



IHO Hydrographic Commission on Antarctica (HCA)

International Bathymetric Chart of the Southern Ocean (IBCSO)

Laura Hehemann, Boris Dorschel and the IBCSO Team

Alfred Wegener Institute

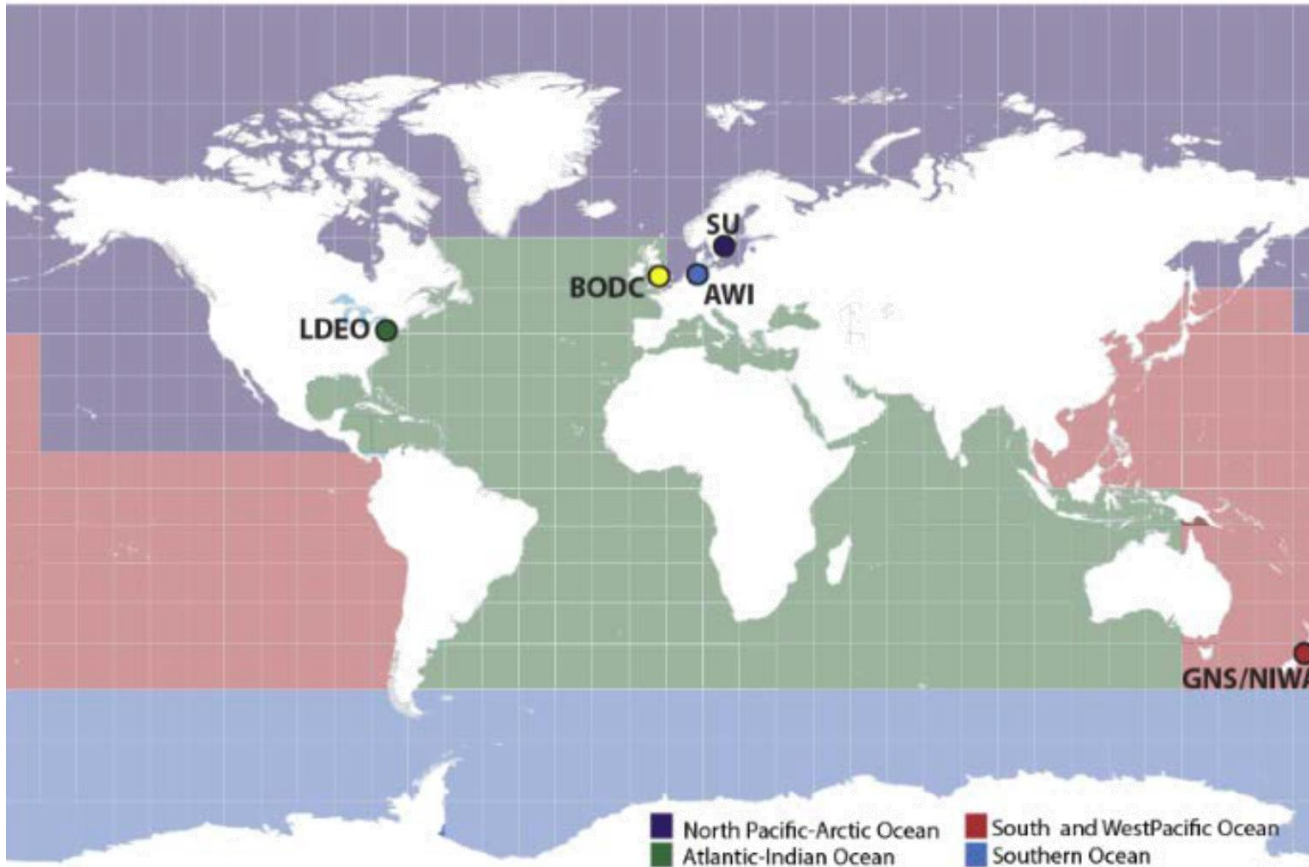
Helmholtz Centre for Polar and Marine Research



Nippon Foundation – GEBCO Seabed 2030

- Objective
 - 100% of the ocean floor mapped by 2030
 - Compile all bathymetric data into the freely-available GEBCO Ocean Map
- Data Sources
 - Government
 - Academic
 - Industry
 - Public





