THE NIPPON FOUNDATION-GEBCO
SEABED 2030

SWPHC22
PALAU, 3-5 MARCH 2025

Seabed 2030 Pacific Regional Centre Update

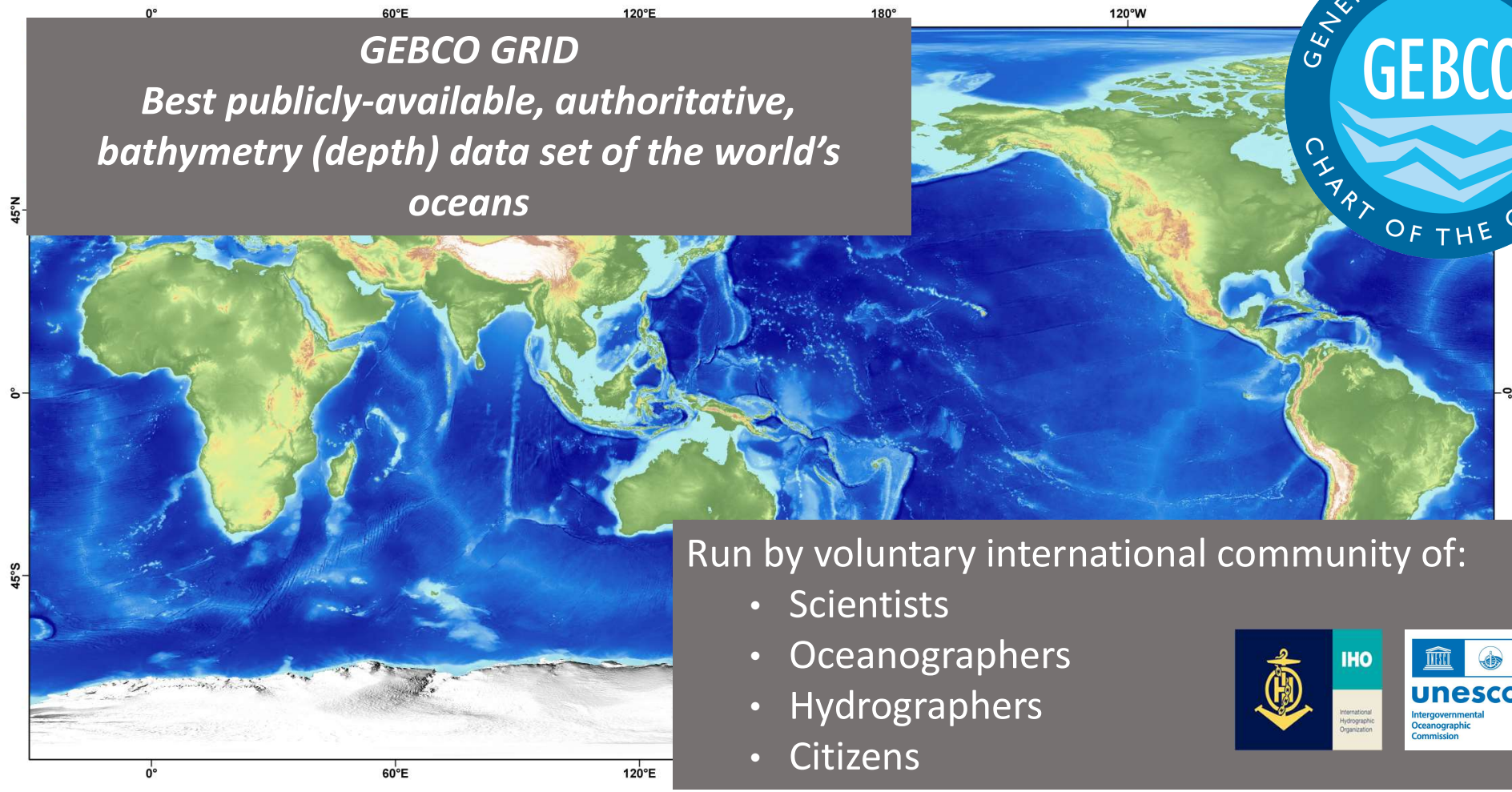
Kevin Mackay

THE NIPPON FOUNDATION
GEBCO
120 1903–2023
International Hydrographic Organization
Organisation Hydrographique Internationale
IHO
unesco
Intergovernmental Oceanographic Commission
2021 2030 United Nations Decade of Ocean Science for Sustainable Development
NIWA
Taihoro Nukurangi
GNS SCIENCE
Land Information New Zealand
Toitū te whenua

1. What is Seabed 2030

2. How to get involved

3. Regional updates since last SWPHC



GEBCO GRID

Best publicly-available, authoritative, bathymetry (depth) data set of the world's oceans

Run by voluntary international community of:

- Scientists
- Oceanographers
- Hydrographers
- Citizens

https://www.gebco.net/

Seabed2030 → Created to boost GEBCO

Seabed 2030 = accelerator to GEBCO

Collaboration to:

- **Inspire 100% seabed mapping by 2030**
- **Compile the GEBCO Map**

SEABED 2030

Our mission is to inspire ocean mapping and deliver a complete seabed map for the benefit of people and the planet.

