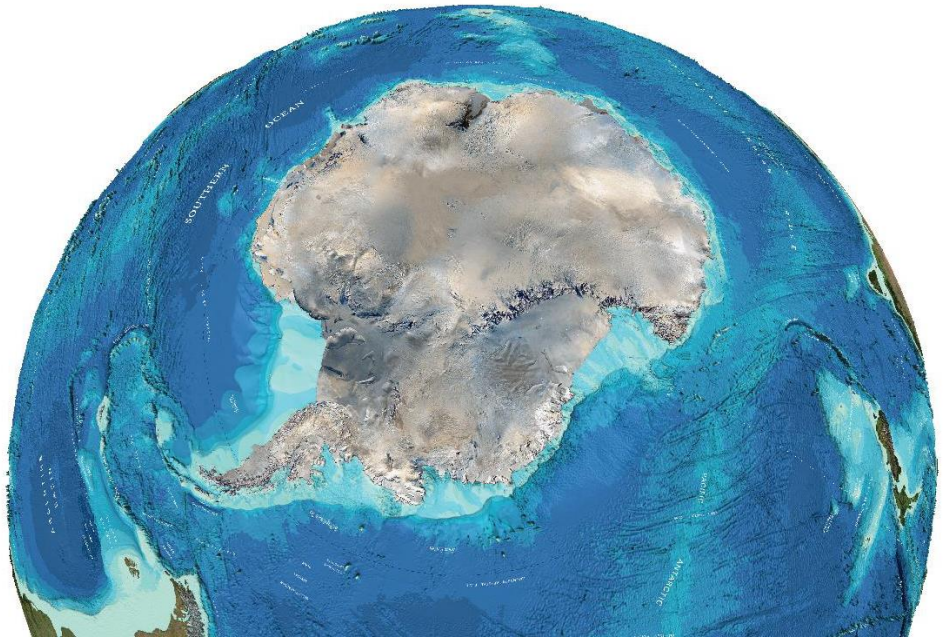
Stockholm University

People at the Southern Ocean, Arctic and Northern Pacific Ocean

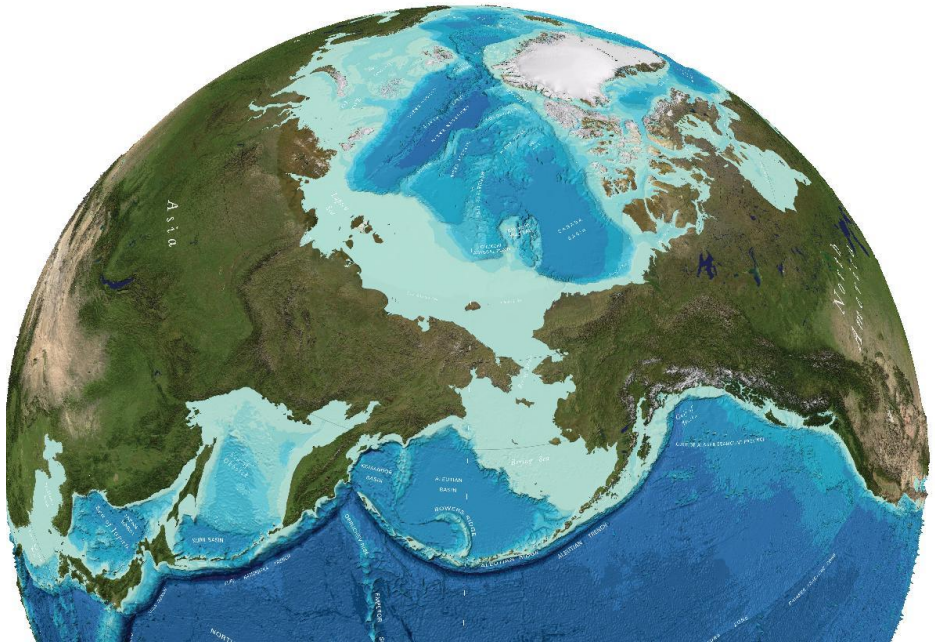
2. How does Seabed 2030 relate to IBCAO/IBCSO?

