

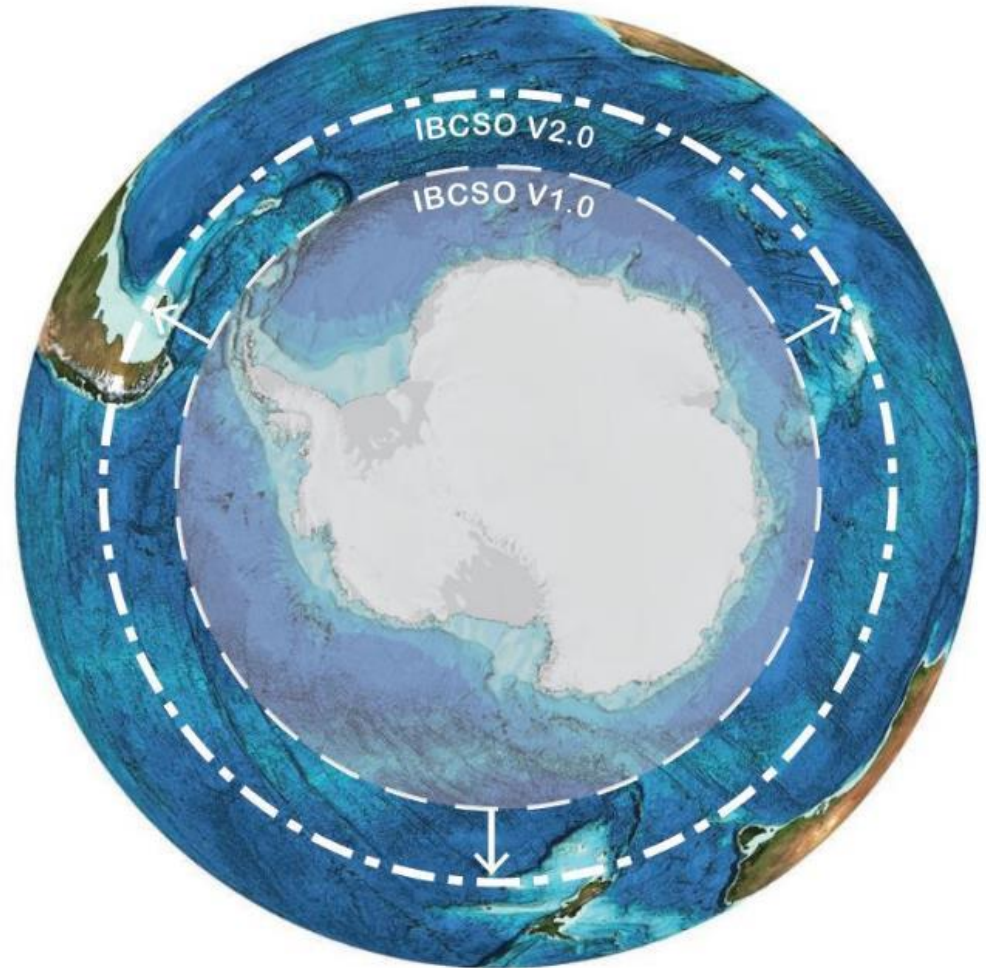
IBCSO V2 - Progress

Arctic, Antarctic, North-Pacific
Mapping Meeting

IBCSO V2



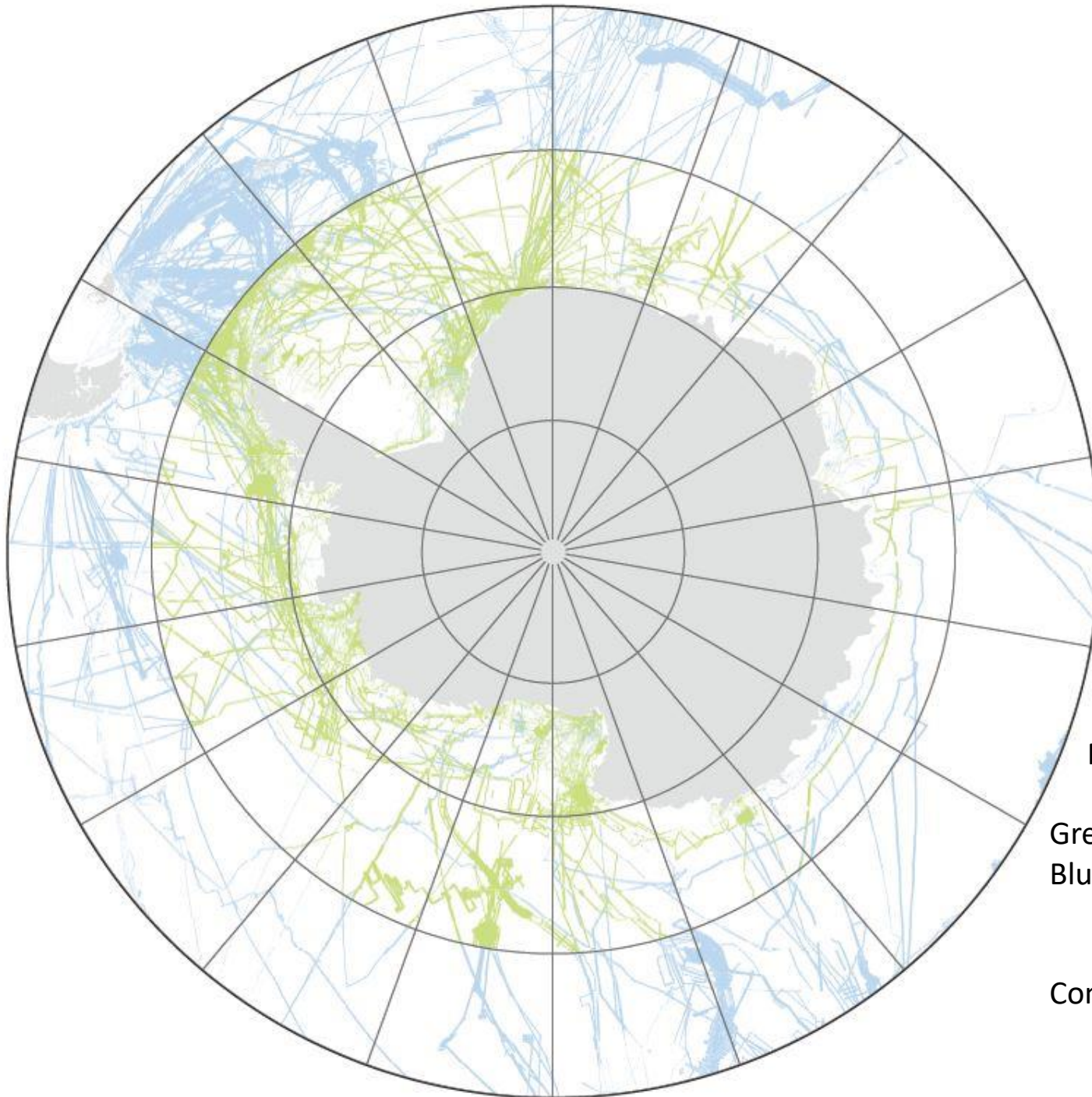
- Larger extent
 - 2.5 times the area as Version 1.0!
- Resolution stays at 500 m



Backgroundimage: GEBCO_14 (Weatherall et al.,2015)



XXXIV **SCAR**
KUALA LUMPUR
20-30 AUGUST 2016



MB Coverages

Green = IBCSO V1

Blue = Additional multibeam
coverages

Compilation date: early 2017

Timeframe



- Deadline for data submission for V2 is **December 2018!**
- Envisioned release in combination with a publication is **Fall 2019**
- Preliminary grid will be prepared for Seabed 2030 already in October 2018!

Outline

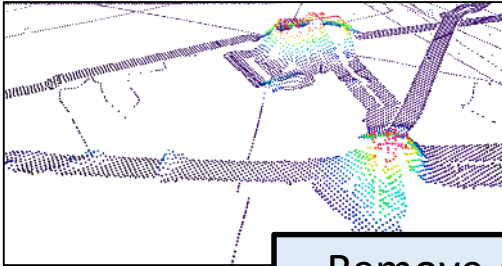


- Gridding Methodology/Progress
- Topography data
 - Antarctica
 - (Bed/Ice)
 - Ice shelf cavity data sets
 - Sub-Antarctic