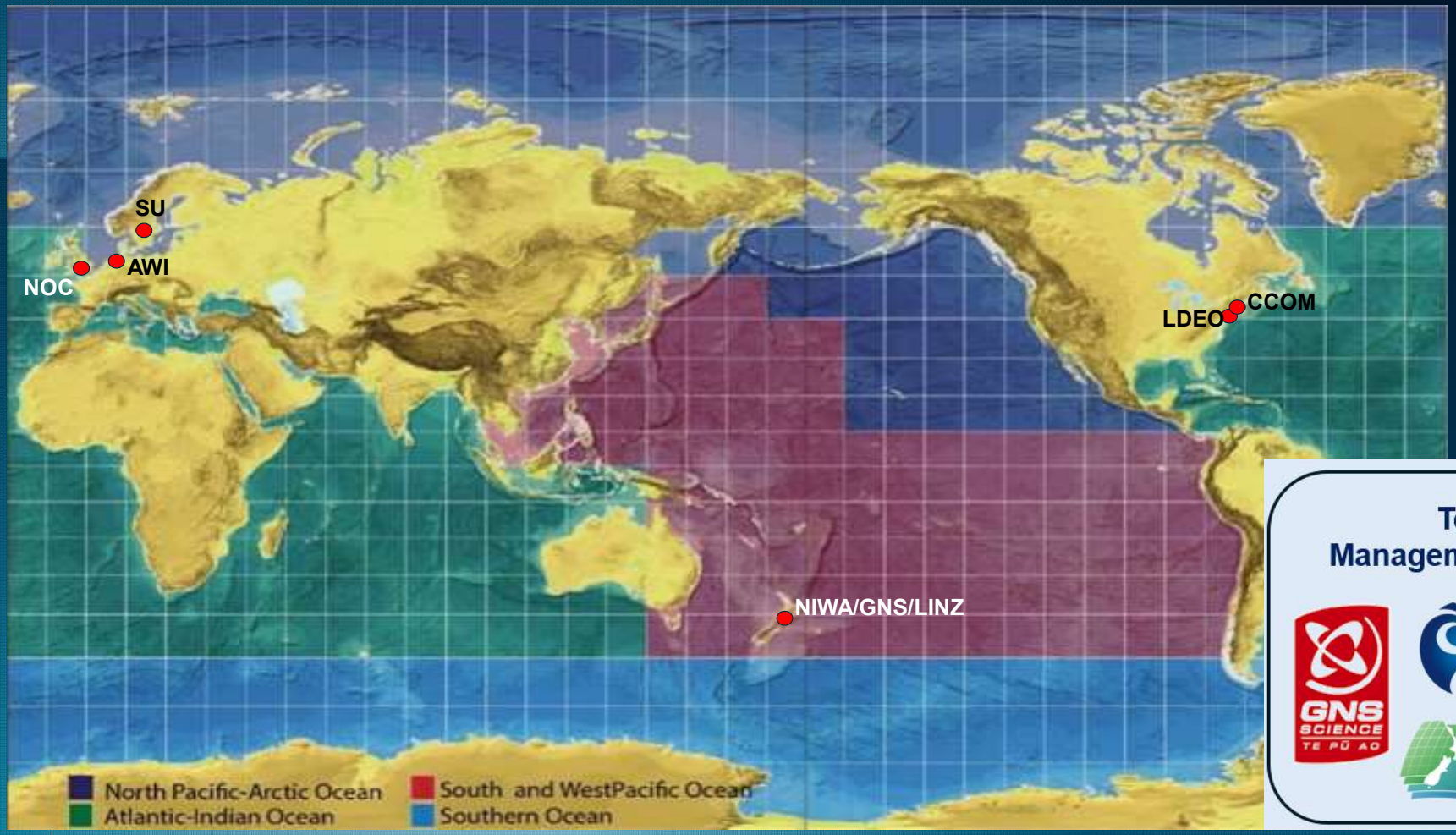
2021 2030 United Nations Decade of Ocean Science for Sustainable Development

THE OCEAN DECADE

The Science We Need for the Ocean We Want

https://seabed2030.org/

Seabed 2030 Pacific Regional Center



Technical Management Committee

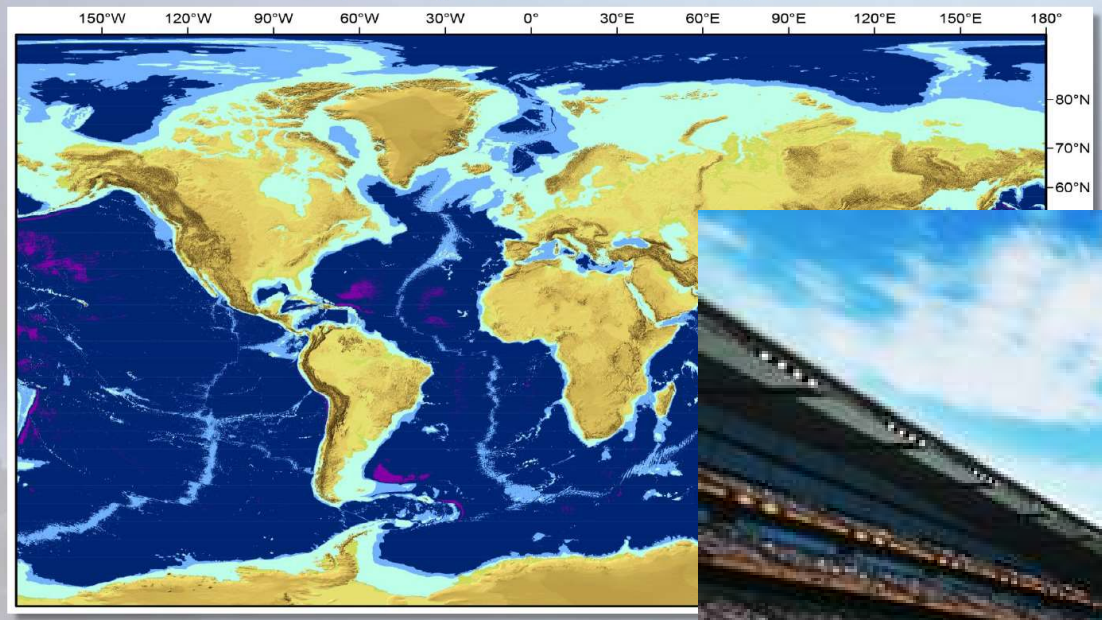
GNS SCIENCE TE PŪ AO

NIWA Taihoro Nukurangi

Toitū Te Whenua Land Information New Zealand

What does”100% mapped mean?