The Seabed 2030 project organization originates from the concept of a **“Regional Mapping Project”** and GEBCO’s structure within its parent organizations the International Hydrographic Organization (IHO) and Intergovernmental Oceanographic Commission of UNESCO (IOC)

International Bathymetric Chart of the Southern Ocean (IBCSO)

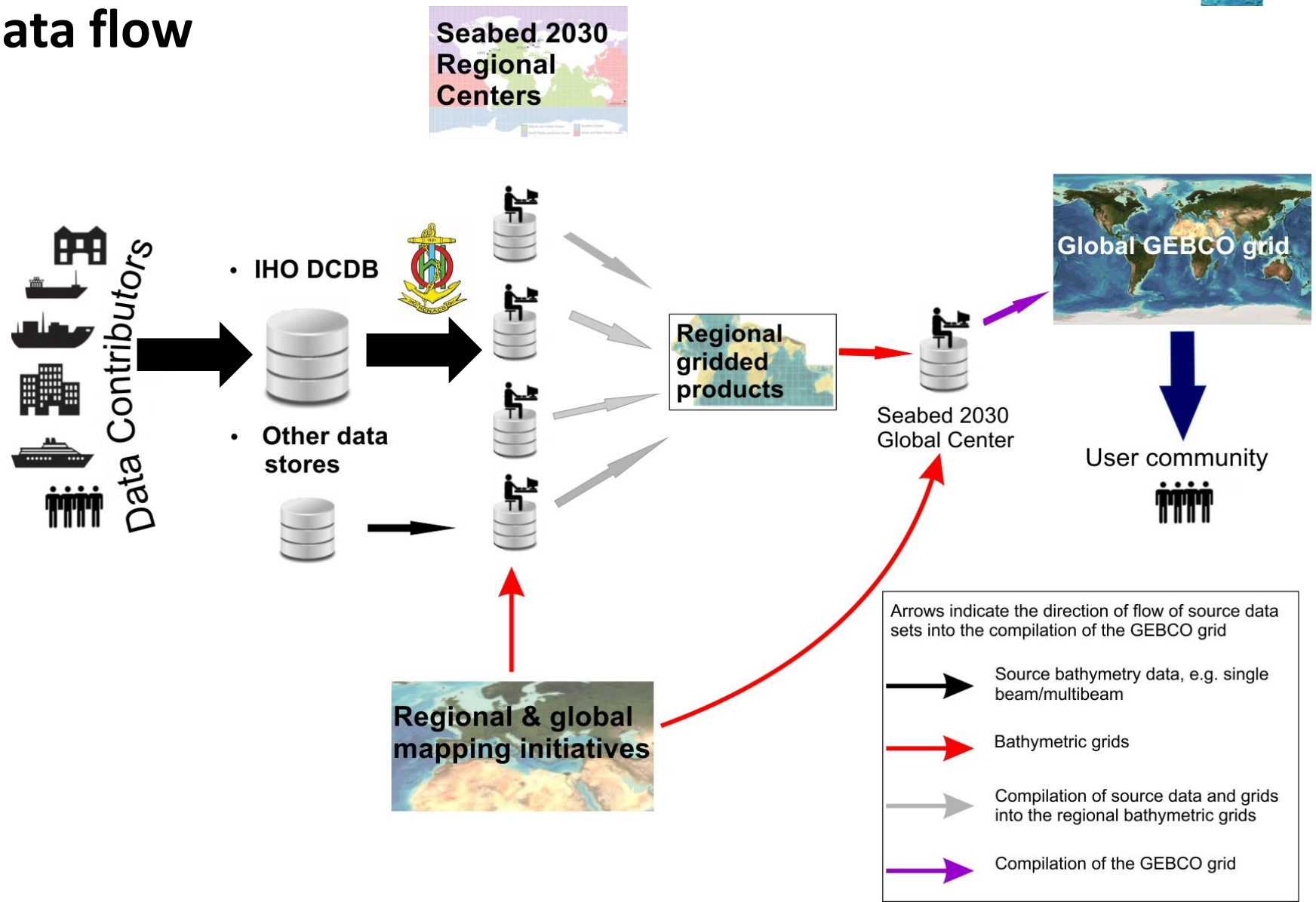


International Bathymetric Chart of the Arctic Ocean (IBCAO)

