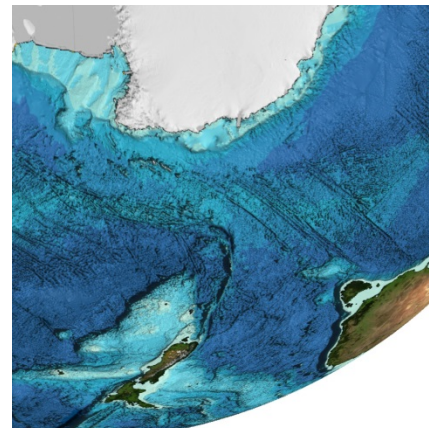
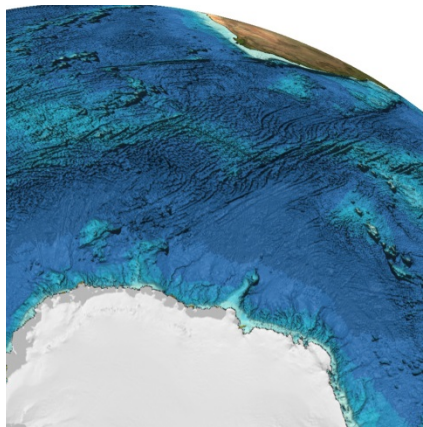
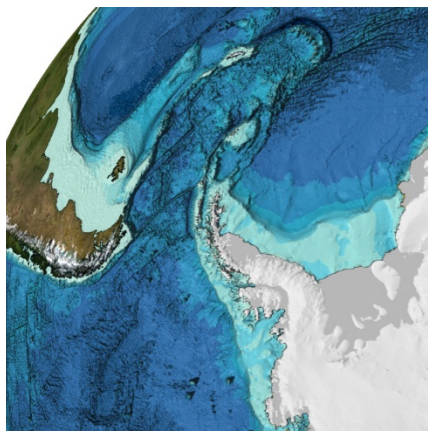