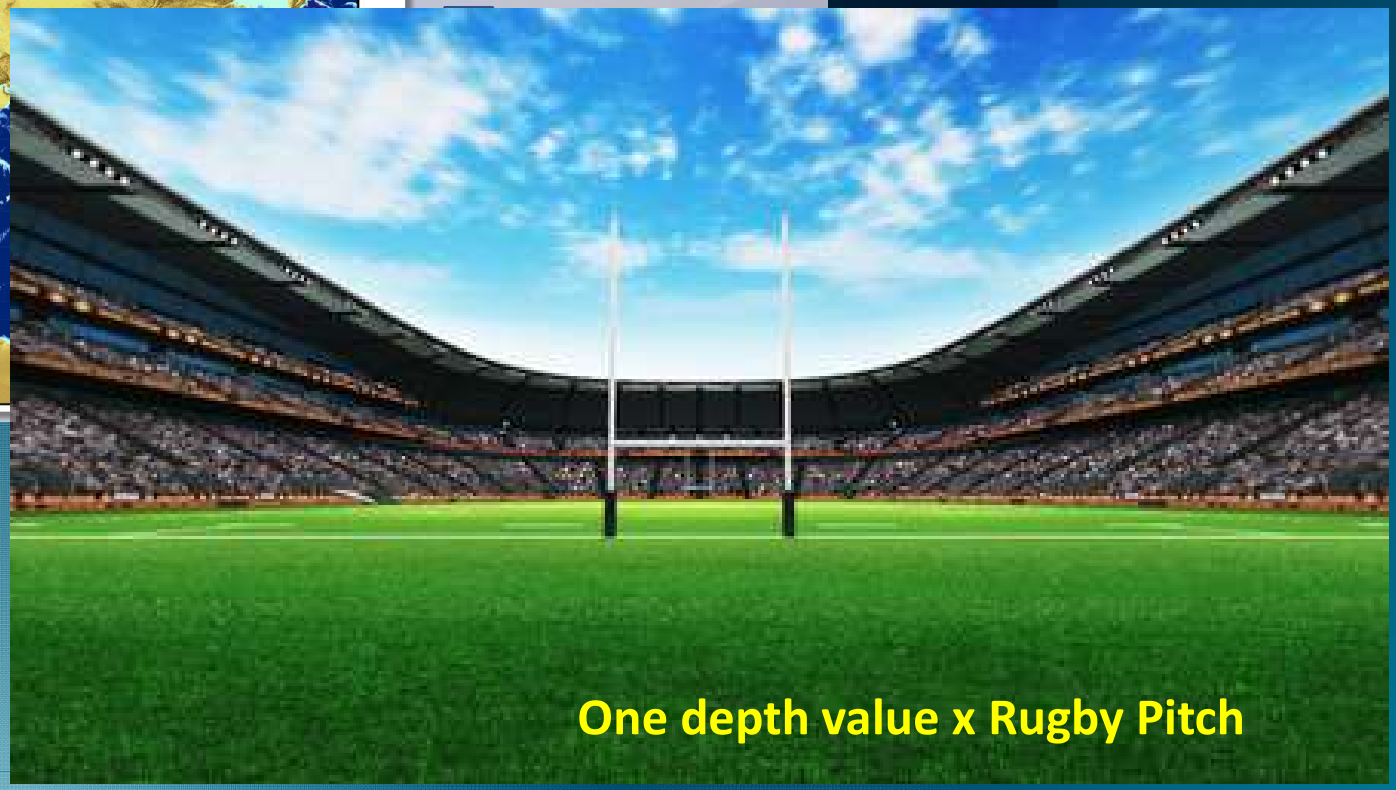
Depth-dependent resolution goals



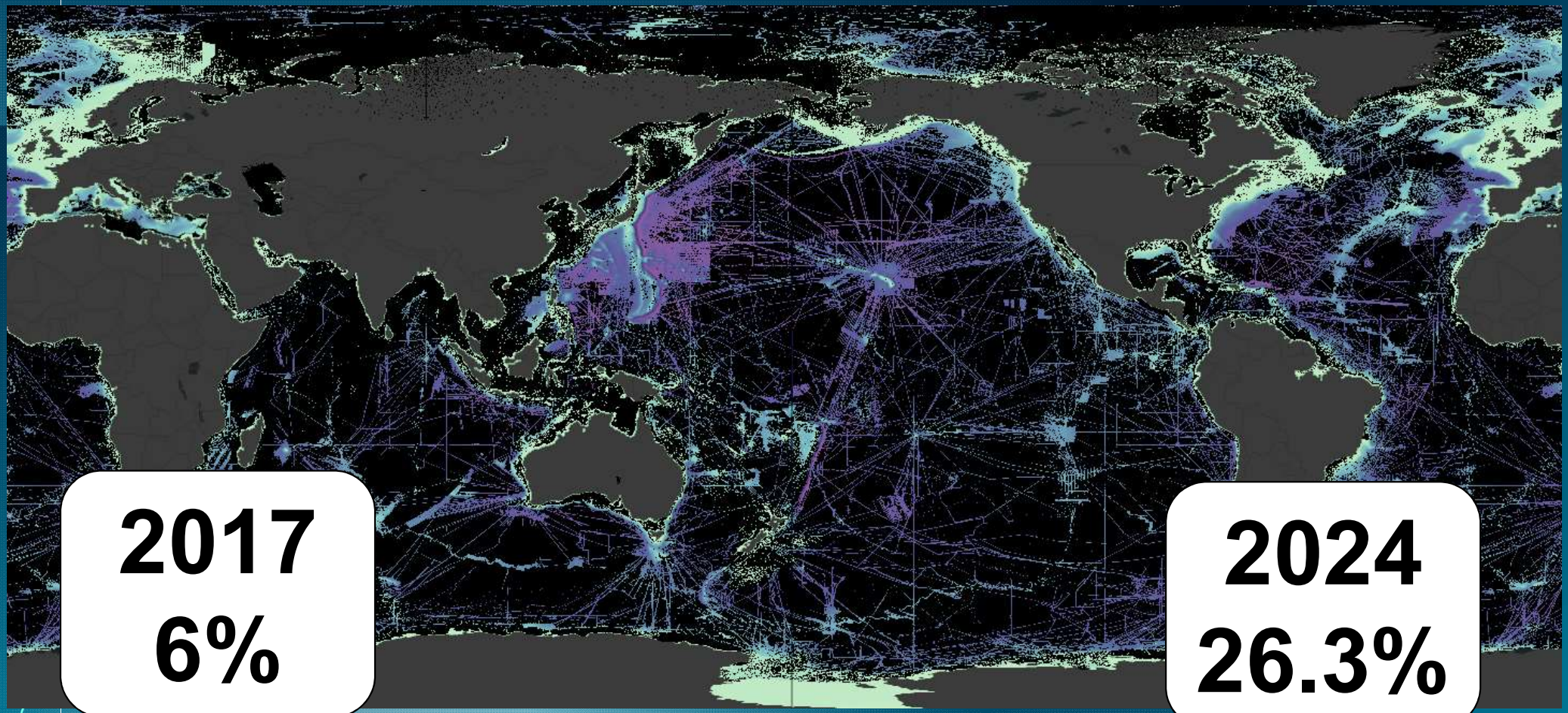
100x100 m (0-1500 m)