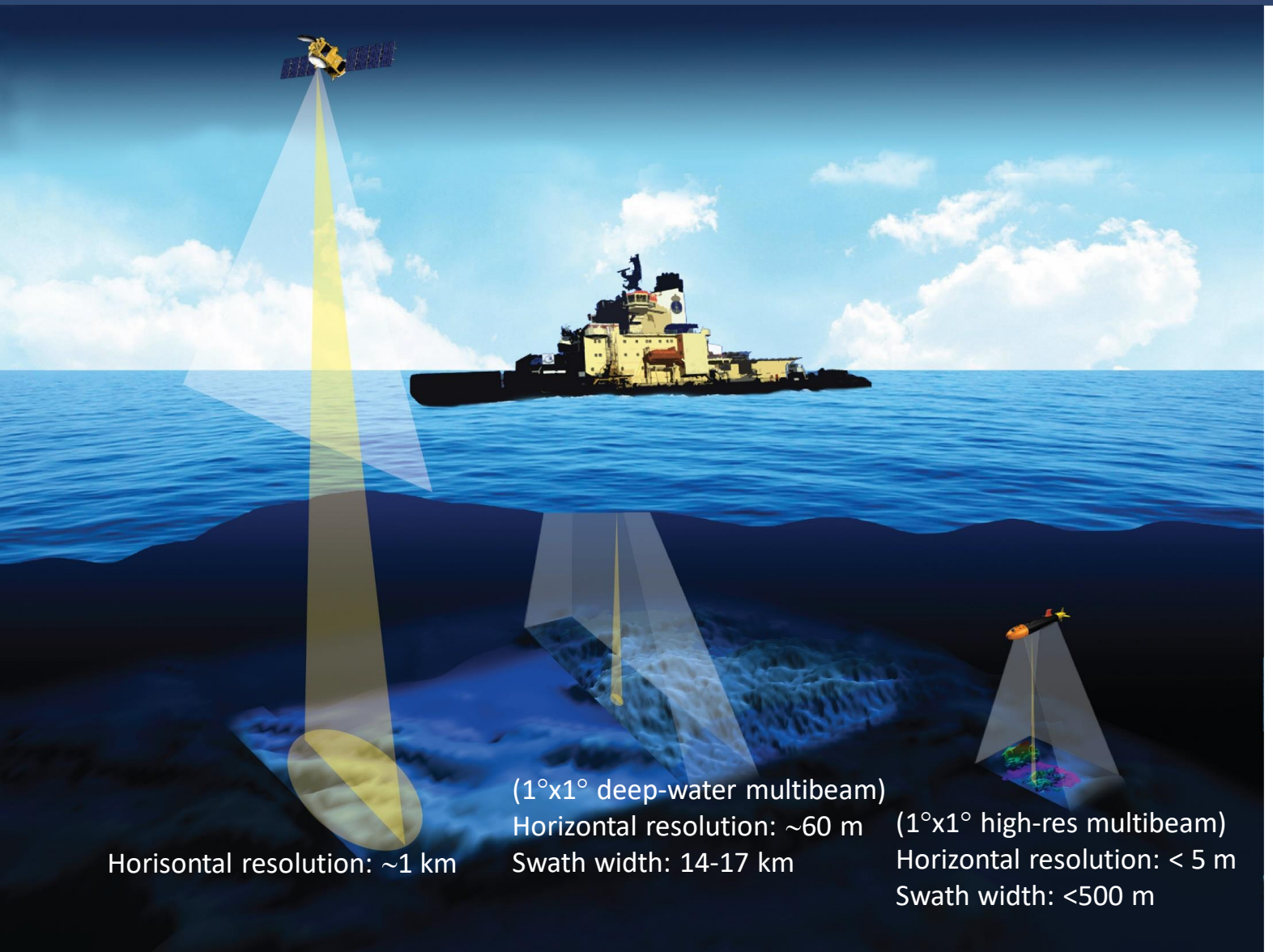


3. What is the preferred data flow?

Preferred data flow