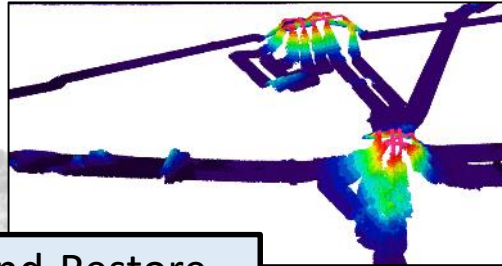
Gridding Methodology



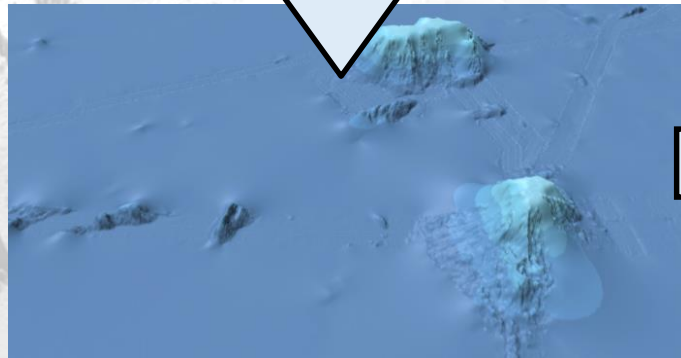
Low-resolution data



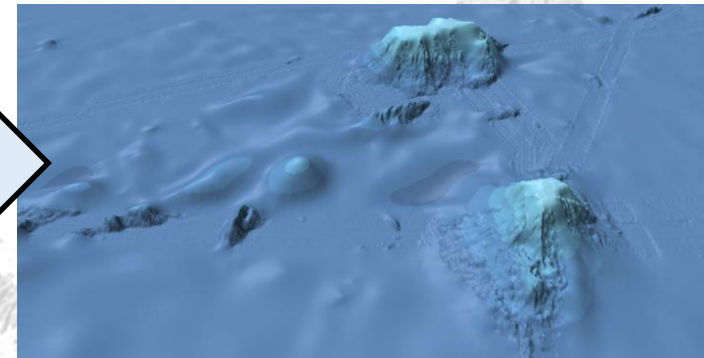
High-resolution data



Remove-and-Restore



Gapfill

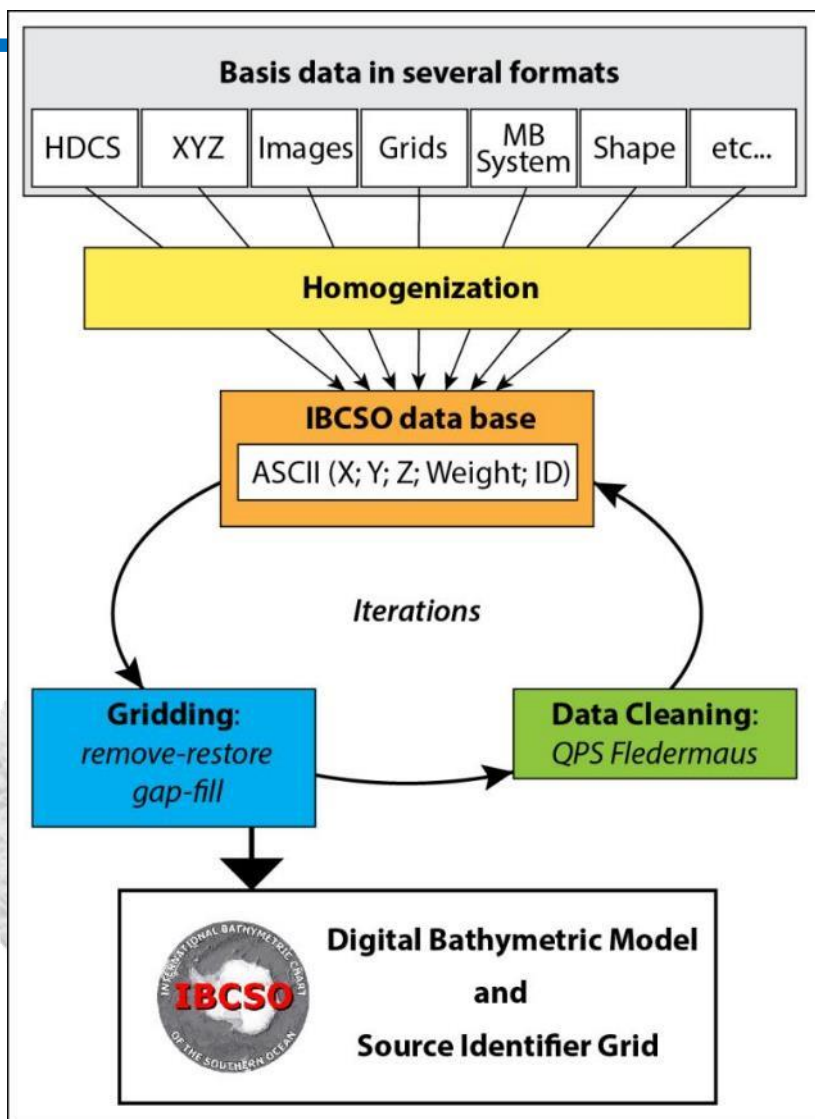


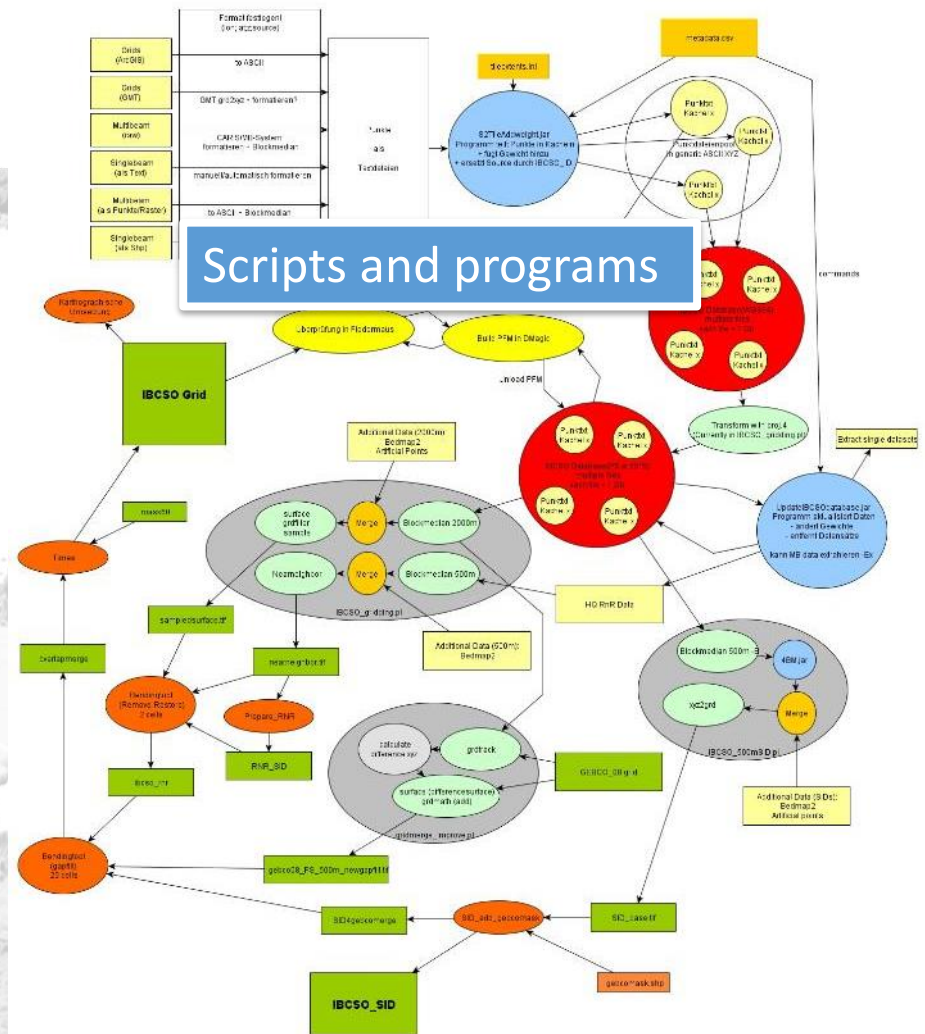
Predicted
bathymetry
(from GEBCO)