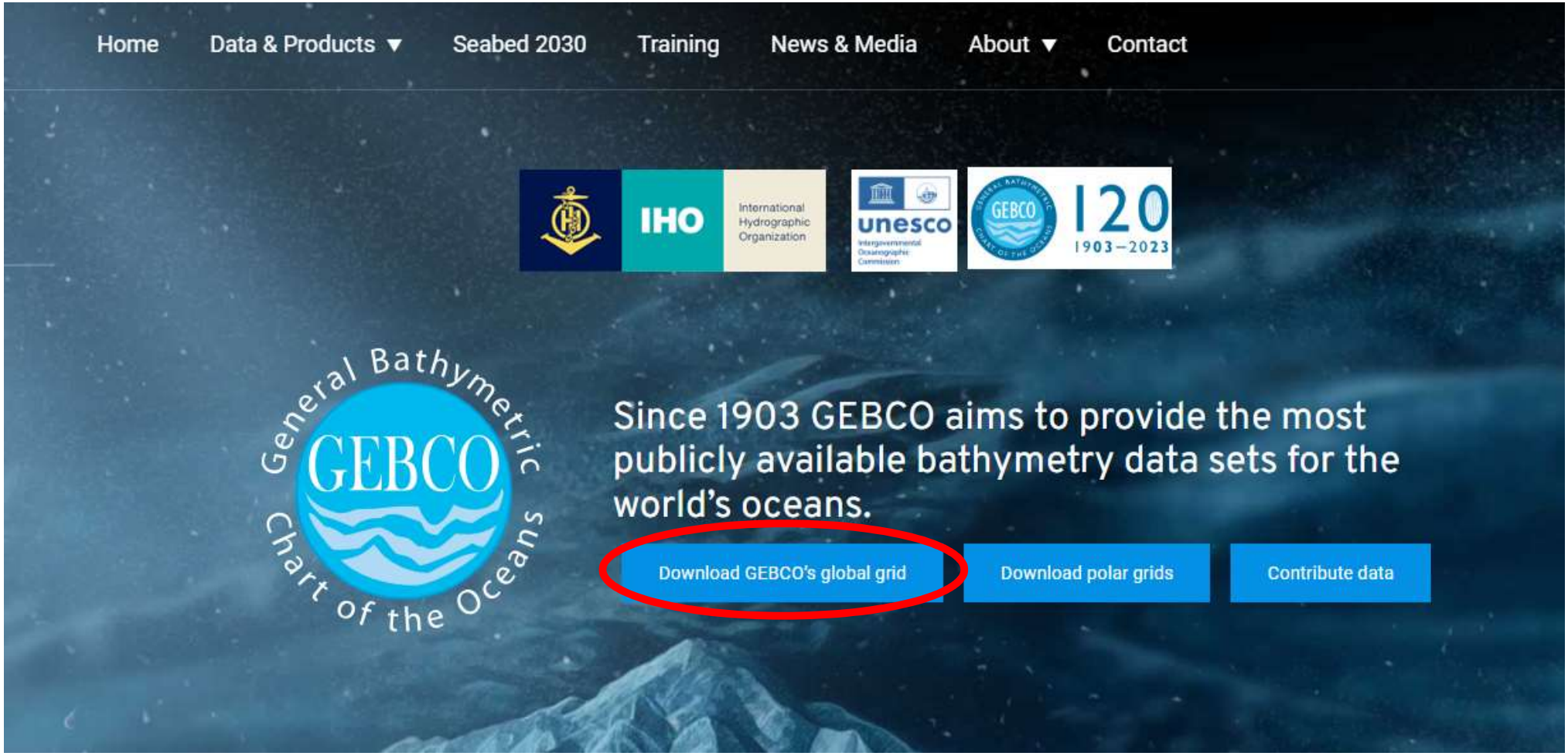
200x200 m (1500-3000 m)

400x400 m (3000-5750 m)