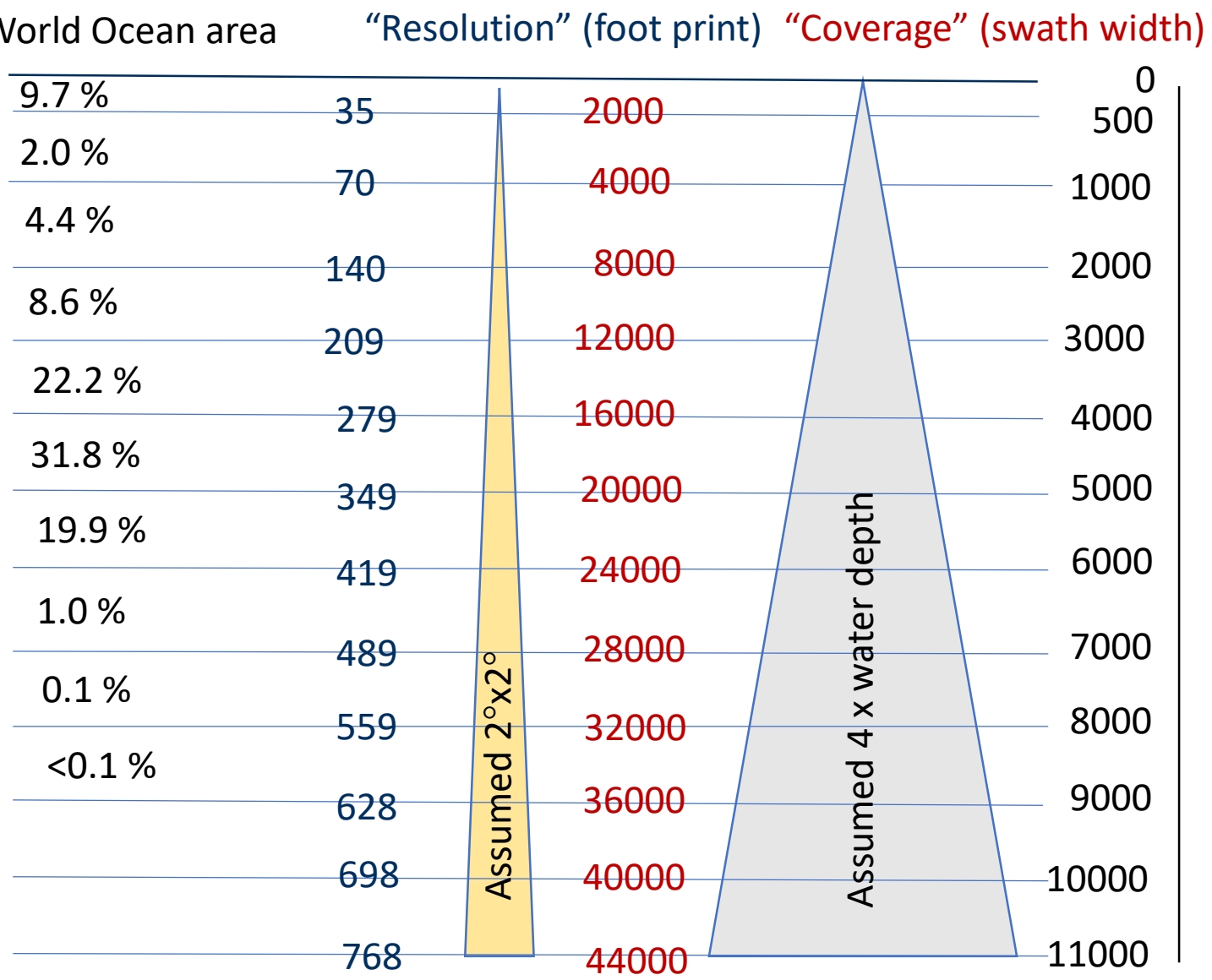
4. What is the mapping target resolution?