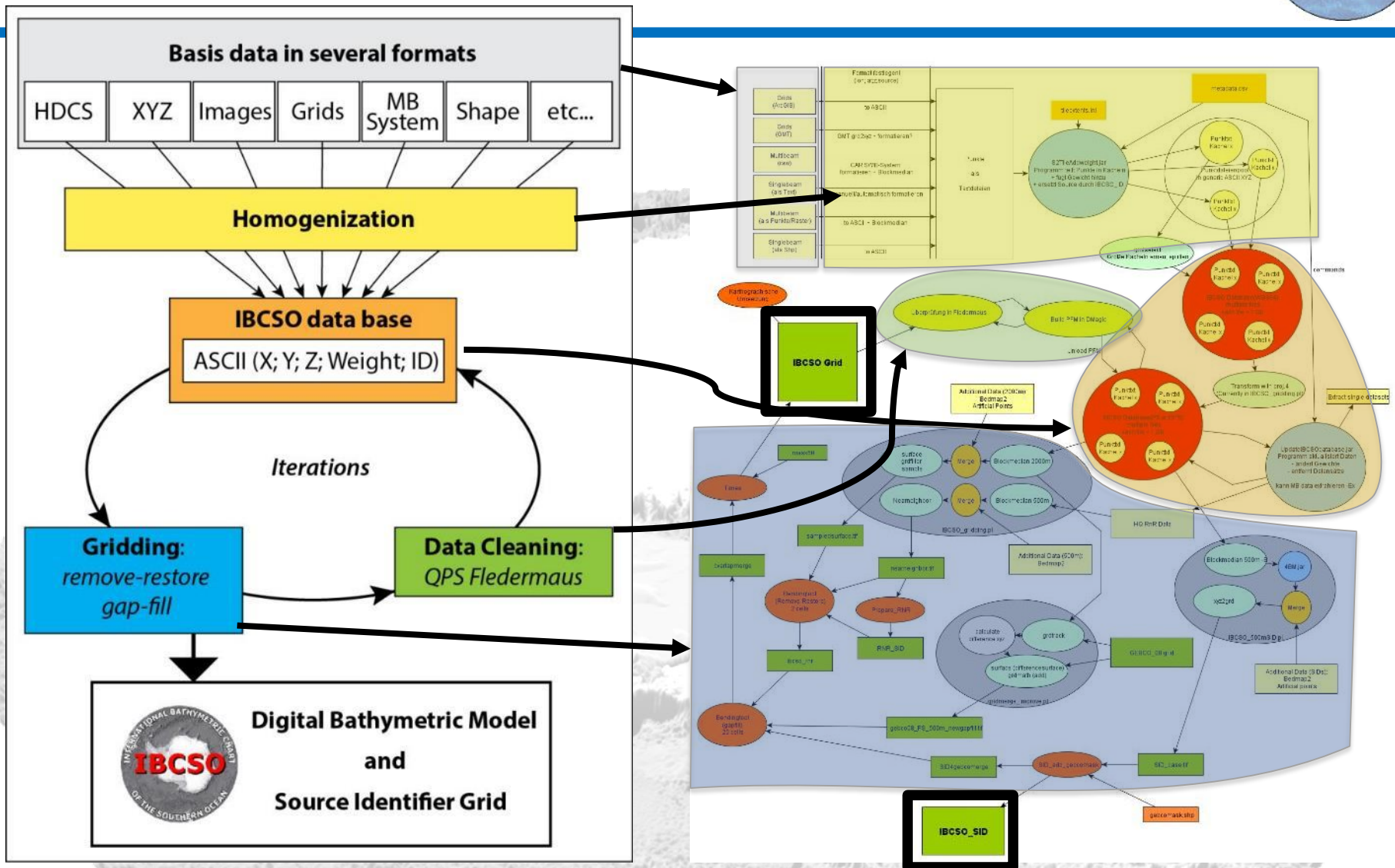
IBCSO

Gridding Methodology





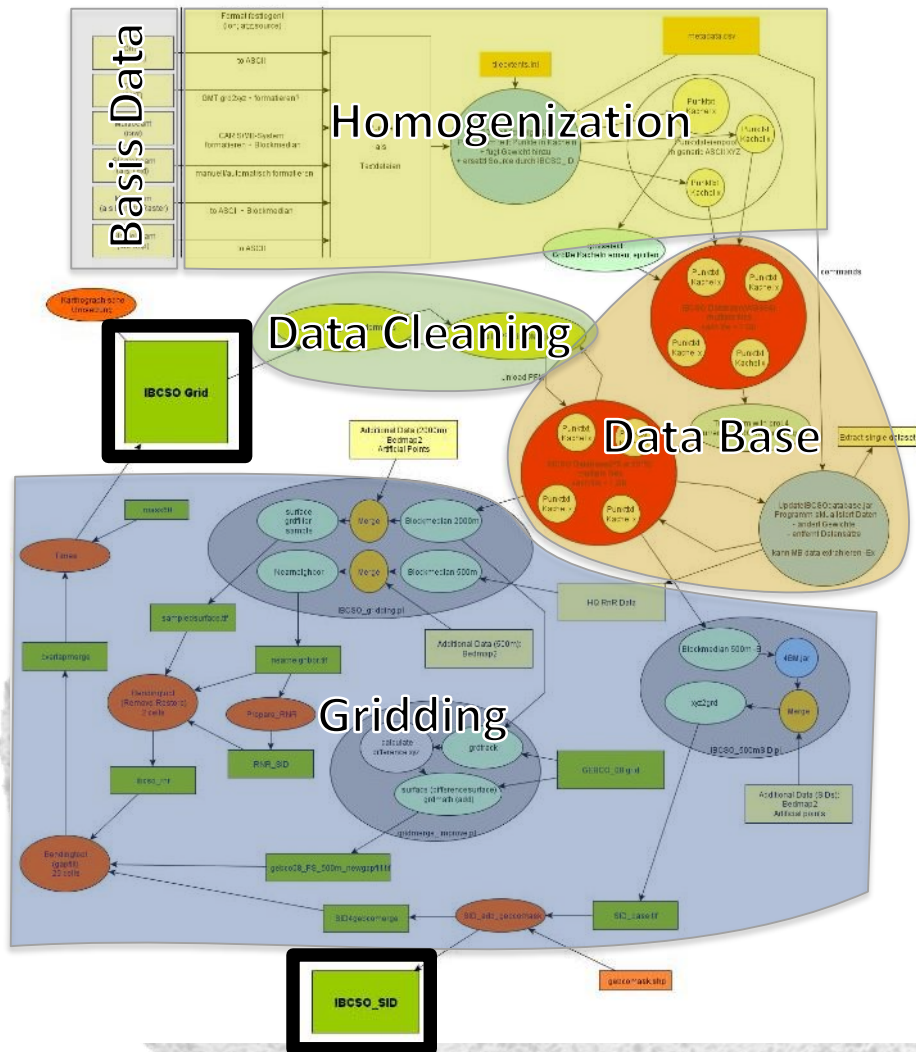
Gridding Methodology





- Homogenization ✓

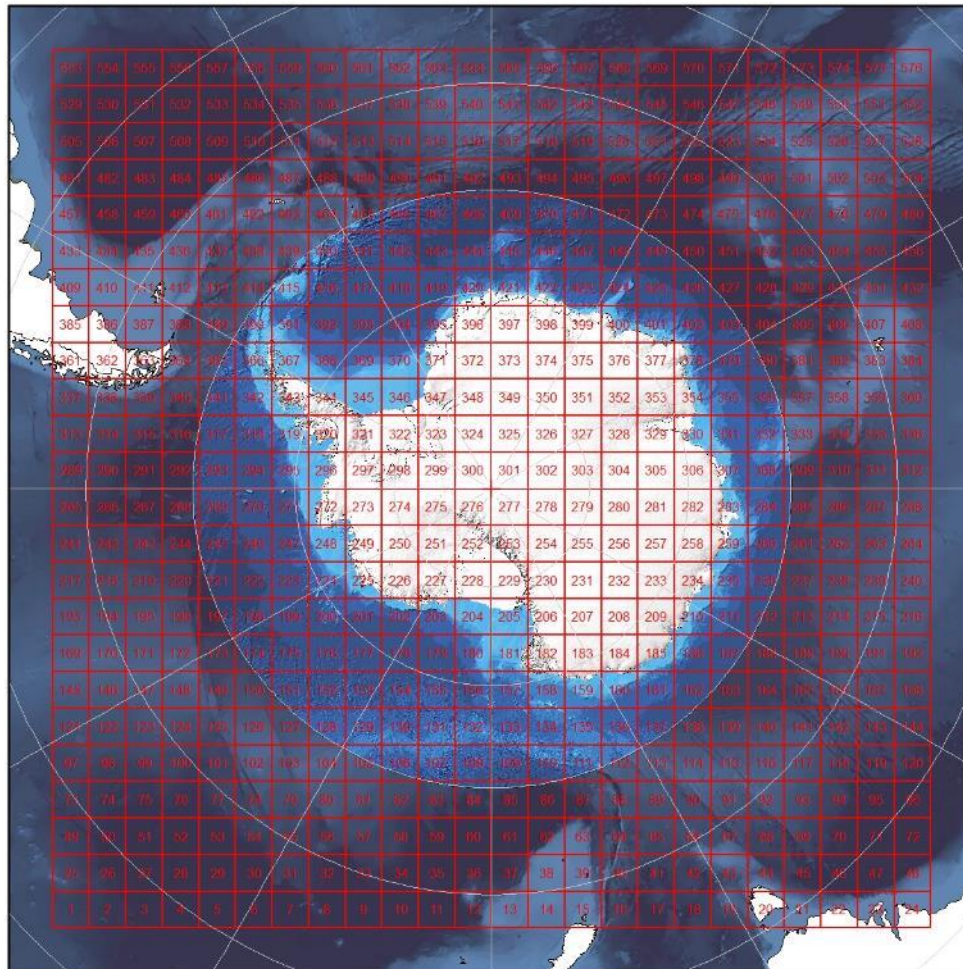
Gridding Progress



Preliminary Version for Seabed 2030
(IBCSO V1 data extended + AWI)

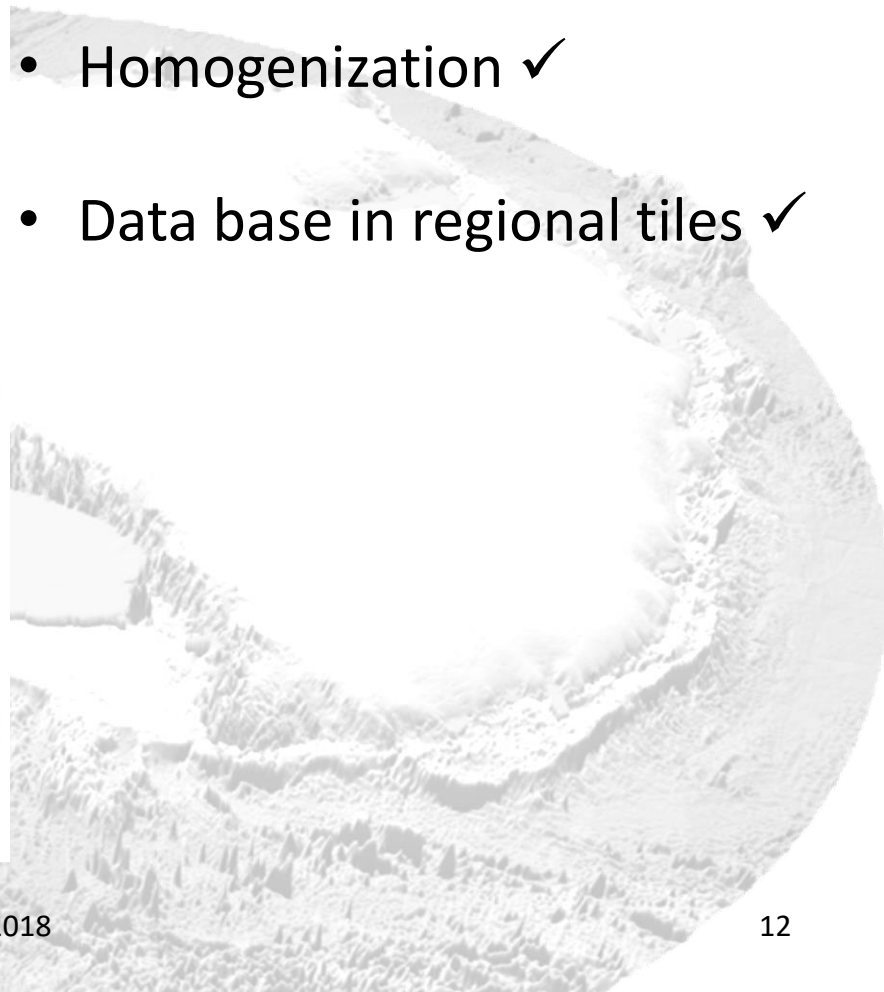
- Homogenization ✓
- Data base in regional tiles ✓