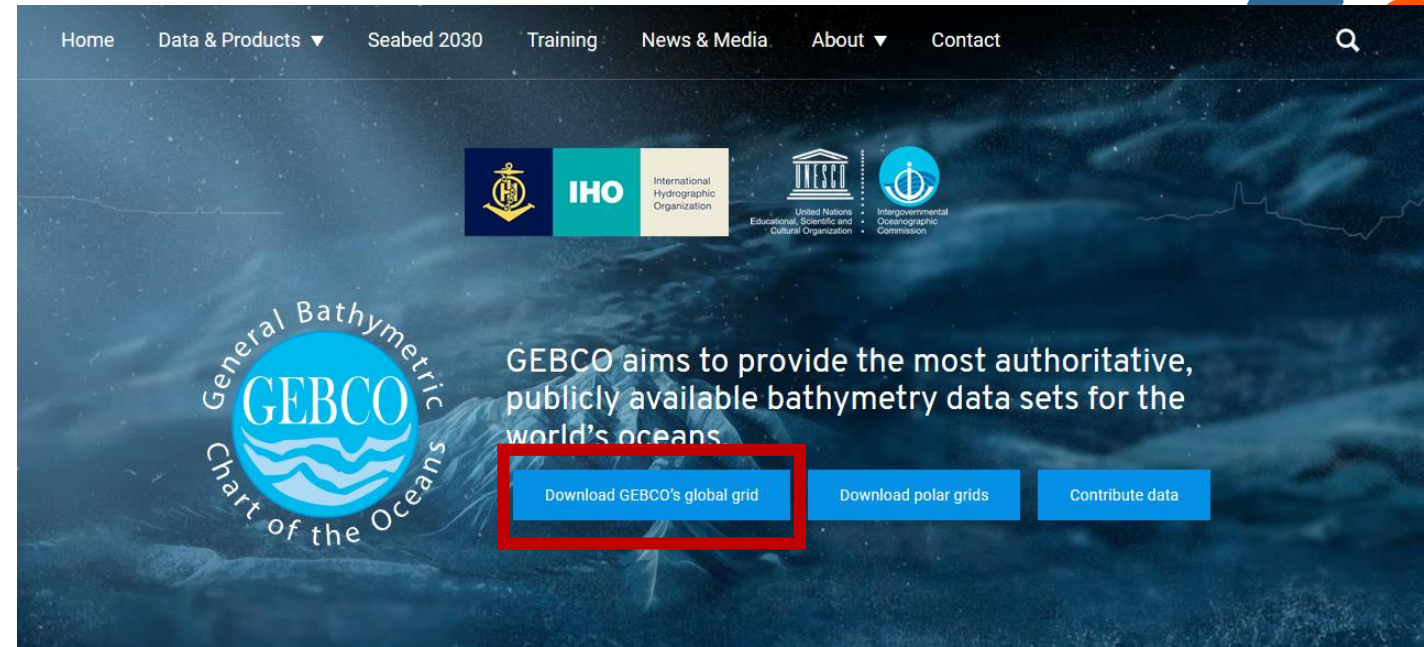
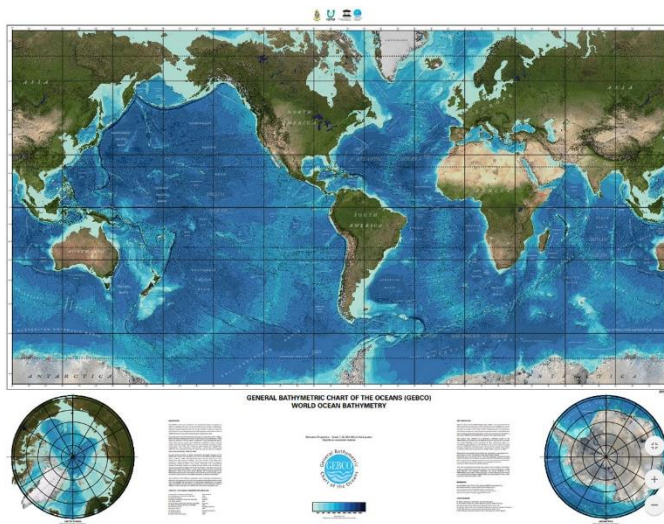
Data Centers

- **AWI** *Southern Ocean*
- **LDEO** *Atlantic + Indian Oceans*
- **NIWA** *South Pacific Ocean*
- **SU** and **UNH** *Arctic + North Pacific Oceans*
- **BODC** *Global Data Center*

GEBCO



- Global grid for 2021
- Accessible on GEBCO's webpage
- Includes IBCSO, as a regional compilation



Gridded Bathymetry Data



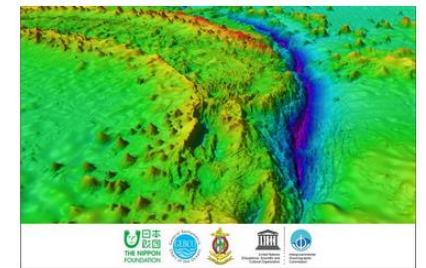
GEBCO's gridded bathymetric data sets are global terrain models for ocean and land. The grids are available to download or access through Web Map

Data & Products



GEBCO produces and makes available a range of bathymetric data sets and products. This includes a global bathymetric grid; gazetteer of undersea