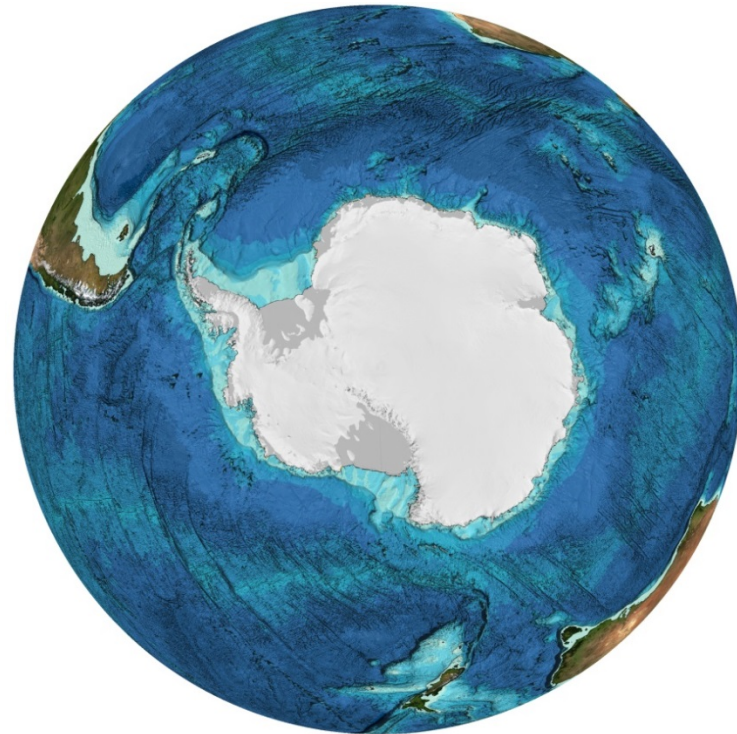
Mapping the Gaps in Antarctica



Dr Jodie Smith

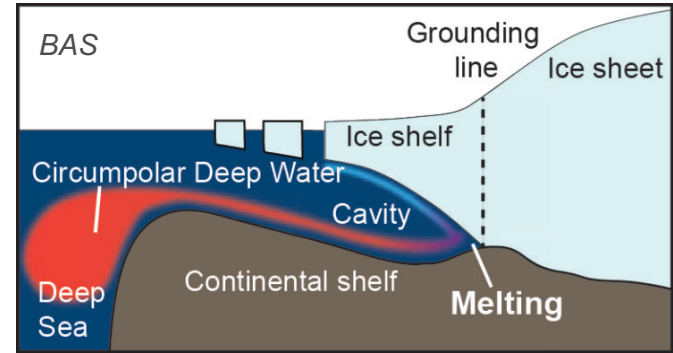
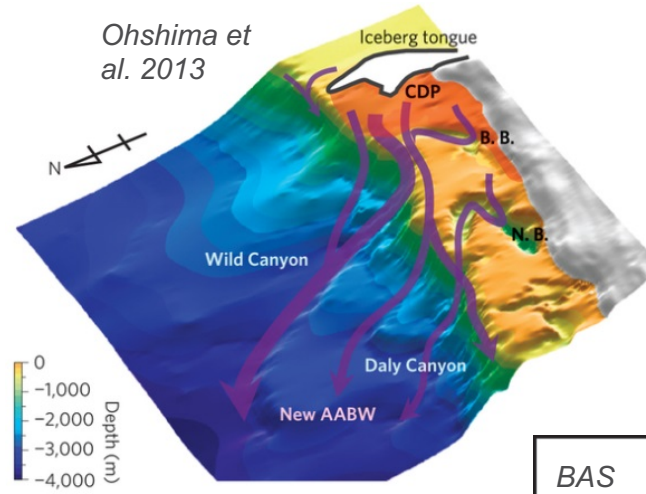
OUTLINE

- Antarctic-specific applications
- Existing data
- Plans for the future (IBCSO, Seabed 2030)
- Opportunities for mapping in East Antarctica
- The role of collaboration



GEBCO_14 (Weatherall et al. 2015)