Gridding Progress

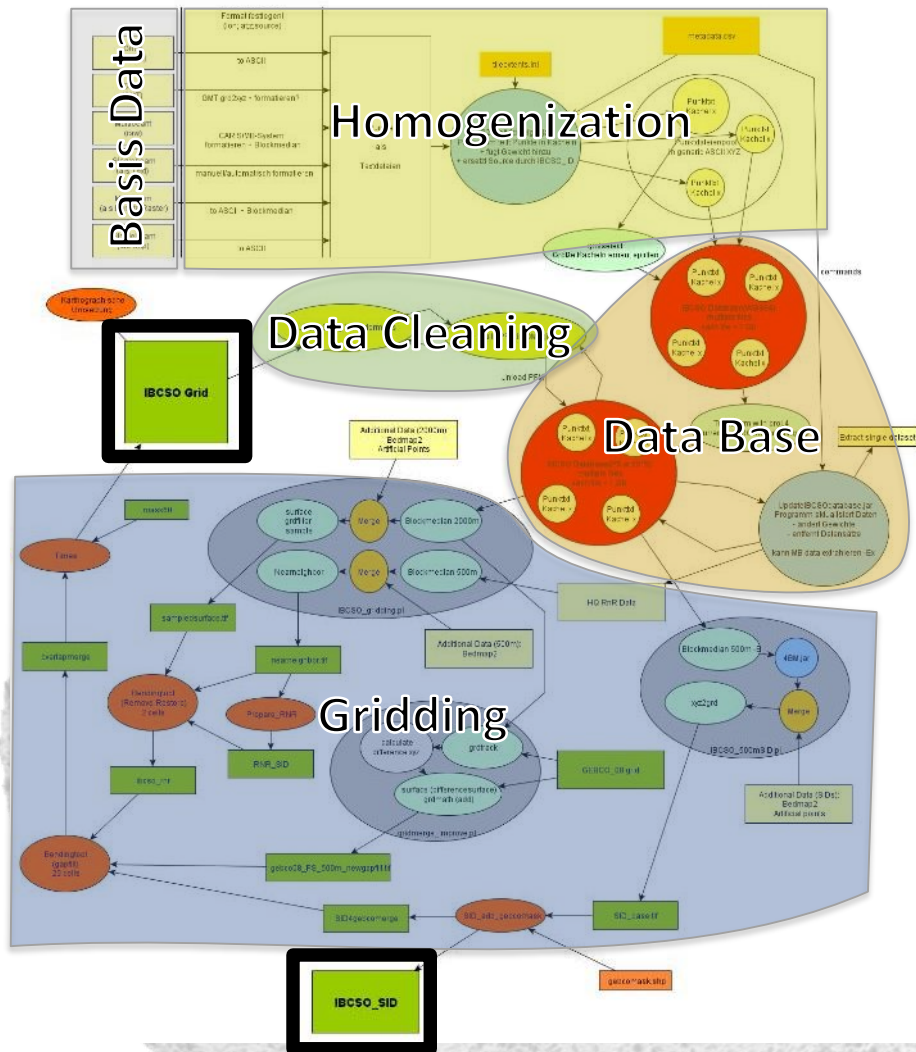


Preliminary Version for Seabed 2030
(IBCSO V1 data extended + AWI)

- Homogenization ✓
- Data base in regional tiles ✓



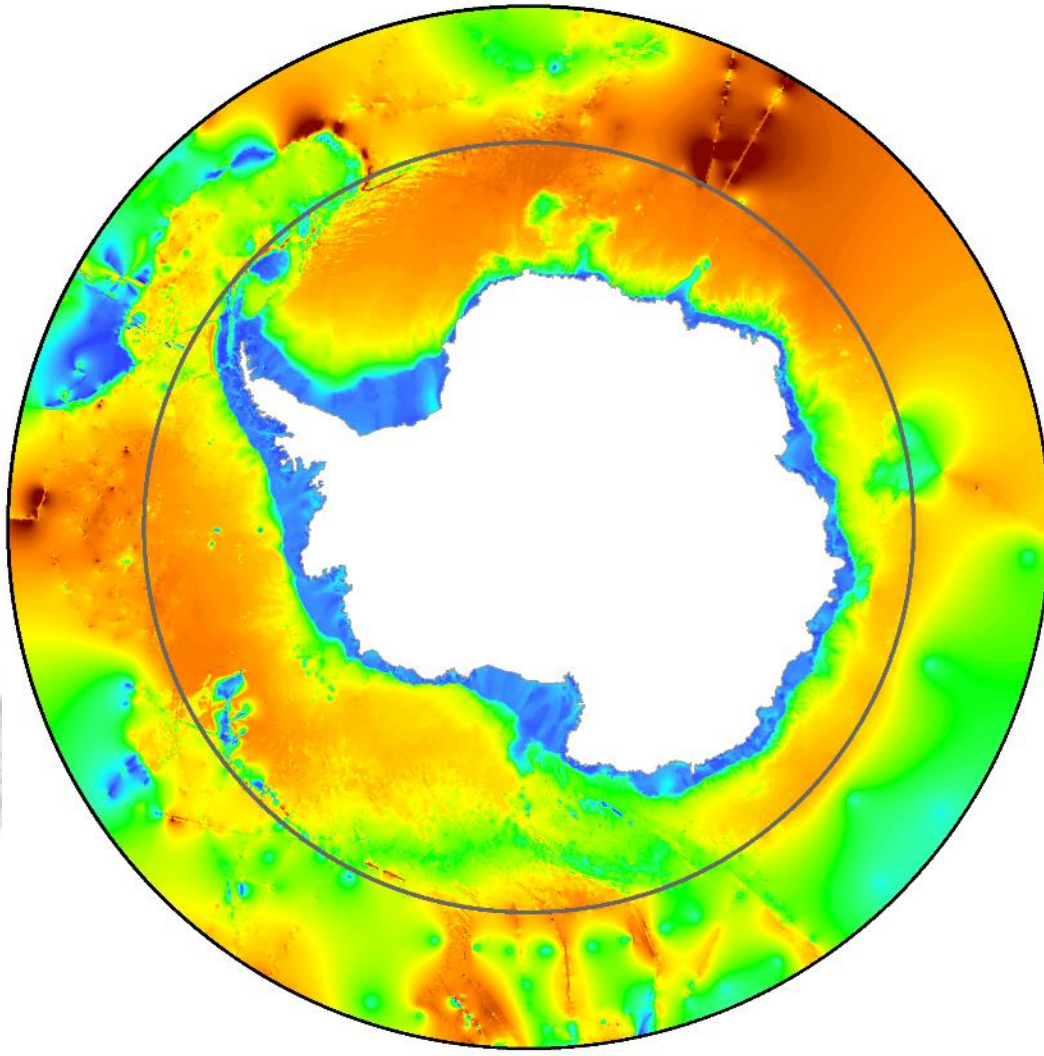
Gridding Progress



Preliminary Version for Seabed 2030
(IBCSO V1 data extended + AWI)

- Homogenization ✓
- Data base in regional tiles ✓
- Gridding (on the way)

Preliminary results



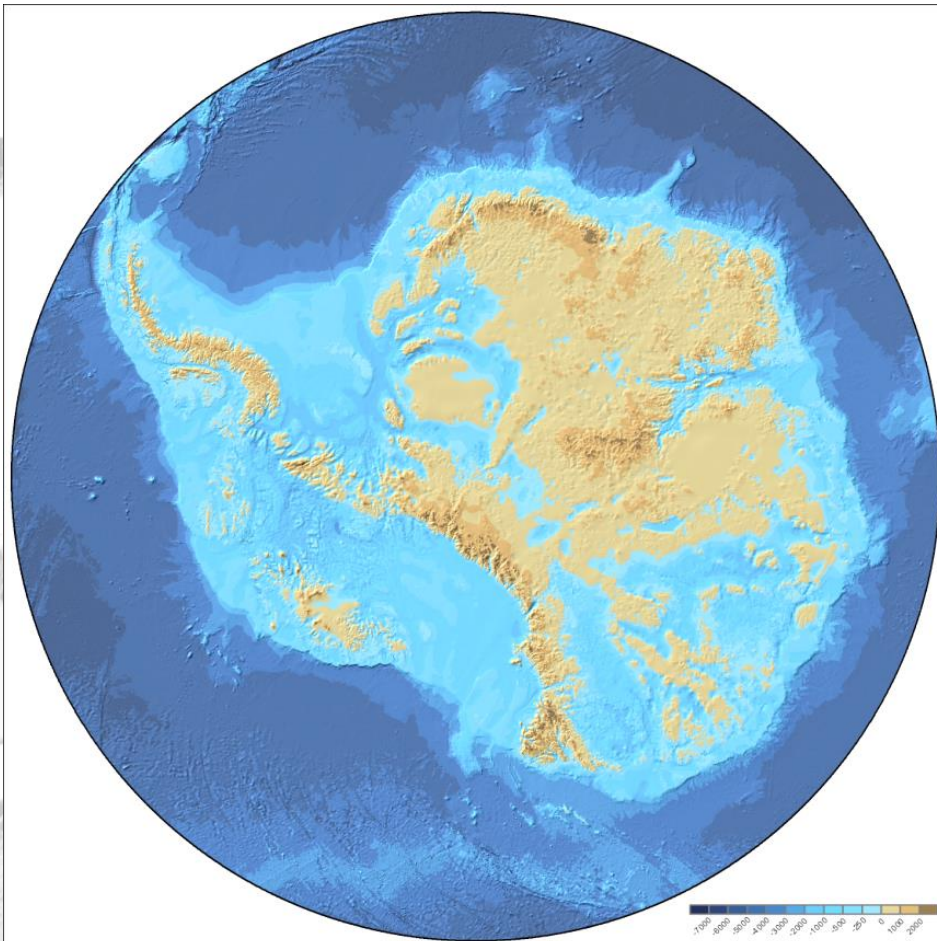
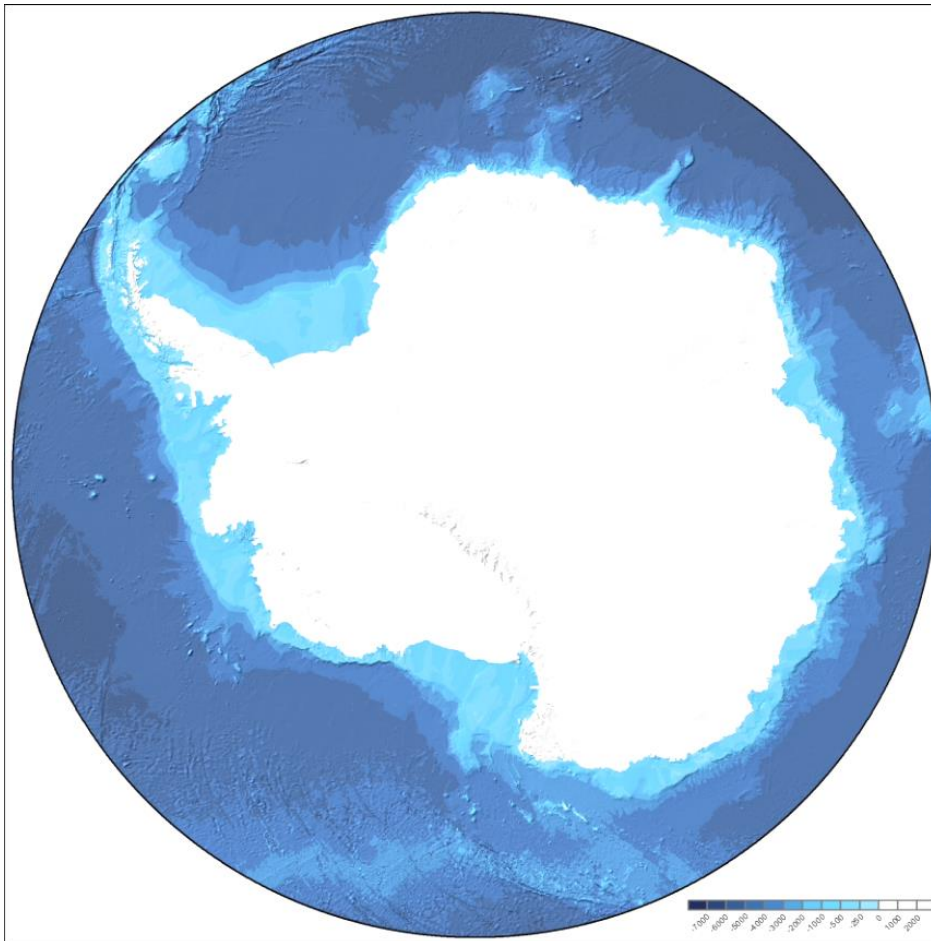
- Gridding works (so far only low resolution tested)
- Loads of issues/artefacts
- Several data need to be incorporated (GEBCO_14 data, topography, etc)