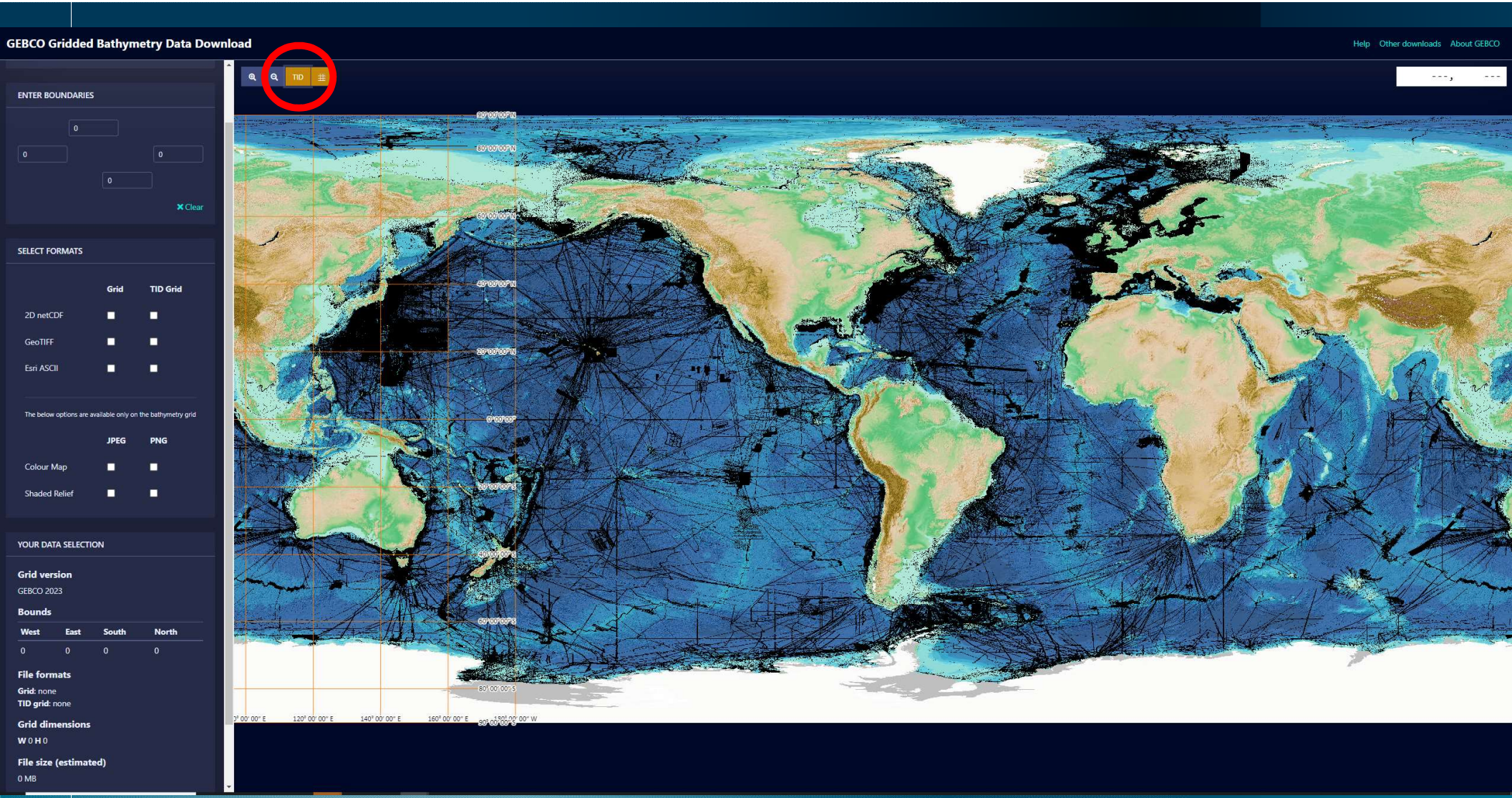


Seabed2030 Global Progress



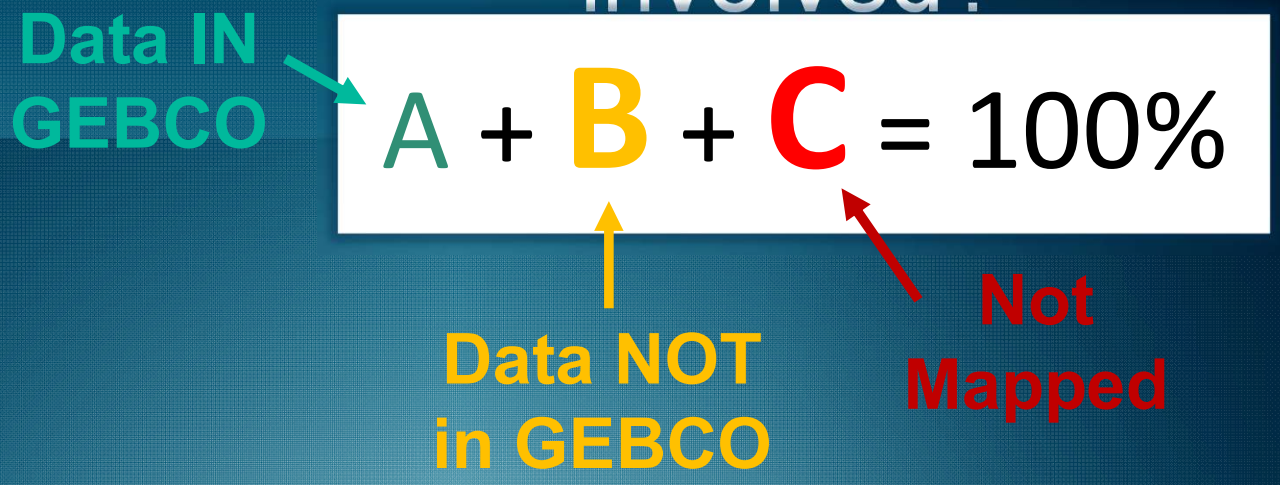


https://www.gebco.net/



https://www.gebco.net/

How can all get involved?



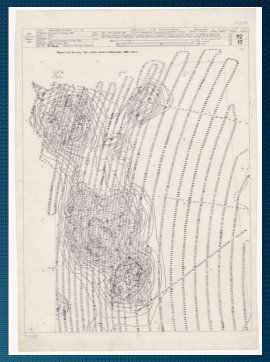
- Data contributions
- Transit Data Collection
- Inform about Gaps & Priorities
- Crowdsourced Bathymetry
- Talk about Seabed2030

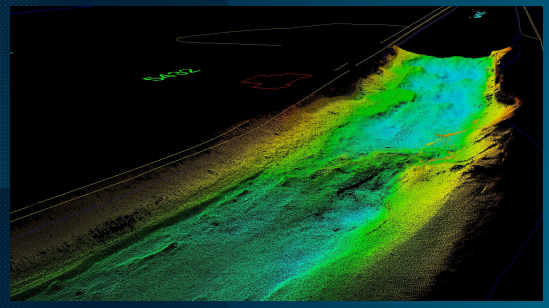
What do we mean by "data"?

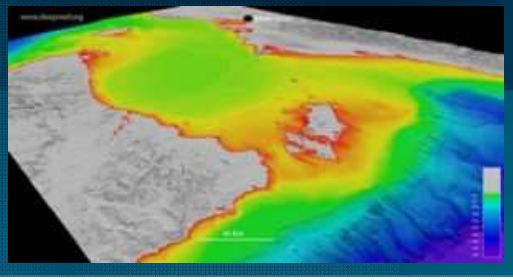
Any form of data that contains a bathymetric measurement is gratefully accepted by Seabed 2030 and GEBCO!

Examples of data are:

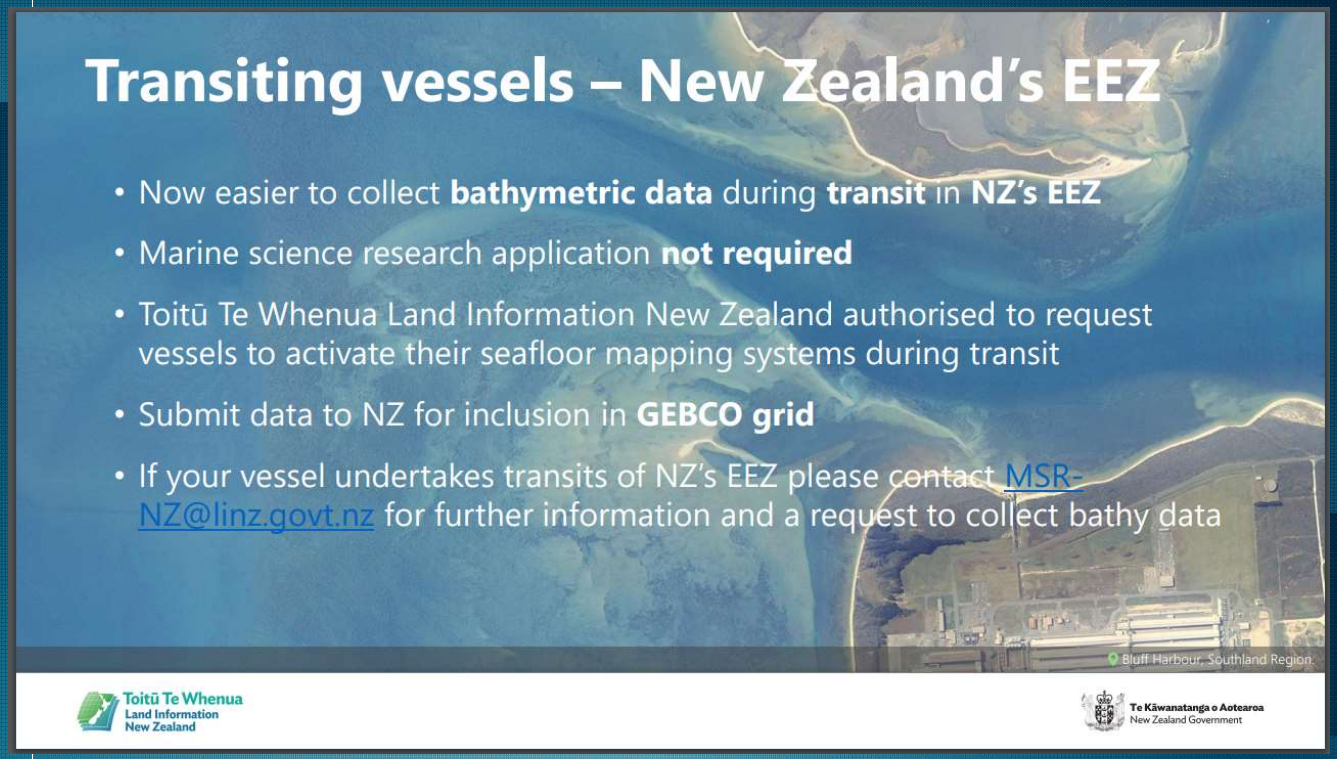
- Sounding sheets
- Raw data from sounders
- NMEA data (e.g. from CSB data loggers)
- Processed data (e.g. GSF or XYZ)
- S-57 ENC
- Processed grids or bathymetric surfaces
- Regional bathymetric products