Seabed 2030

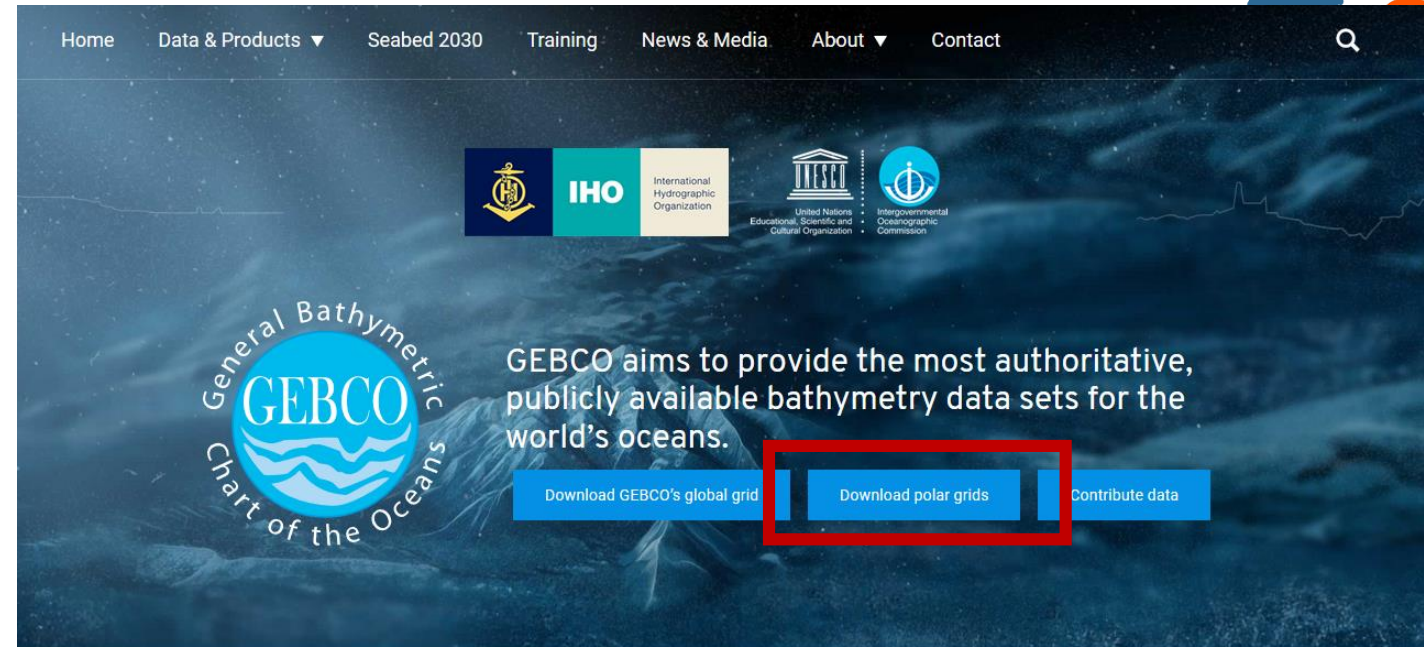
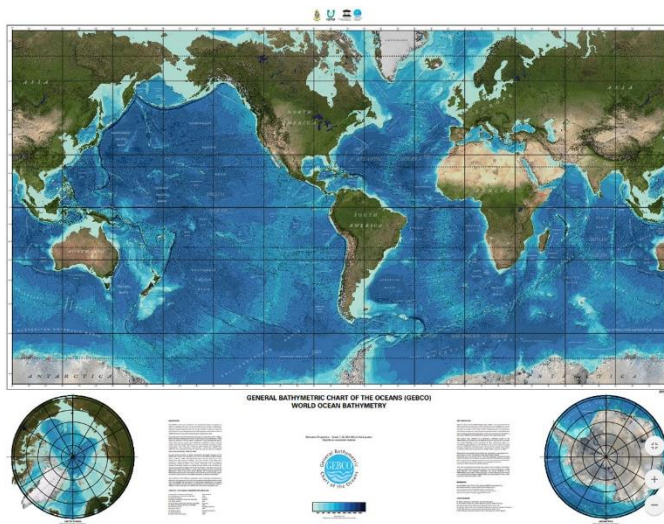


Seabed 2030 is a collaborative project between the Nippon Foundation and GEBCO. It aims to bring together all available bathymetric data to