Coming steps



- Finalize preliminary version
- Streamline processes where possible and set them up on **Cray CS400**
- Integrate contributed data to data base
(including topographic data)

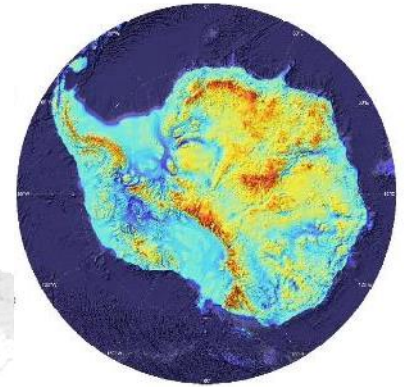
Topographic data



Bedrock topography



- Bedmap2 out since 2013 (in IBCSO V1)
- Bedmap3 Kick-off meeting at Polar2018 conference
 - Release of Bedmap3 expected later than IBCSO V2
 - Agreed to use grounding- and calvingline as boundary areas (mainly ice shelves)
- Bedmachine Antarctica (2018/19?)



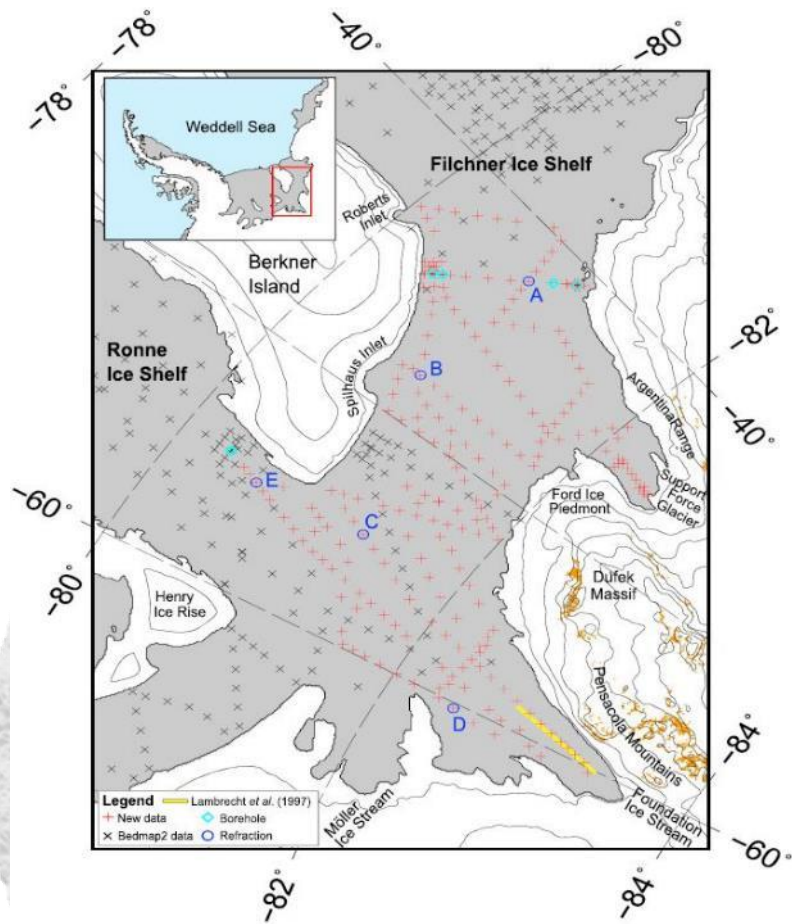
Bedrock topography



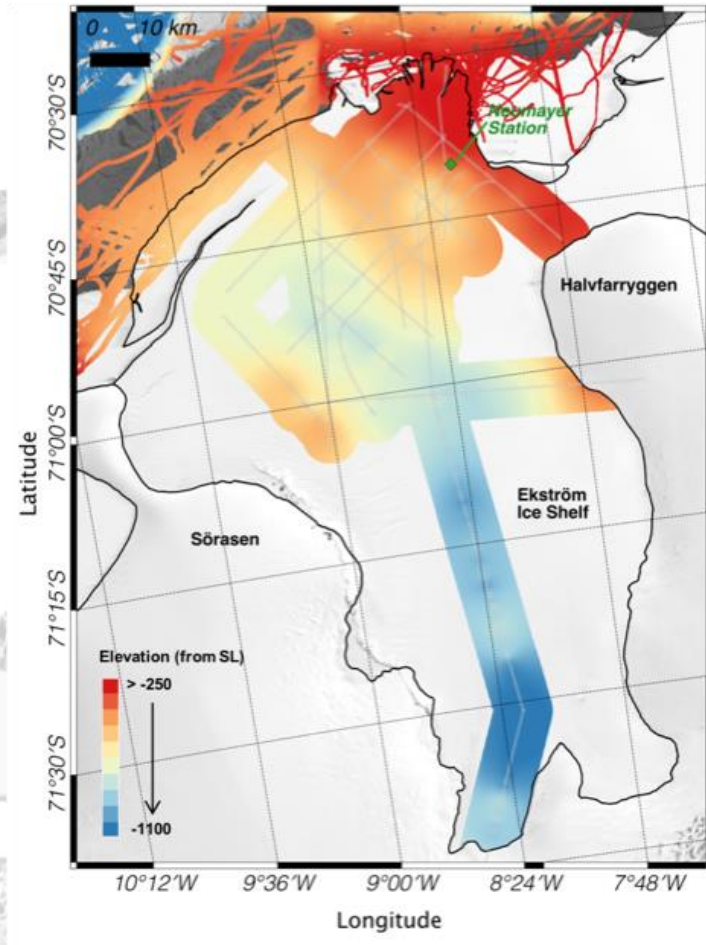
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- Bedmachine Antarctica (2018/19?)
 - Inclusion of ice shelf cavity data in V2



Ice shelf cavity (seismics)

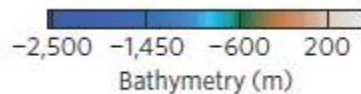
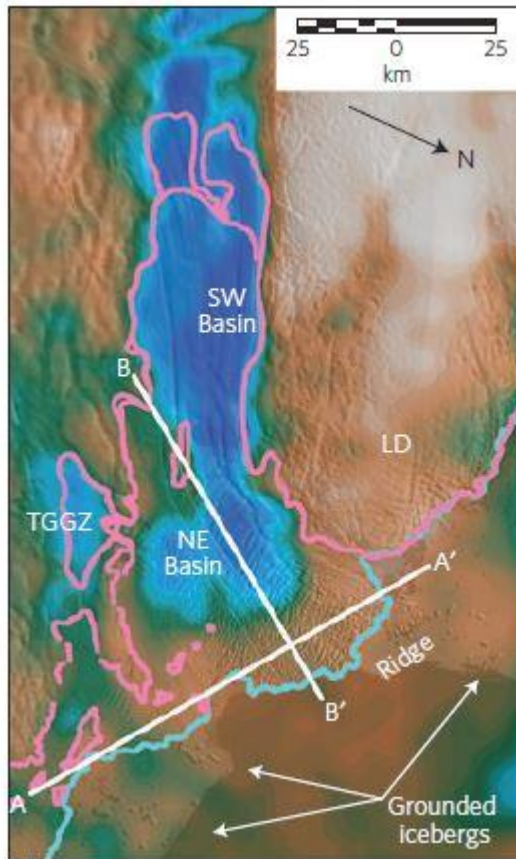