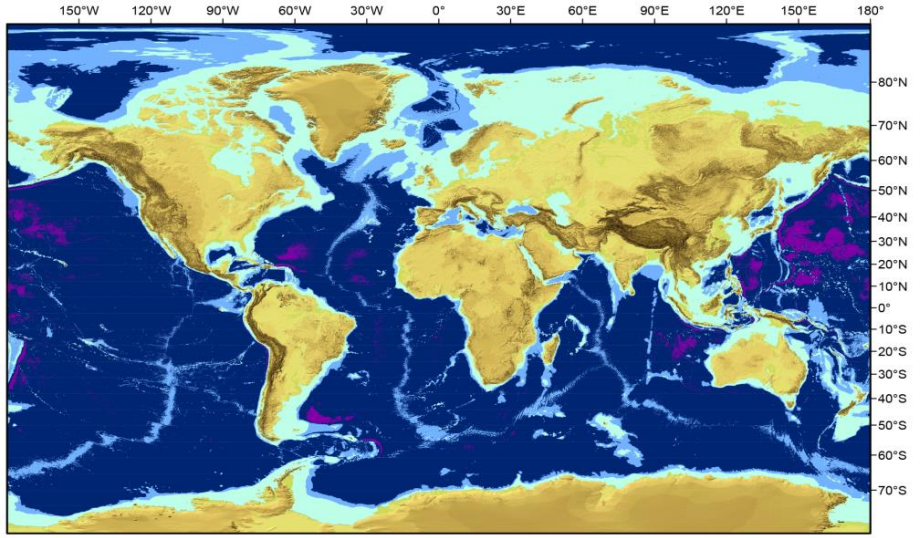
We set the target resolution based on what a modern multibeam system installed in a vessel can achieve

4. What is the mapping target resolution?

Mapping with surface vessel, deep water multibeam
(12 kHz 2°x 2°, 60 ° from nadir)