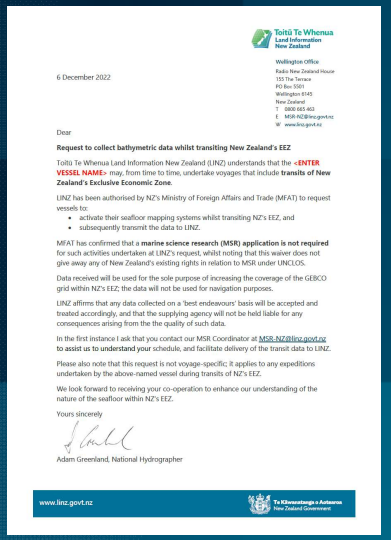


NZ – Transit Data Collection made easy



Pre-approval for Foreign Vessel Transit

MSR-NZ@linz.govt.nz



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6 December 2022

Dear

Request to collect bathymetric data whilst transiting New Zealand's EEZ

Toitū Te Whenua Land Information New Zealand (LINZ) understands that the **<ENTER VESSEL NAME>** may, from time to time, undertake voyages that include **transits of New Zealand's Exclusive Economic Zone**.

LINZ has been authorised by NZ's Ministry of Foreign Affairs and Trade (MFAT) to request vessels to:

- activate their seafloor mapping systems whilst transiting NZ's EEZ, and
- subsequently transmit the data to LINZ.

MFAT has confirmed that a **marine science research (MSR) application is not required** for such activities undertaken at LINZ's request, whilst noting that this waiver does not give away any of New Zealand's existing rights in relation to MSR under UNCLOS.

Data received will be used for the sole purpose of increasing the coverage of the GEBCO grid within NZ's EEZ; the data will not be used for navigation purposes.

LINZ affirms that any data collected on a 'best endeavours' basis will be accepted and treated accordingly, and that the supplying agency will not be held liable for any consequences arising from the the quality of such data.

In the first instance I ask that you contact our MSR Coordinator at MSR-NZ@linz.govt.nz to assist us to understand your schedule, and facilitate delivery of the transit data to LINZ.

Please also note that this request is not voyage-specific; it applies to any expeditions undertaken by the above-named vessel during transits of NZ's EEZ.

We look forward to receiving your co-operation to enhance our understanding of the nature of the seafloor within NZ's EEZ.

Yours sincerely

Adam Greenland, National Hydrographer

www.linz.govt.nz

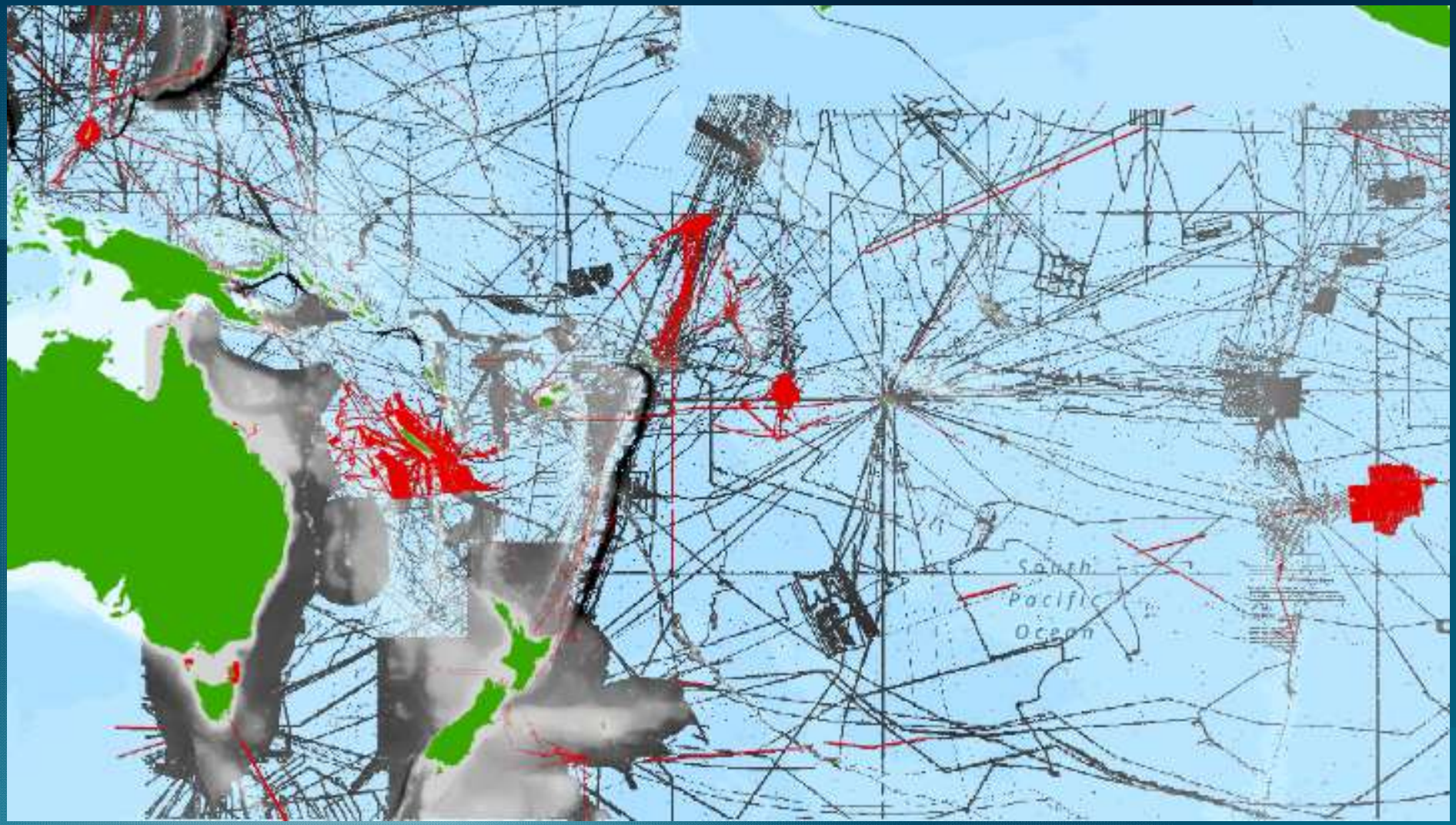
Te Kāwanatanga o Aotearoa New Zealand Government