Rosier et al., 2018

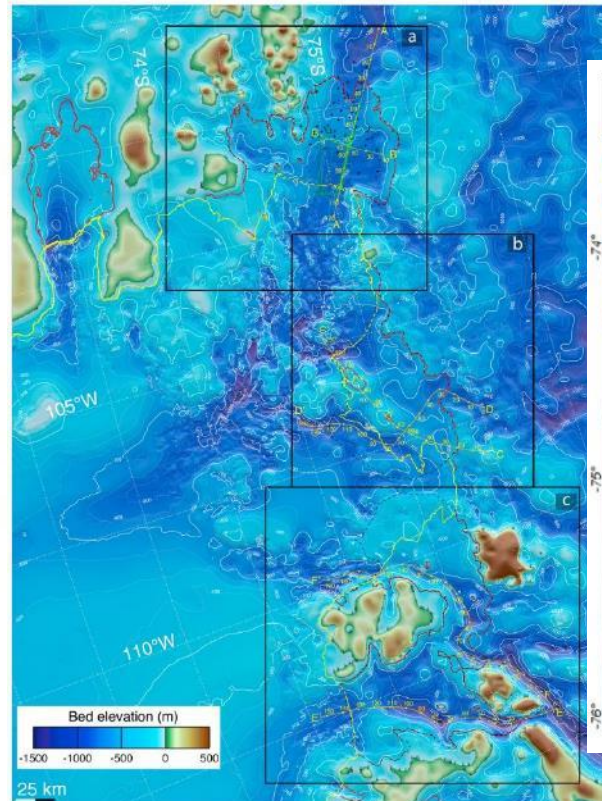


Smith et al., in prep

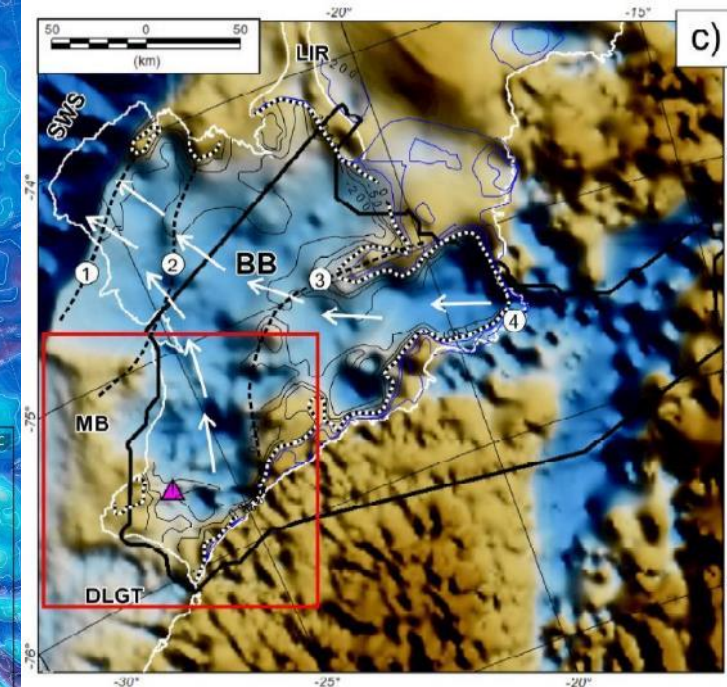
Ice shelf cavity (gravity inversion)



Greenbaum et al., 2015



Millan et al., 2017



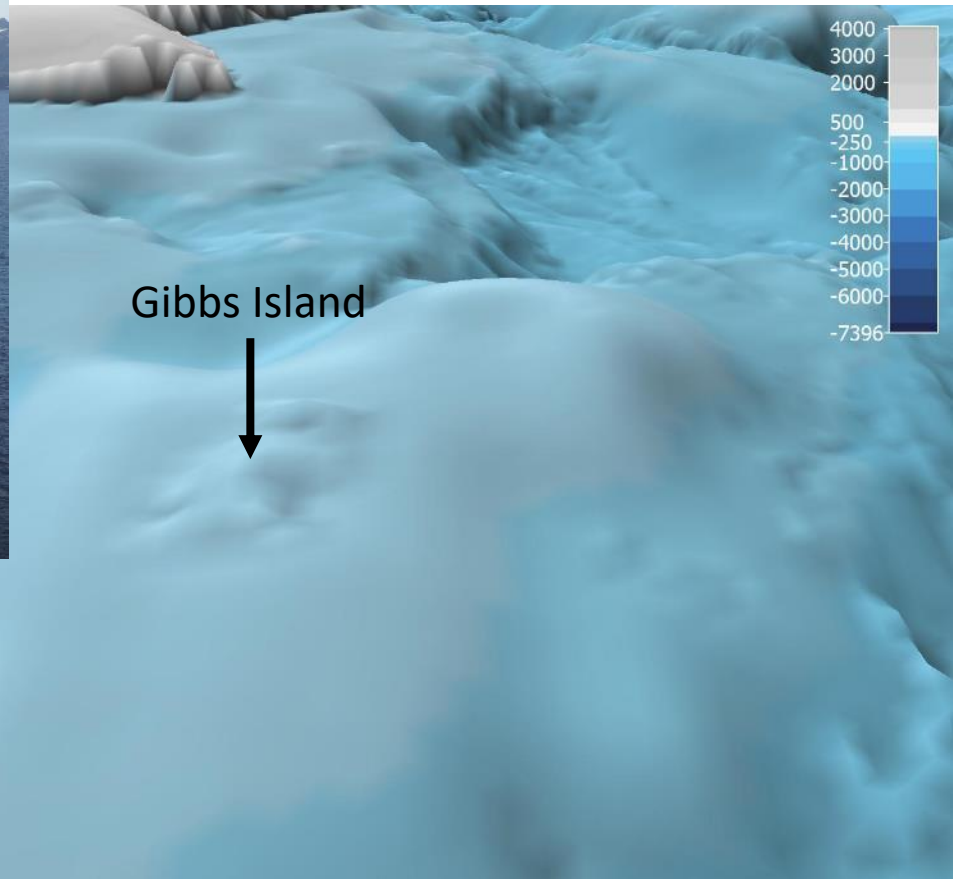
Hodgson et al., 2018

Other topography topics

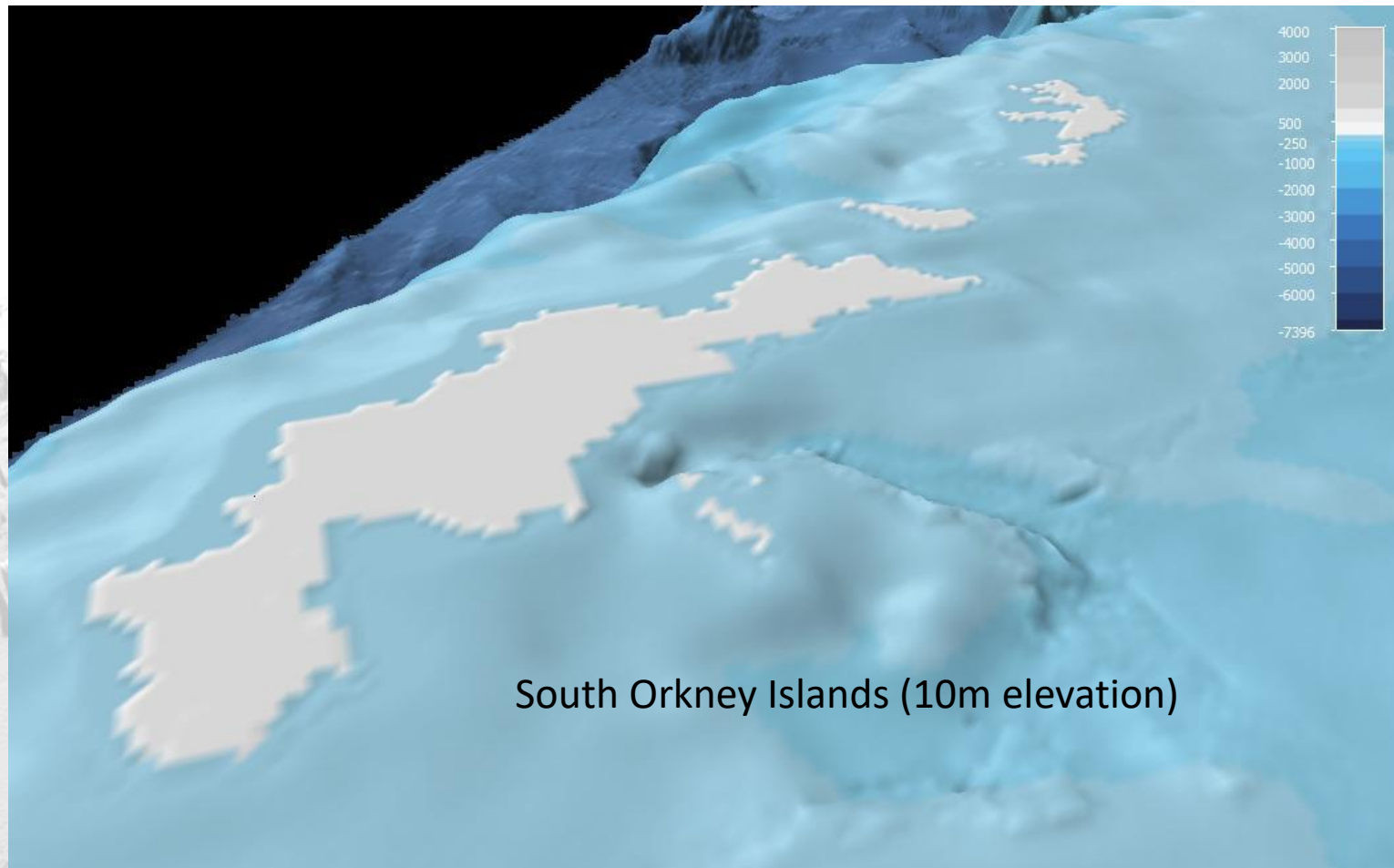


- IBCSO V1 issues
- No data used so far for the Subantarctic (50° to 60°S)

Topographic data (V1 issues)



Topographic data (V1 issues)



Topographic data (V1 issues)