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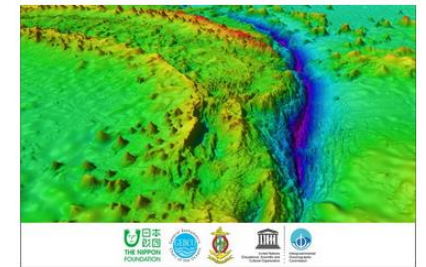
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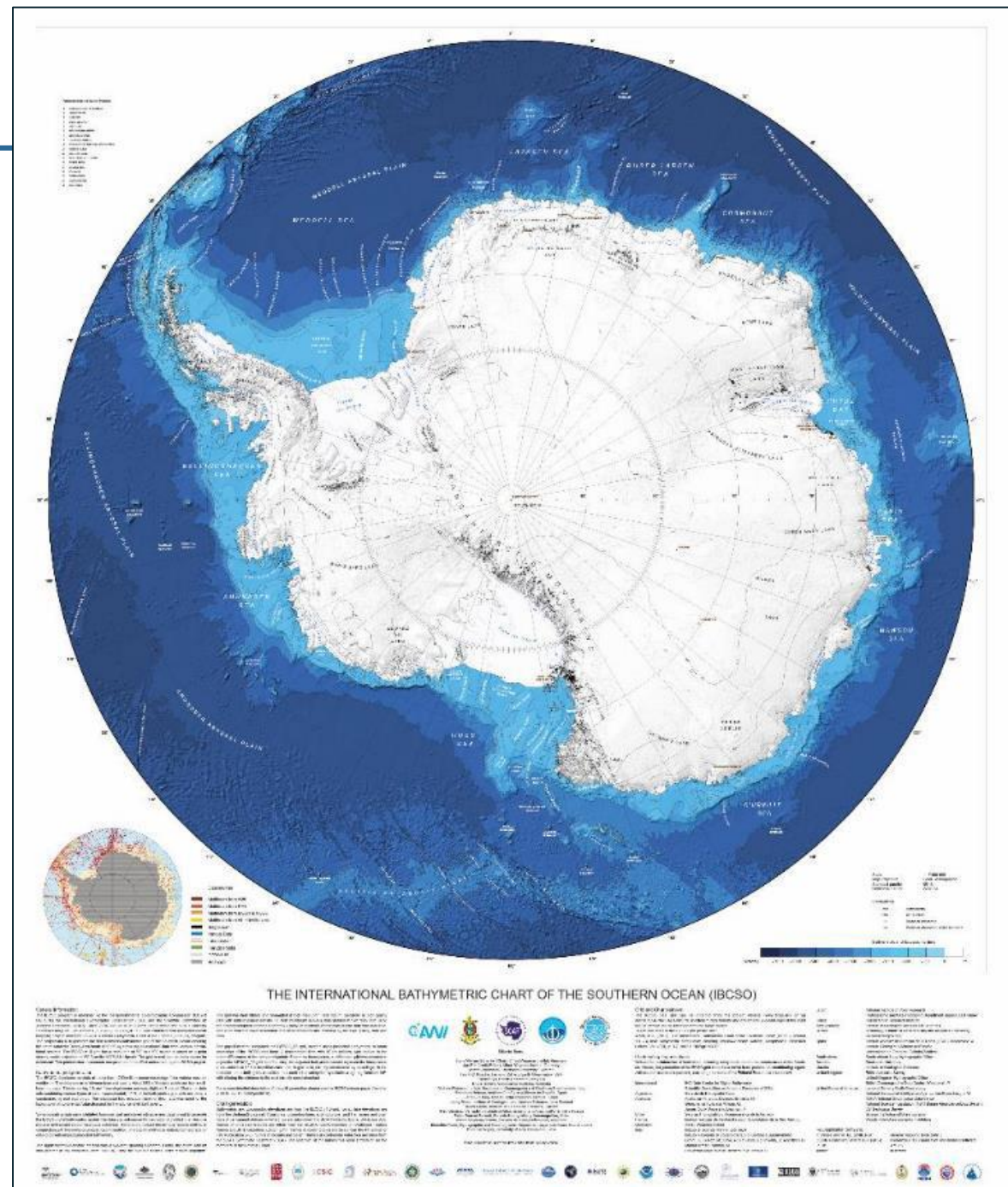
Seabed 2030