Data contributors in the Pacific 2024/2025

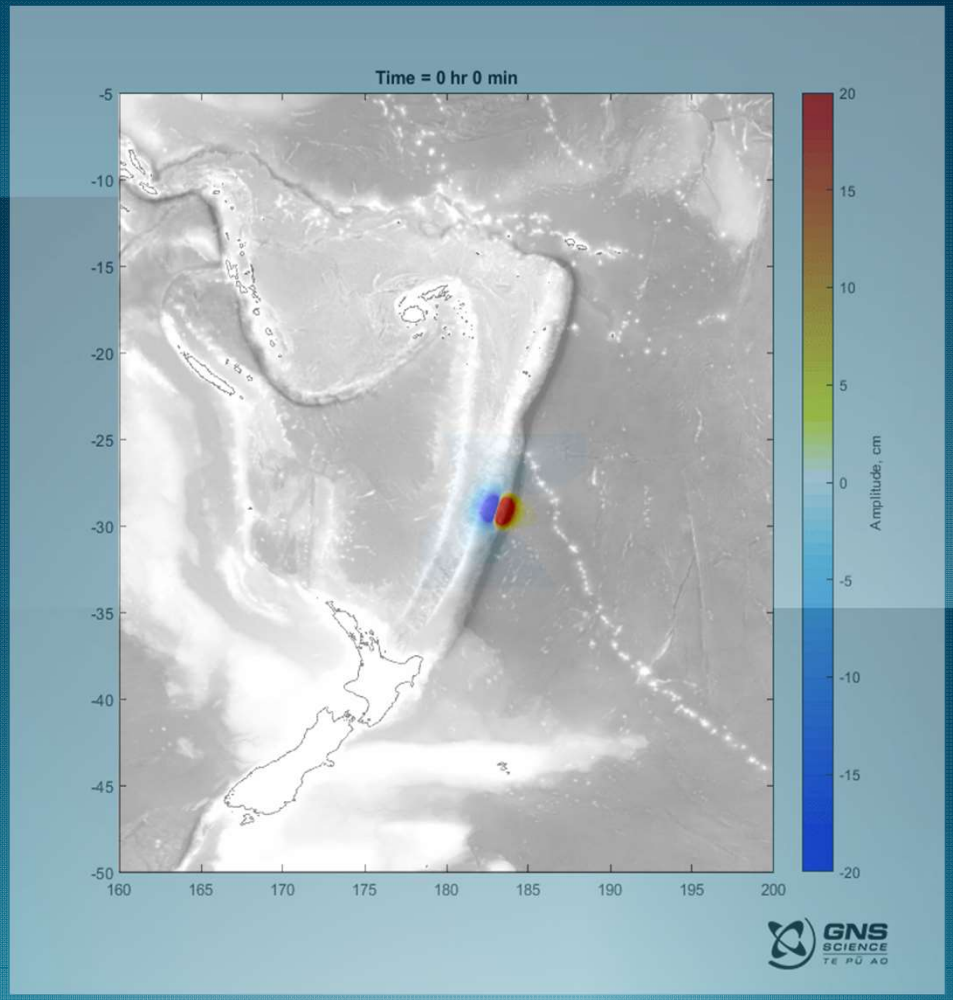
- **Toitū Te Whenua Land Information New Zealand**
- **Australian Hydrographic Office**
- **NOAA**
- **Ifremer**
- **Inkfish**
- **NIWA**
- **SPC**
- **Cook Islands**
- **AusSeabed**
- **UNOLS (US Academic fleet)**
- **Greenwater Foundation/TCarta**
- **SHOM**
- **Pangaea (Germany)**

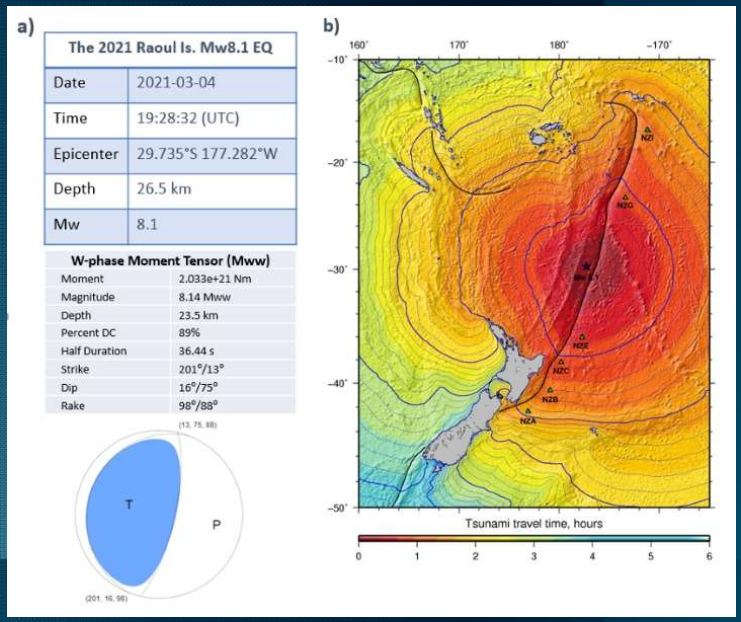
Thank you!