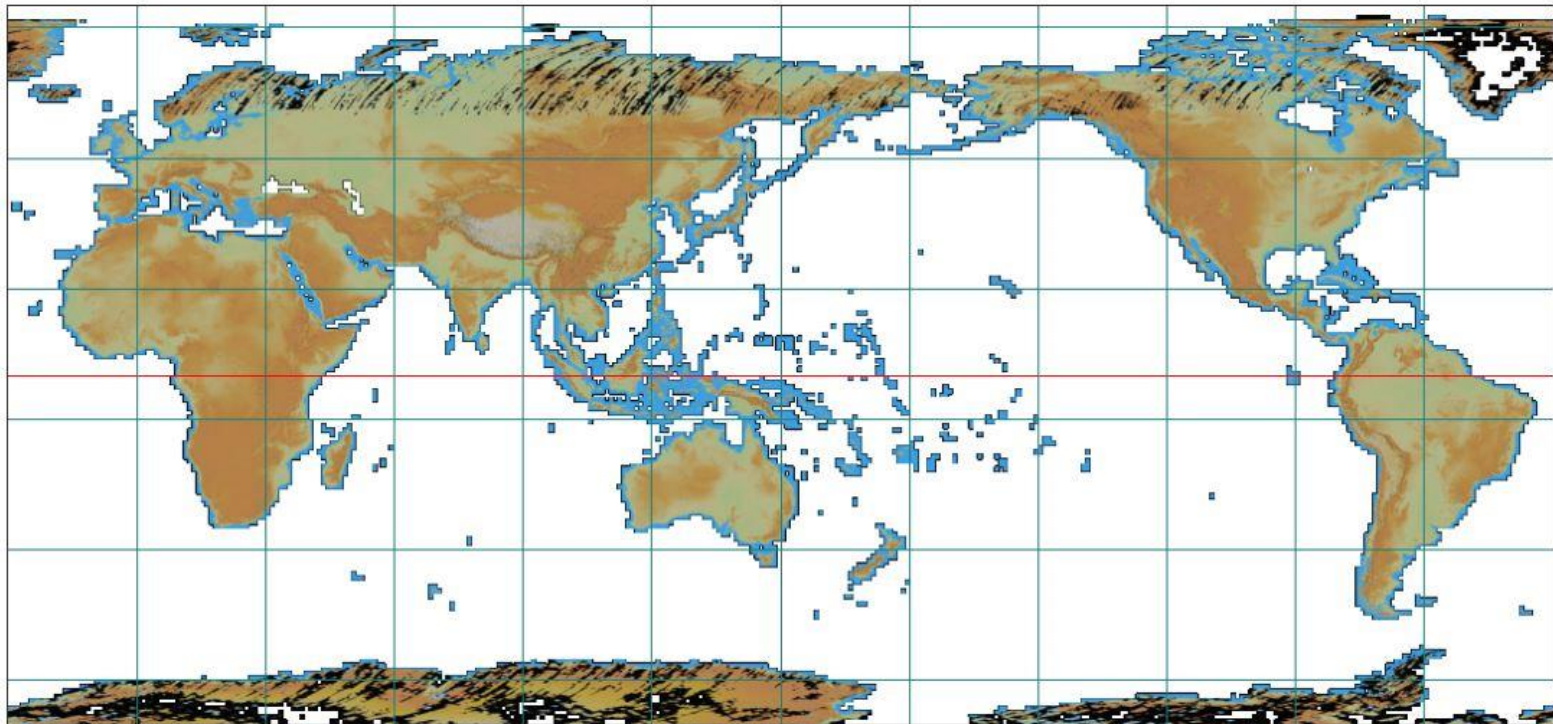
Subantarctic topography



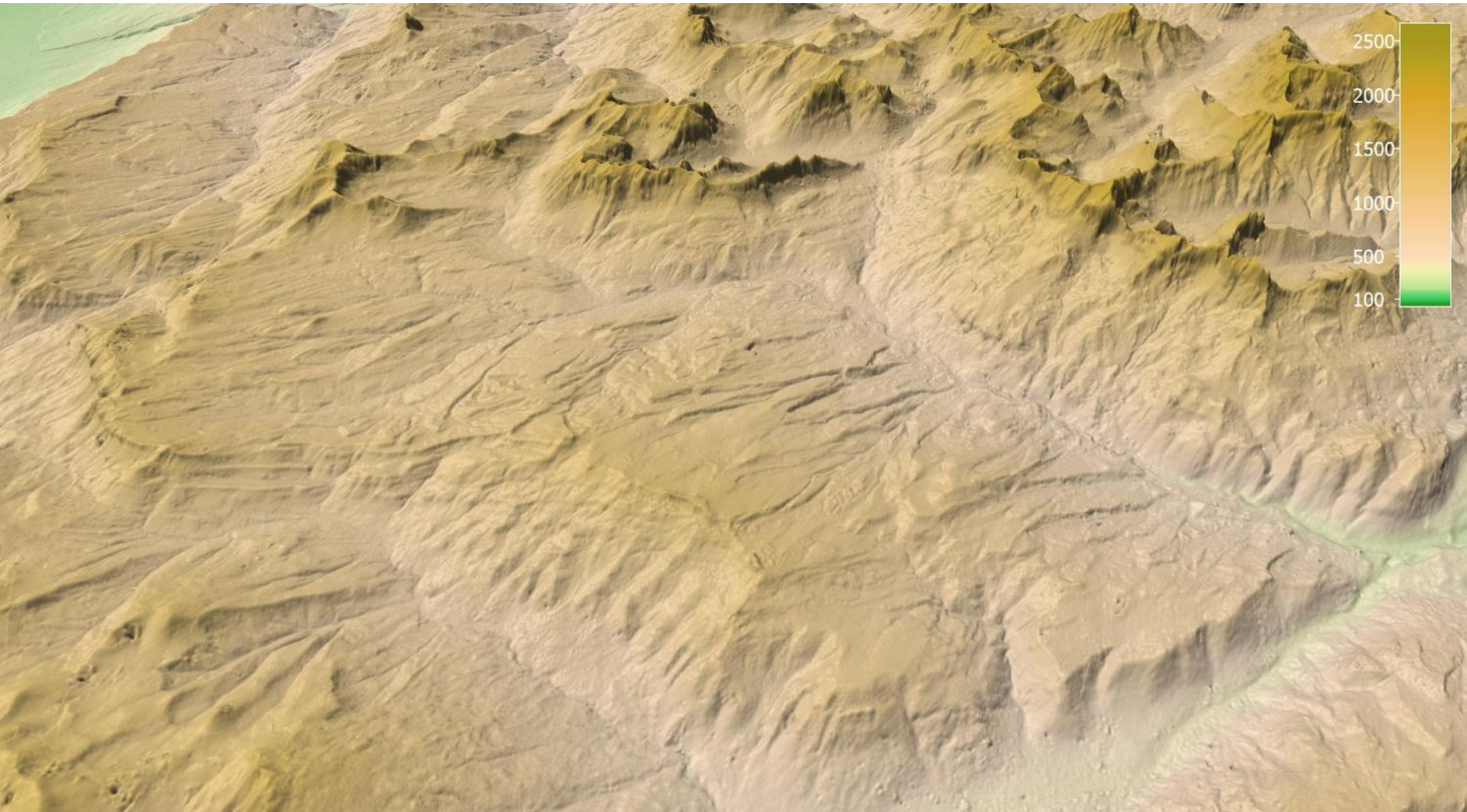
ALOS Global Digital Surface Model "ALOS World 3D - 30m" (AW3D30)

AW3D30 DSM data map

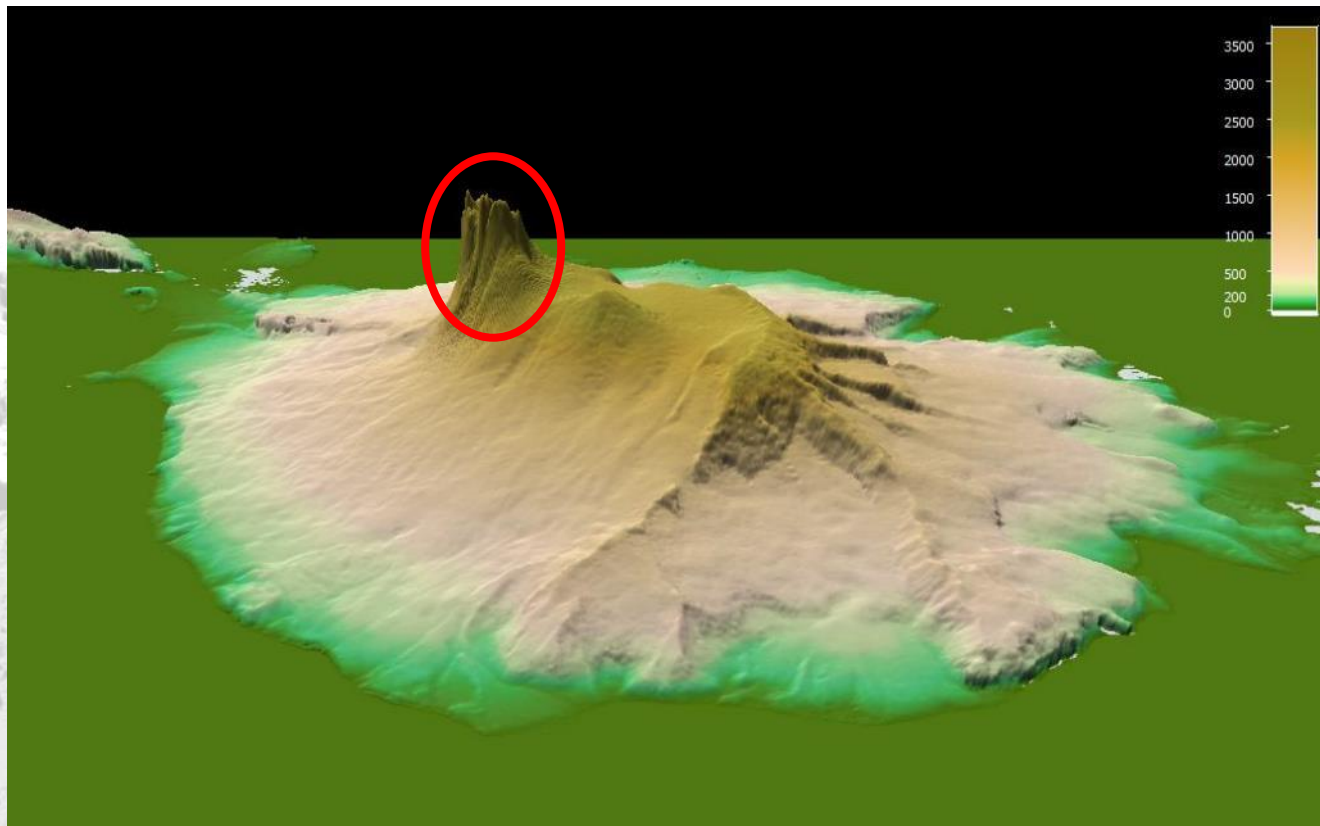
Please click the area which downloads a mosaic.