APPLICATIONS OF BATHYMETRY DATA IN ANTARCTICA

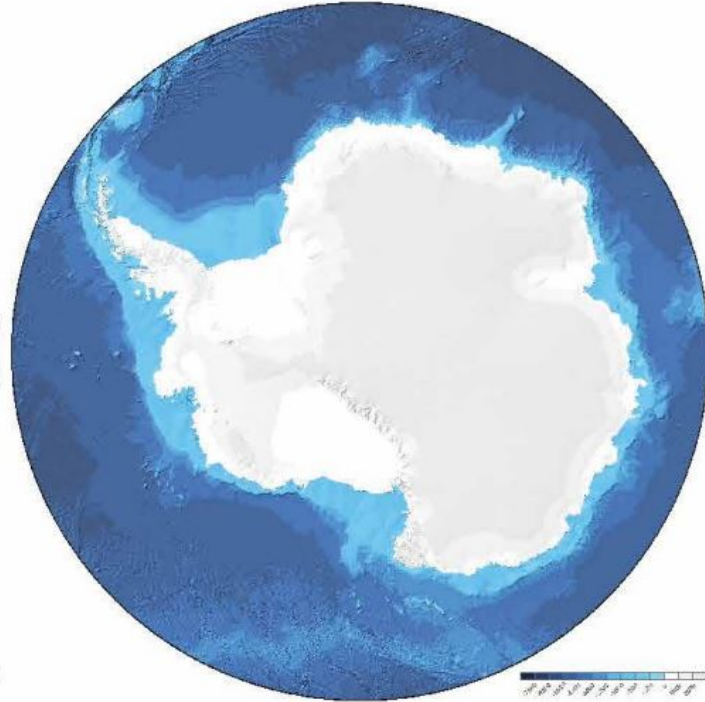


EXISTING DATA

IBCSO Version 1.0 - bedrock



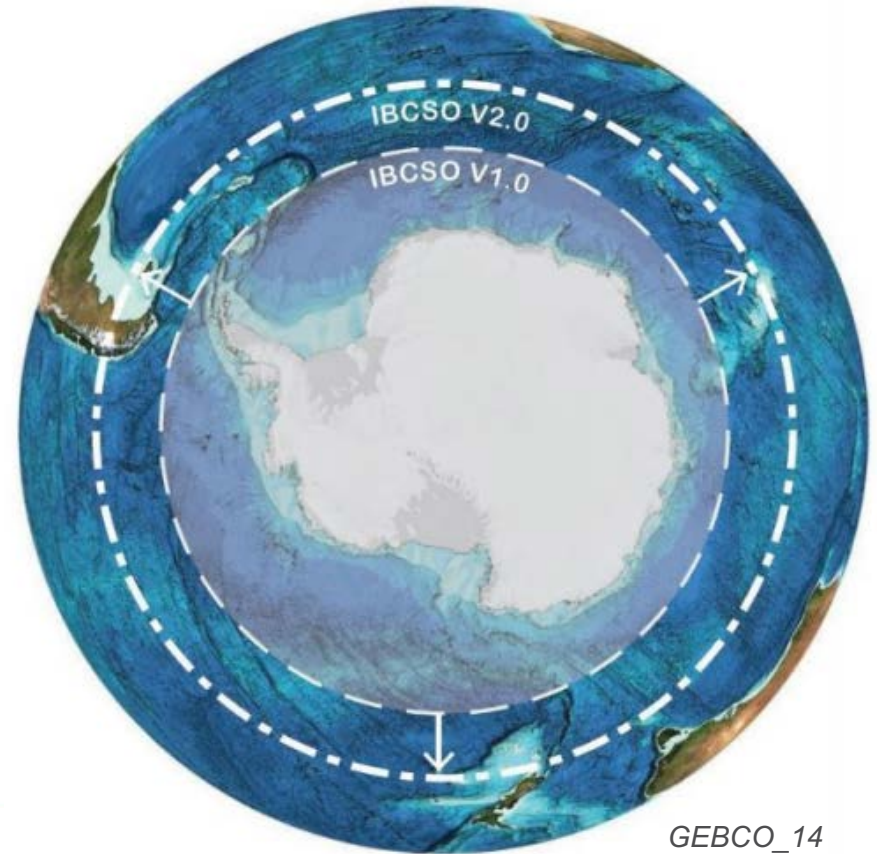
IBCSO Version 1.0 - icesurface



“approximately 83% of the offshore 500 x 500 m grid cells of the IBCSO DBM are left unconstrained by depth data” (Arndt et al. 2013).

PLANS FOR THE FUTURE - IBCSO

- Larger extent
- 2.5 times the area as Version 1.0!
- 500 m resolution
- Currently compiling data – to Dec 2018
- Data release and publication - late 2019

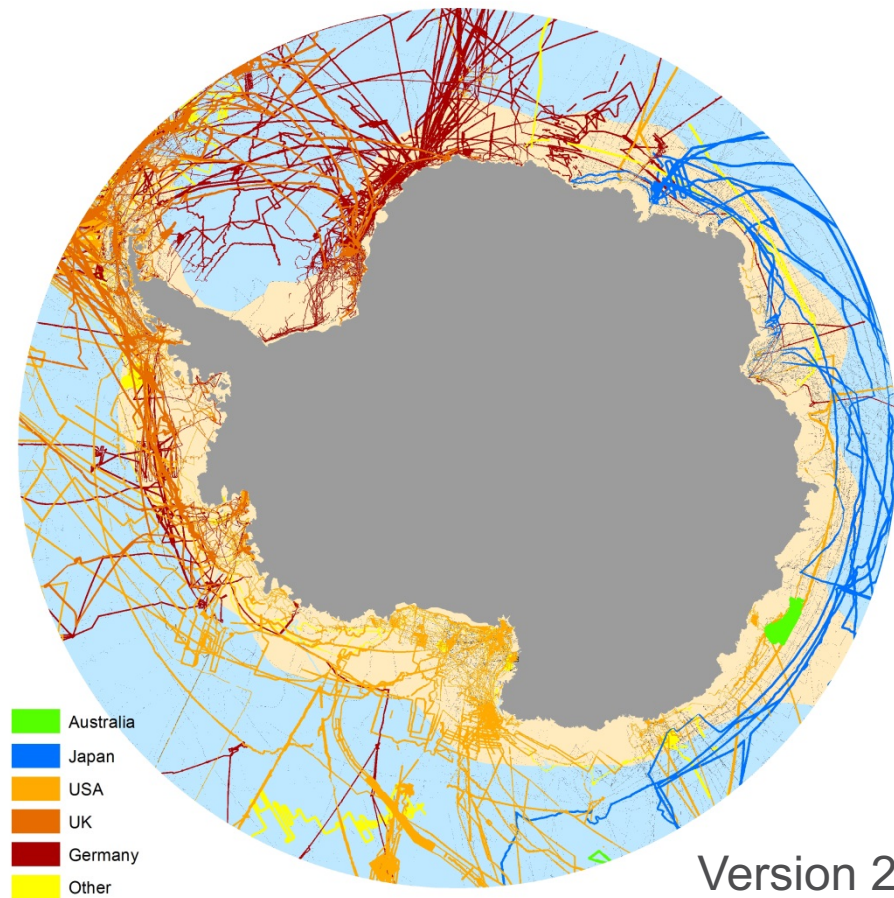
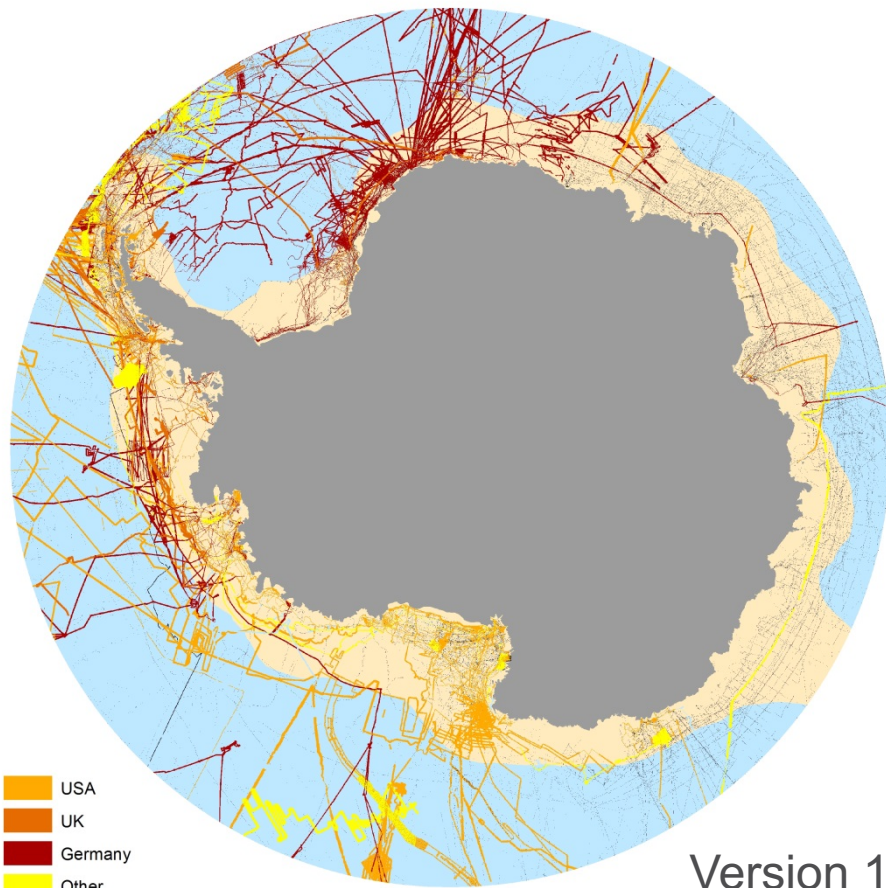