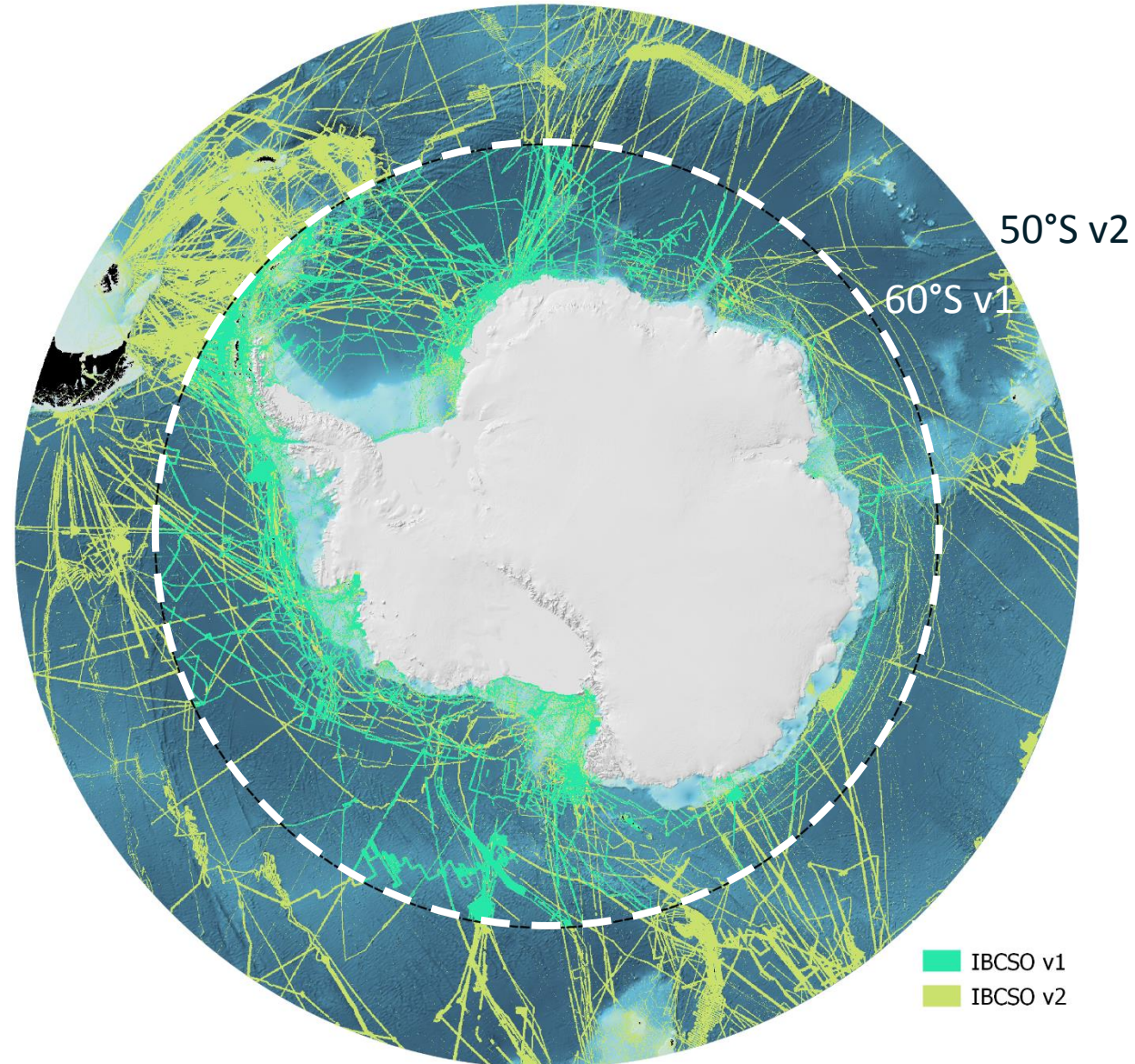
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IBCSO

- IBCSO v1
 - Arndt et al., 2013
 - Resolution 500 m
 - South of **60°S**
- IBCSO v2
 - Product of Seabed2030
 - Publication draft nearing completion
 - Resolution 500 m
 - South of **50°S**