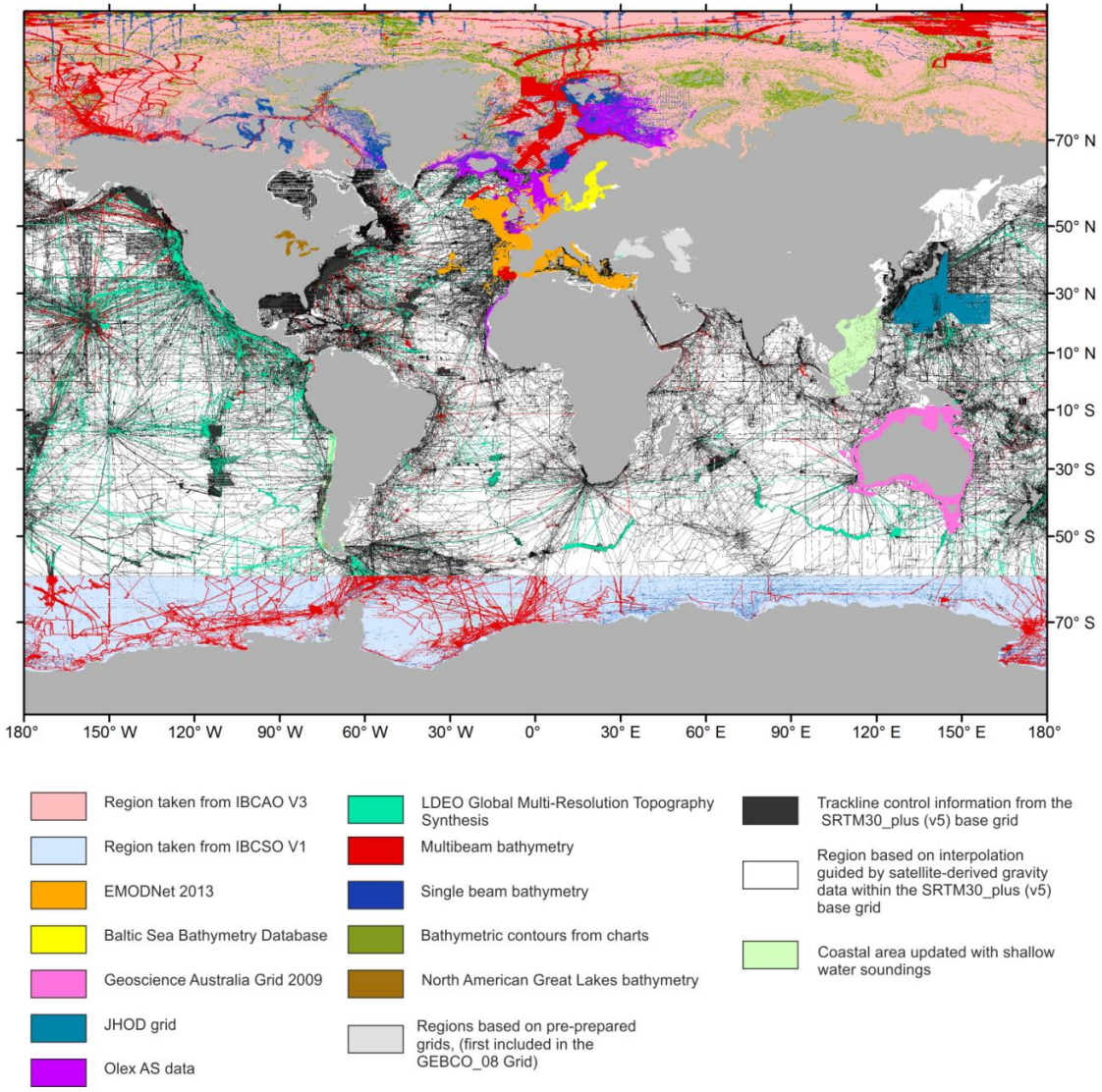


Target resolutions



- 100x100 m (0-1500 m)
- 200x200 m (1500-3000 m)
- 400x400 m (3000-5750 m)
- 800x800 m (5750-11000 m)