Mesulang! ☺


South
Pacific
Ocean

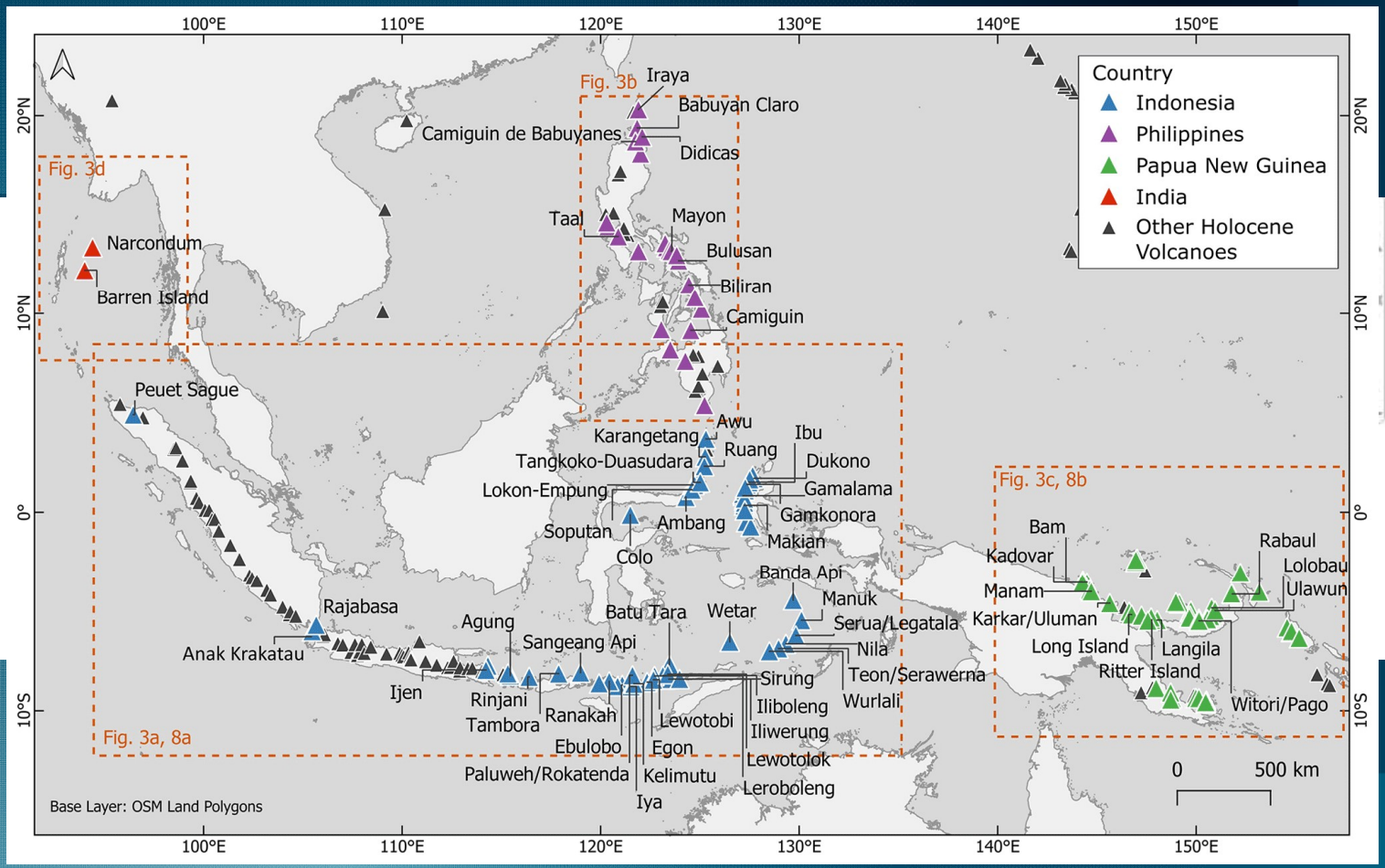
GEBCO use case



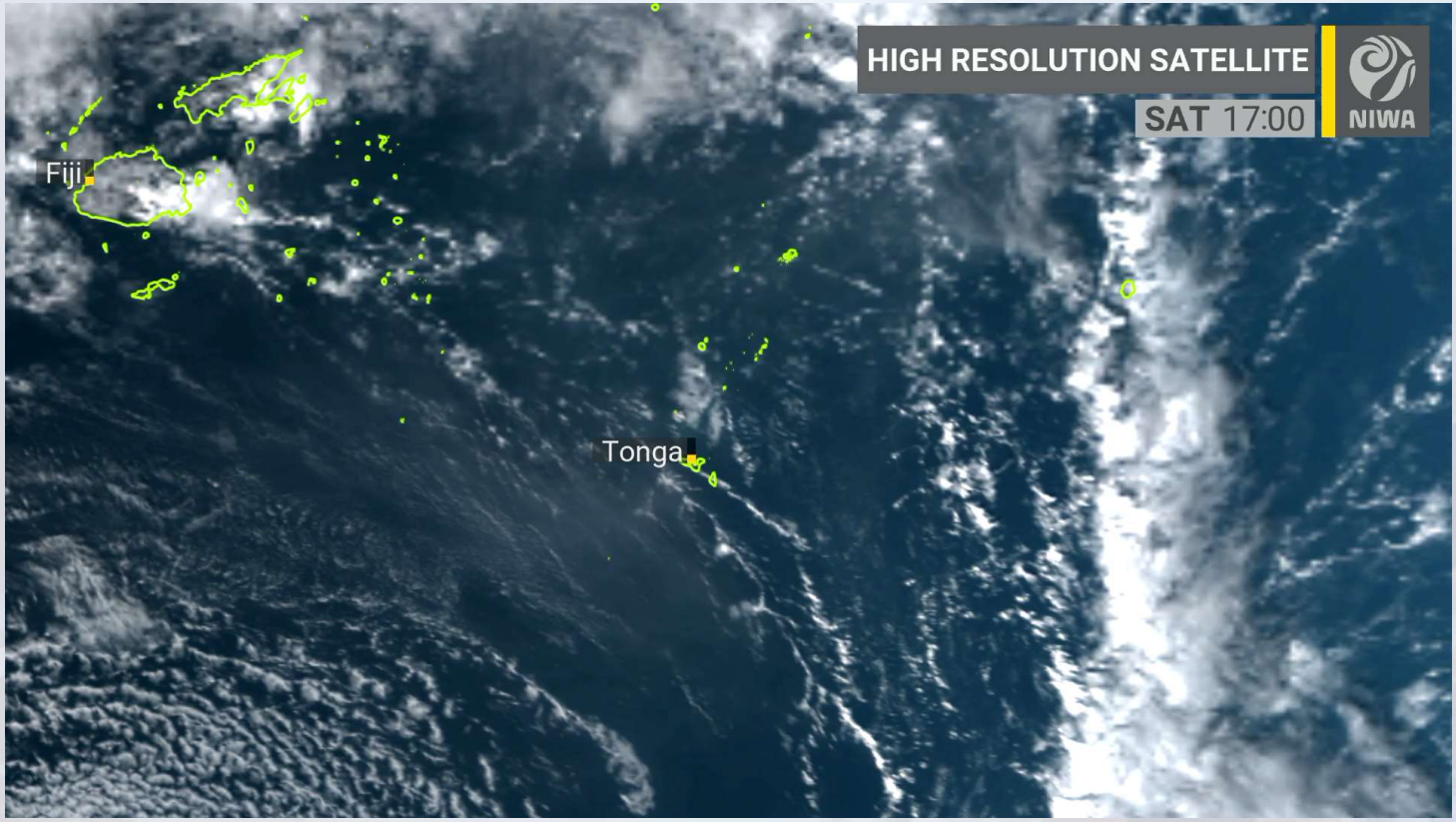


March 2021 Magnitude 8.1 Earthquake

GEBCO use case



15 January 2022 VEI-5 Tonga Eruption



6th Seabed 2030 Pacific Ocean Mapping Meeting– Nadi, Fi

Workshop: open data and freely available tools

https://seabed2030.org/

IRCC12 Action 19

Encourage all Member States to make existing seabed mapping data available for use by Seabed 2030 in the GEBCO Grid.

IRCC16 Recommendation 12

RHCs to encourage Member States and community bathymetric data contributions to the DCDB, regardless of origin, resolution or quality.

Thank you!

Let's talk!

☺

www.seabed2030.org

pacific@seabed2030.org