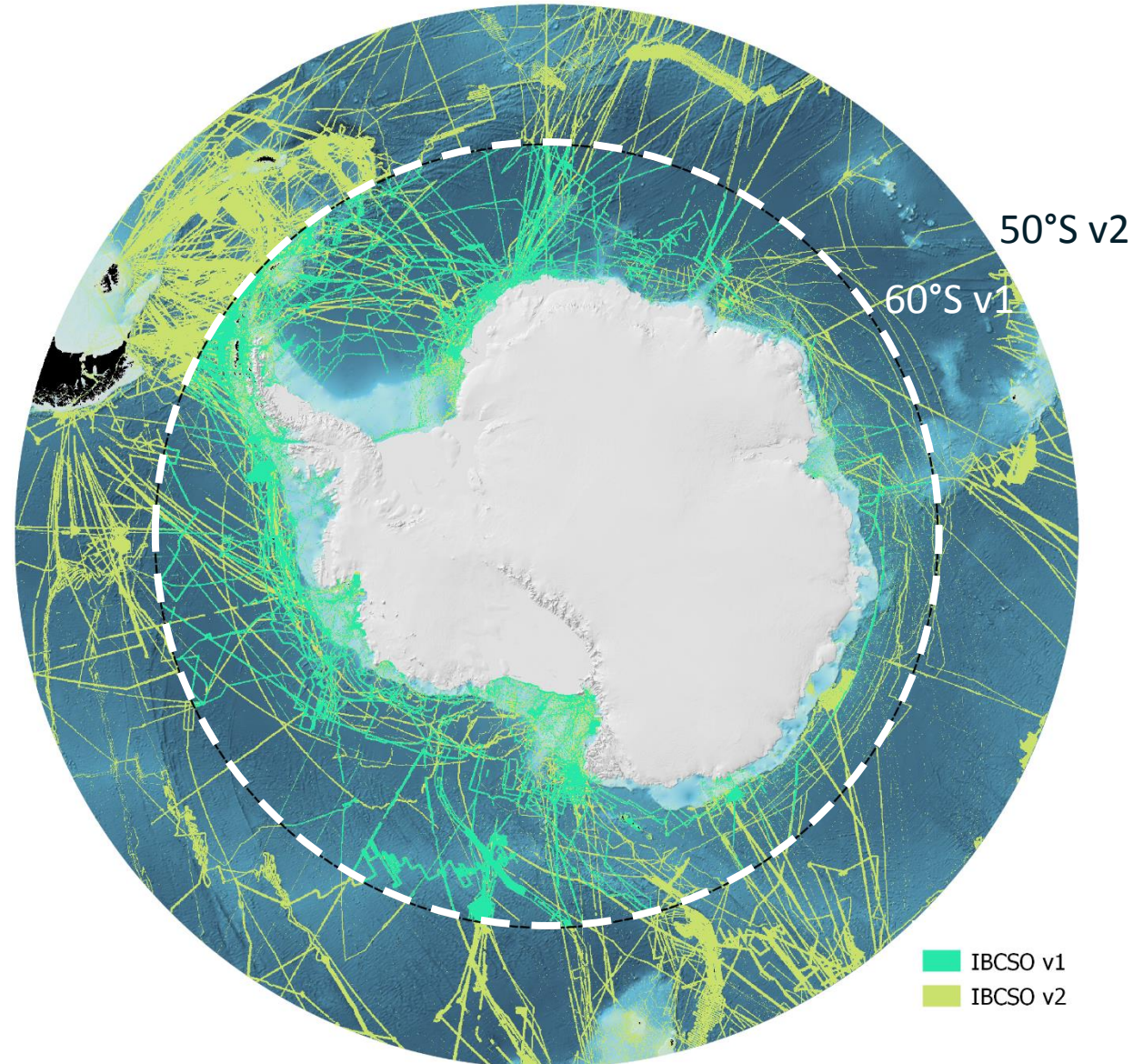


Data Coverage



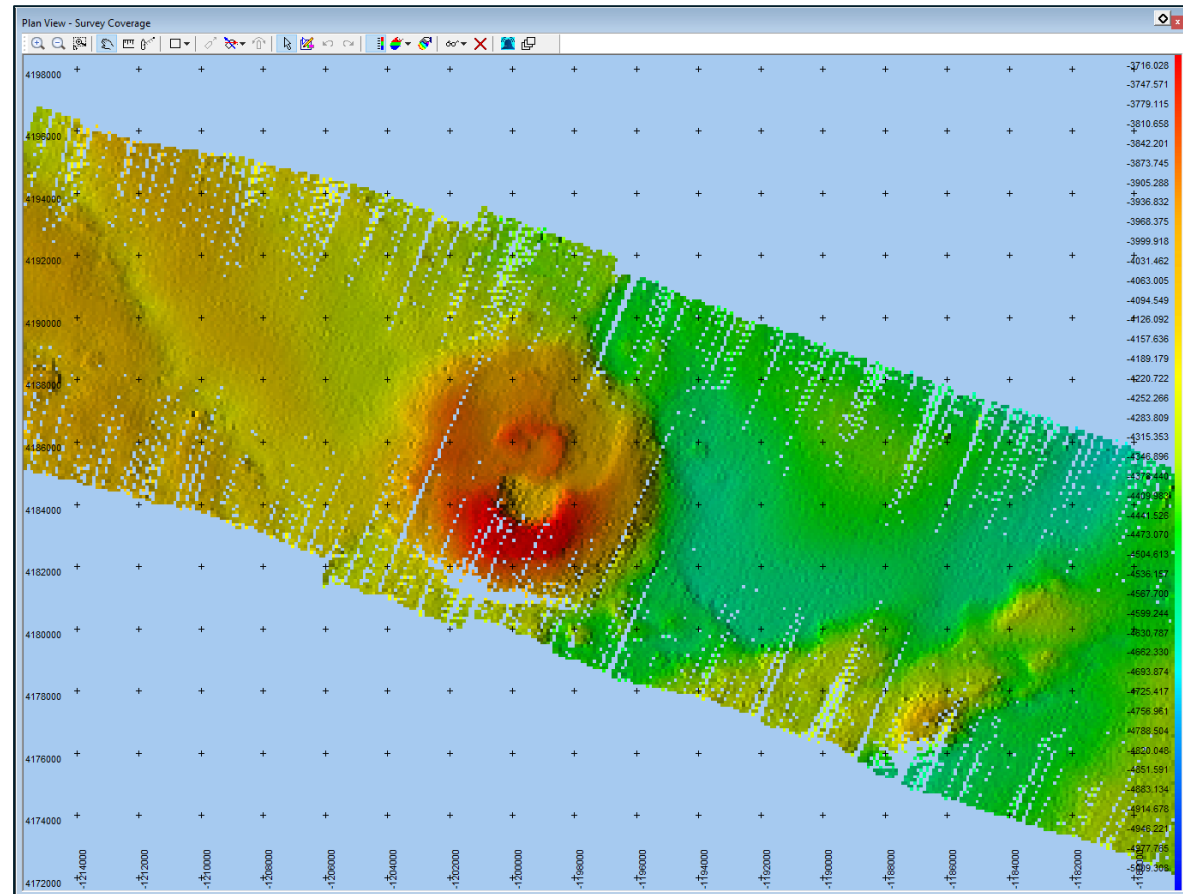
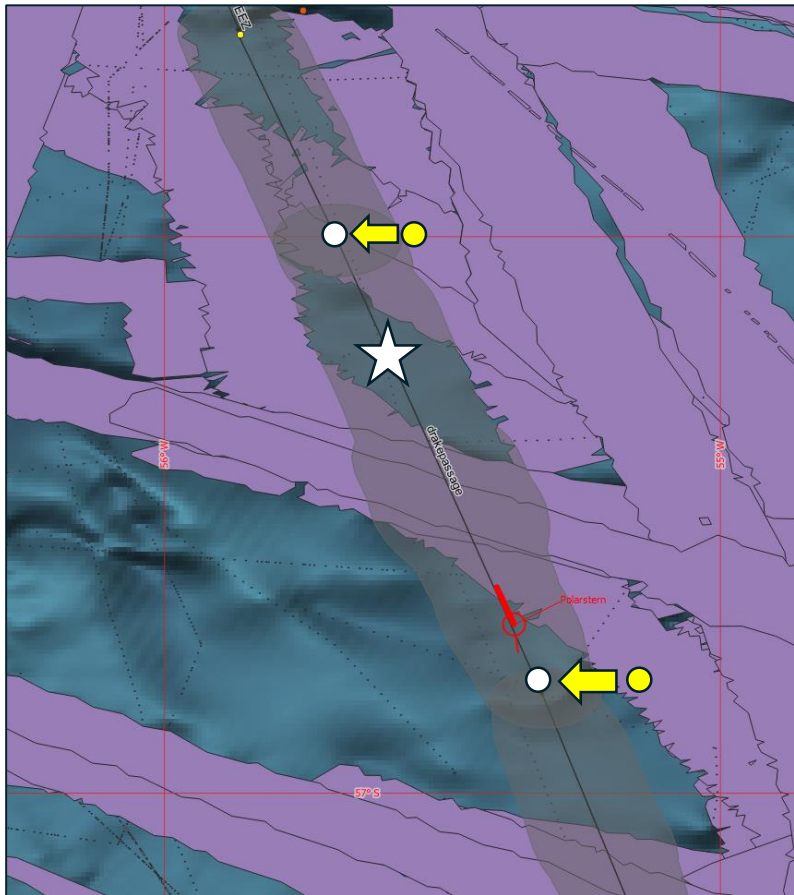
Accomplishments