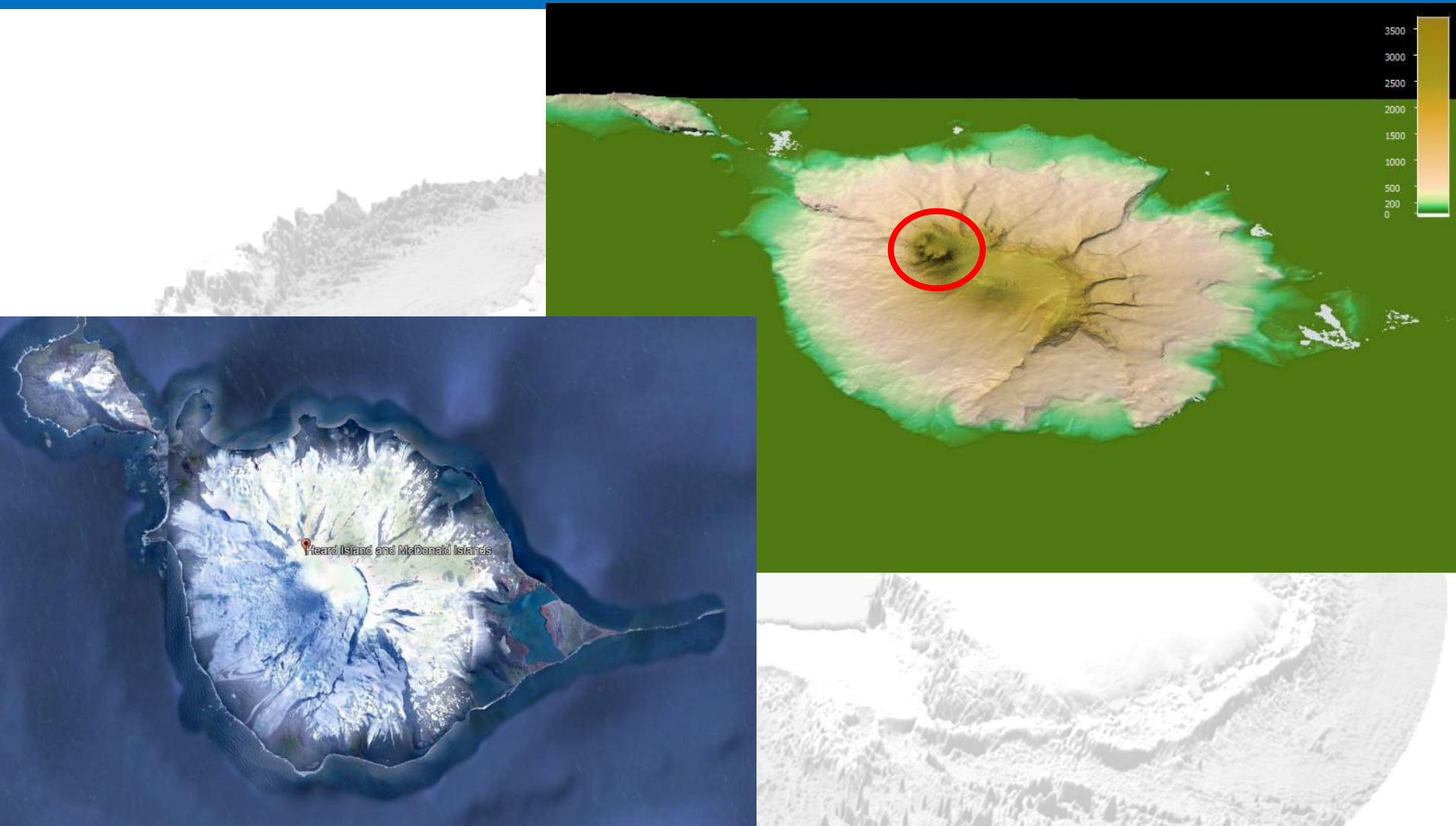
Subantarctic topography



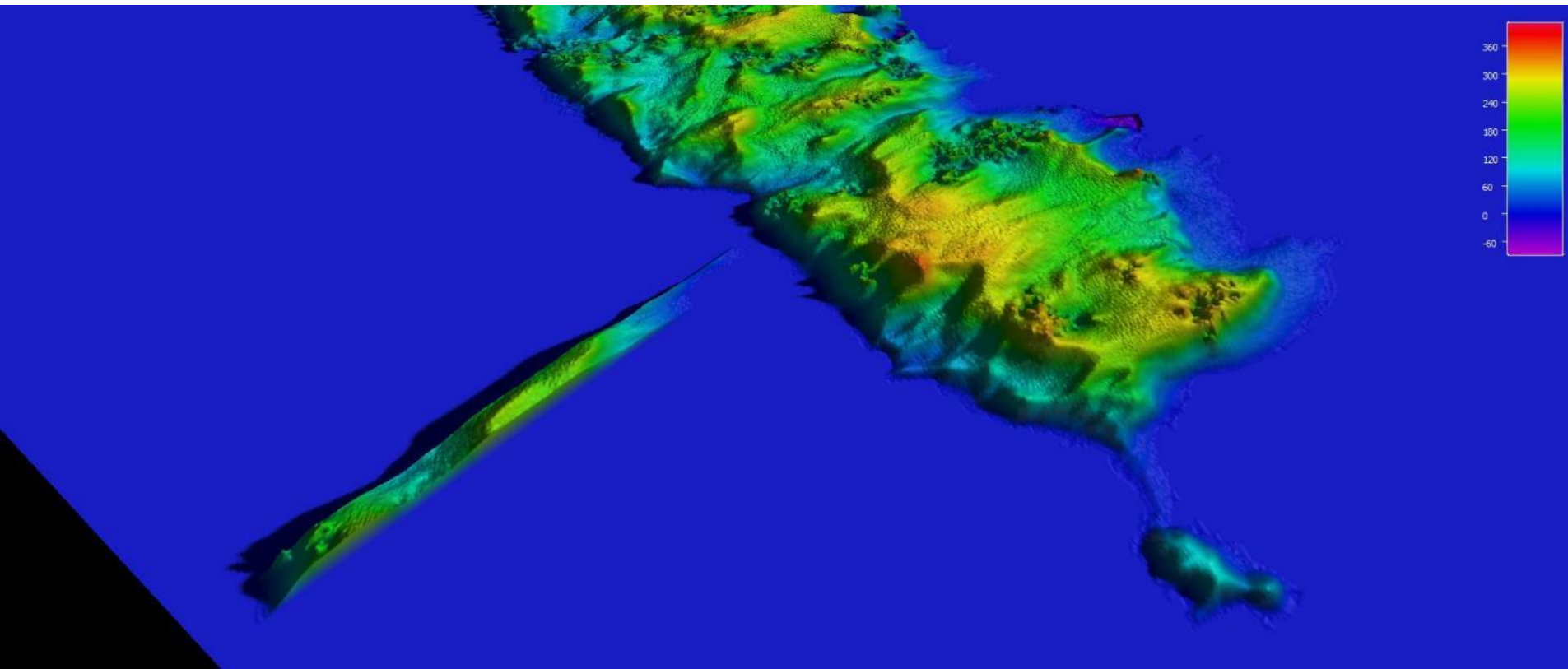
Subantarctic topography



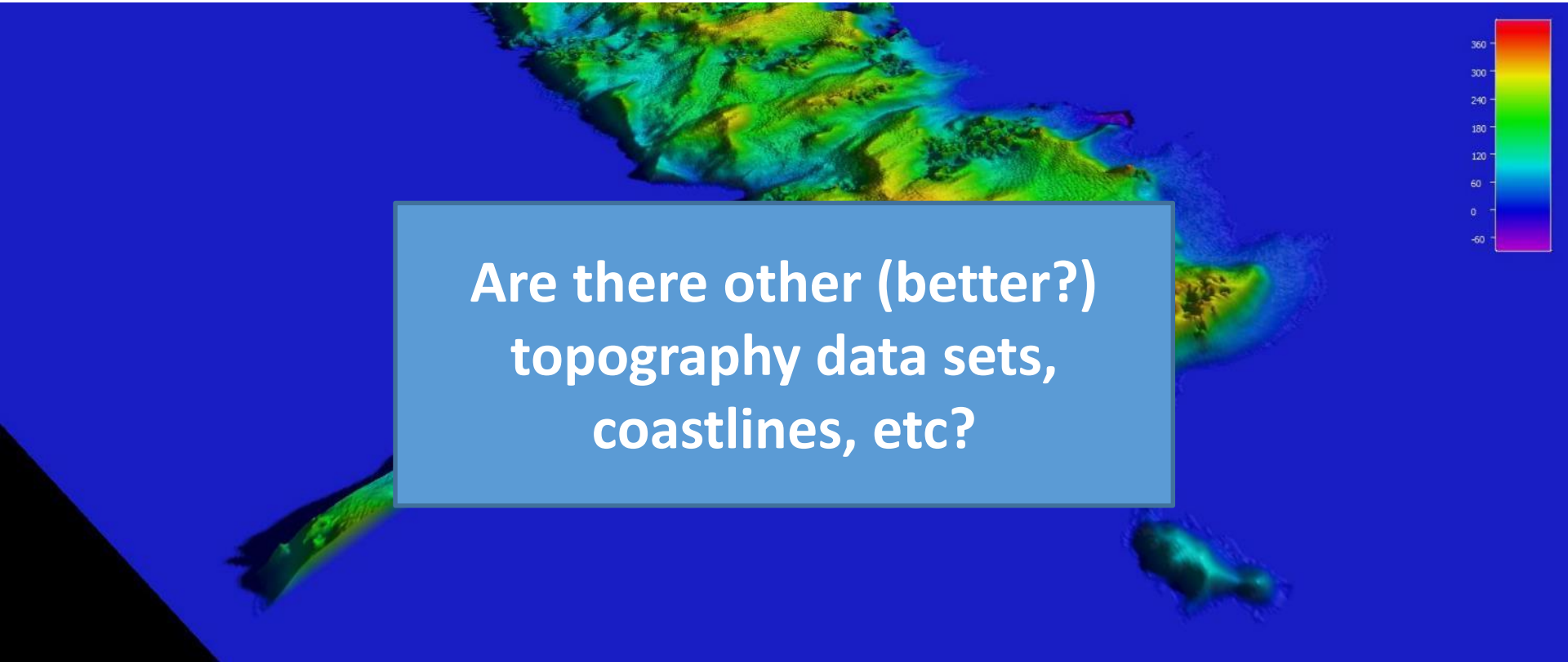
Subantarctic topography



Subantarctic topography



Subantarctic topography

A topographic map of a subantarctic region, likely the South Atlantic or Indian Ocean. The map uses a color scale to represent depth, with blue for deep areas and green/yellow for shallower areas. A large blue rectangular box is overlaid on the map, containing the text 'Are there other (better?) topography data sets, coastlines, etc?'. To the right of the map is a vertical color scale bar with numerical values from -60 to 360 in increments of 60, transitioning from purple at the bottom to red at the top.

**Are there other (better?)
topography data sets,
coastlines, etc?**