5. How much of the world is mapped at the Seabed 2030 target resolutions?



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

known

unknown

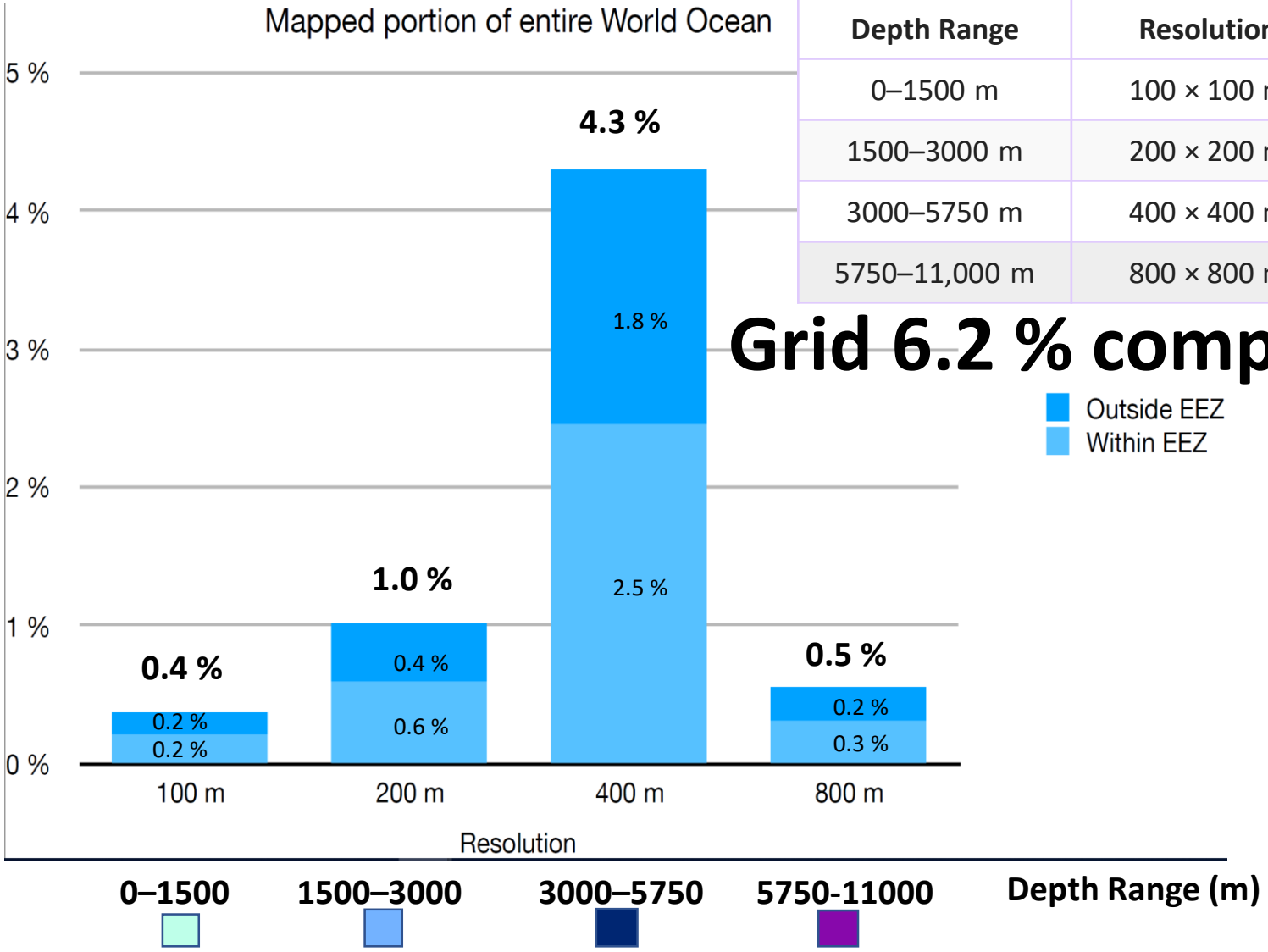
X: Data in GEBCO/IBCAO/IBCSO products

Y: Data that exists but are not yet integrated

- Public
- Embargoed

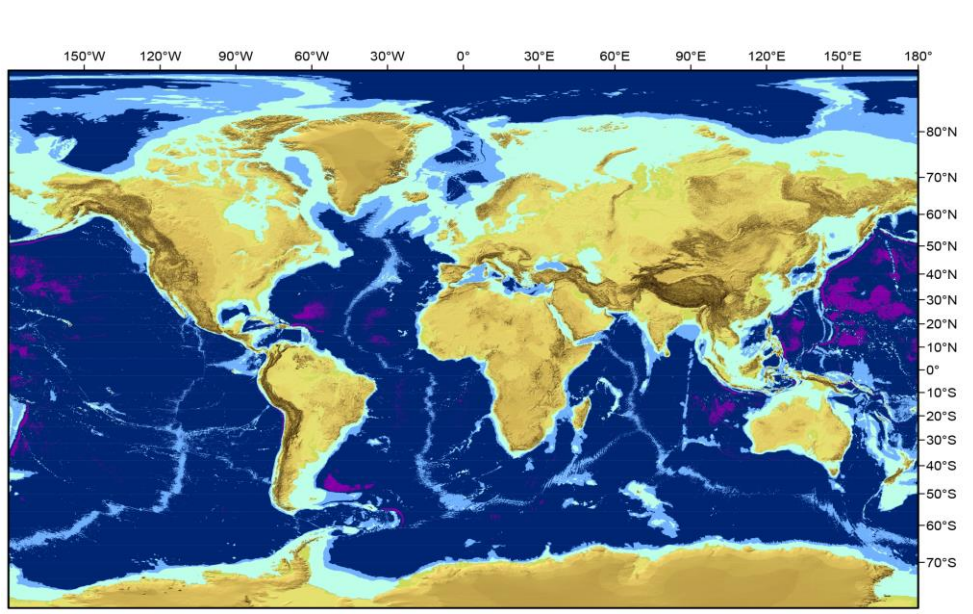
Z: Data that must be acquired

5. How much of the world is mapped at the Seabed 2030 target resolutions?

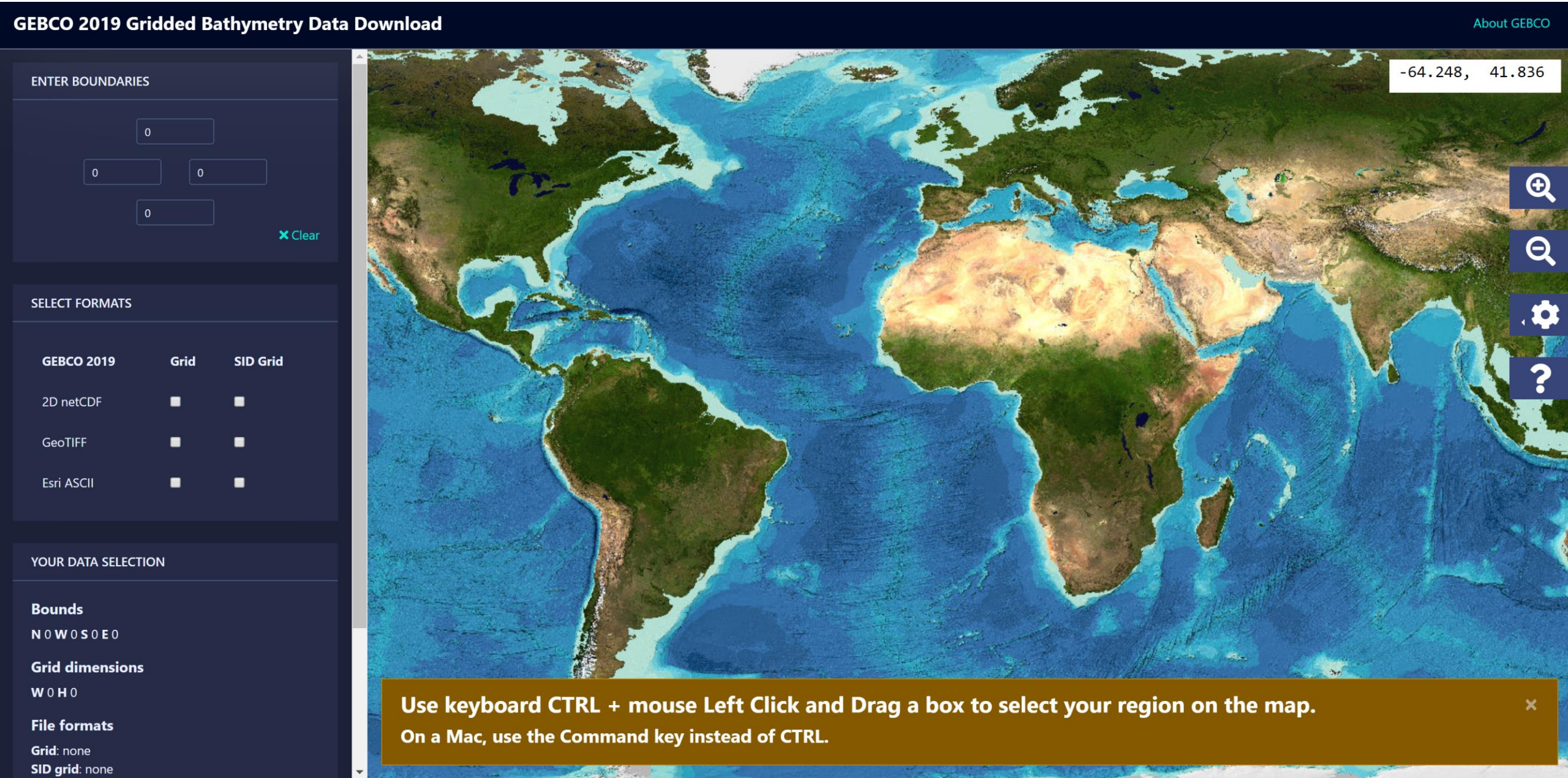


Depth Range	Resolution	% of ocean
0–1500 m	100 × 100 m	13.7
1500–3000 m	200 × 200 m	11
3000–5750 m	400 × 400 m	72.6
5750–11,000 m	800 × 800 m	2.7

Grid 6.2 % complete at the start of project



New download tool at www.gebco.net From 6.2 % to 15 % covered with the GEBCO 2019 grid



Nippon Foundation – GEBCO – Seabed 2030

First Arctic, Antarctic & North Pacific Mapping Meeting
October 8–10 | Stockholm 2018

THE NIPPON FOUNDATION

General Bathymetric Chart of the Oceans
GEBCO

United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

Stockholm University

CCOM JHC

University of New Hampshire

AWI