- Workflow
 - SEAHORSE
 - *incl.* statistics
- Processing data
 - Formatting
 - Cleaning
- Acquiring data
 - Collaborations
 - Expeditions
- Publication
- Outreach



Map the Gaps

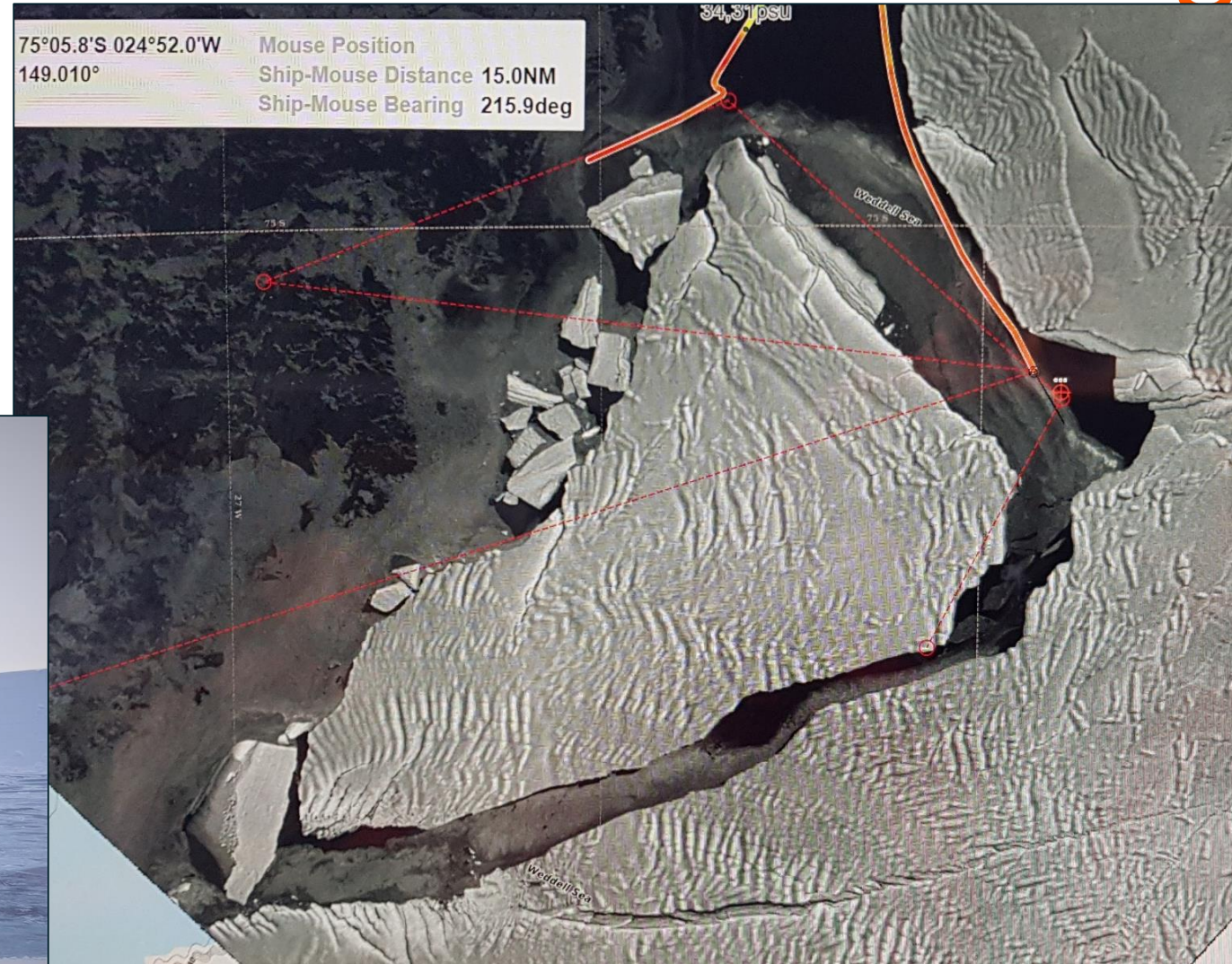
- PS124 Expedition
 - In the Drake Passage by shifting the ship transit ~12 km



Map the Gaps



- PS124 Expedition
 - Through the passage by the calving of iceberg A74 from the Brunt Ice Shelf



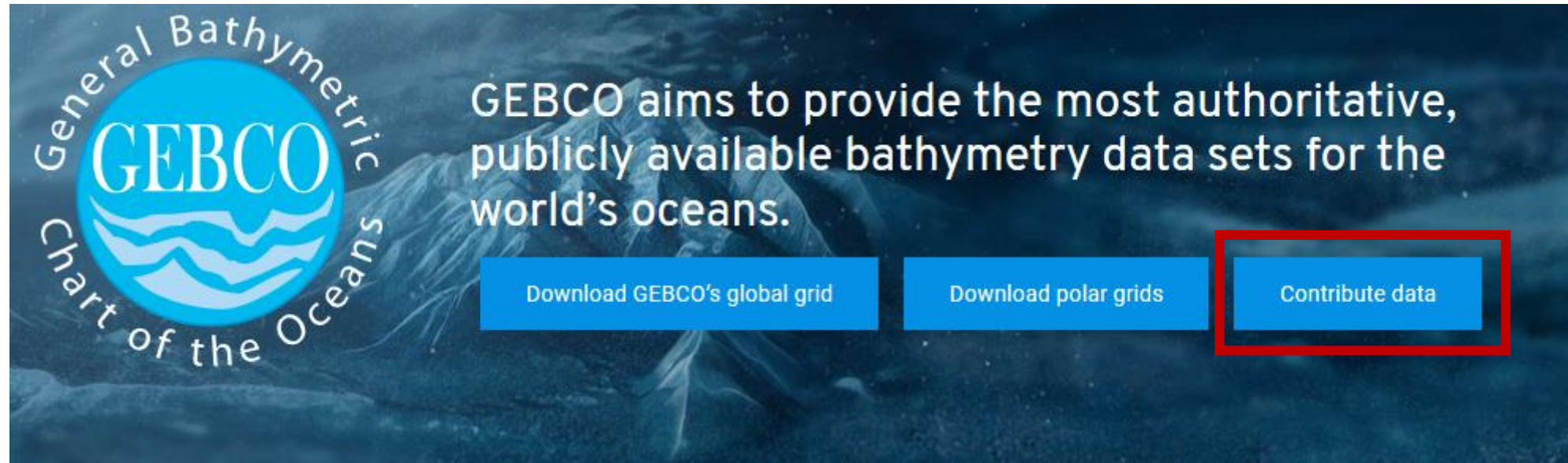
In response to the e-HCA Letter 01/2021...



- Japan
 - Noriko Ohori, Hydrographic and Oceanographic Department Japan Coast Guard
 - JARE 51 (2009) – JARE 54 (2012)
- South Africa
 - Theo Stokes, South African Navy Hydrographic Office
 - Dronning Maud Land Soundings (2004)
- France
 - Julien Smeeckaert, Shom
 - 40 datasets in Antarctic region currently being updated online

Contributing Data

- **PLEASE** provide your data
 - via GEBCO – Seabed2030 Website:



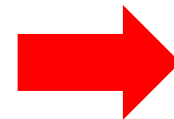
- or via Email:
 - laura.hehemann@awi.de
 - boris.dorschel@awi.de

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Country or Organization who holds these data *

Meine Antwort _____

Data Sharing status *

☐ Open Access - freely available

☐ Restricted Access (e.g. can be included in GEBCO products, but not disseminated as provided)

☐ Embargoed

☐ Sonstiges: _____

Region of the World Ocean *

Check all that apply

☐ Arctic Ocean

☐ Atlantic Ocean

☐ Indian Ocean

☐ North Pacific Ocean

☐ South and West Pacific Ocean

☒ Southern Ocean