PLANS FOR THE FUTURE - SEABED 2030

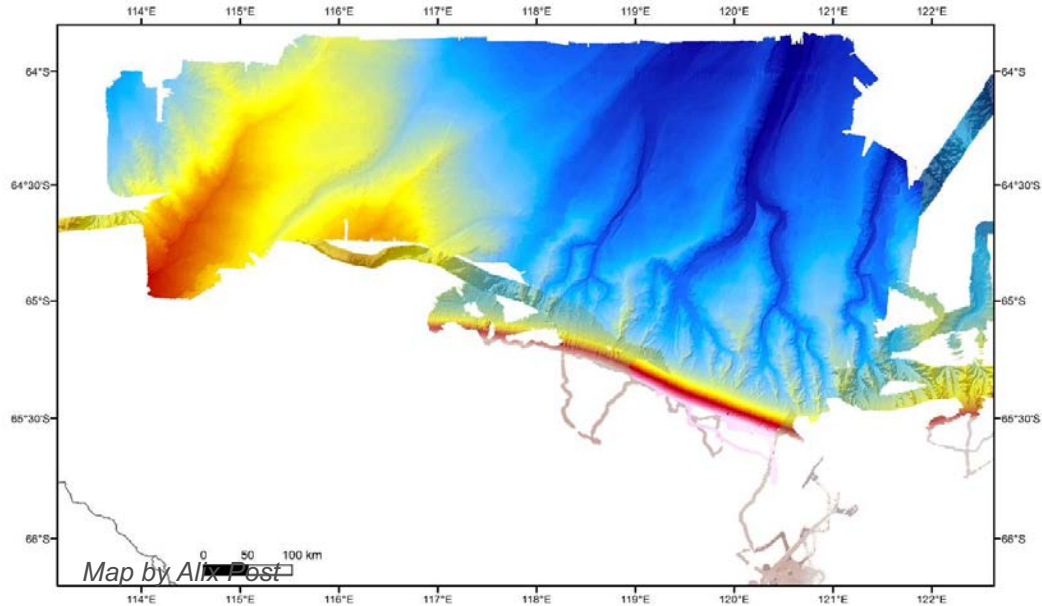
- IBCSO Version 2 = Seabed 2030 Southern Ocean region
- Common goals
- Both managed through AWI



IBCSO SOURCE DATA



OPPORTUNITIES FOR THE FUTURE



OPPORTUNITIES FOR THE FUTURE

- Australia's new icebreaker - *RSV Nuyina*
- Under construction – due in 2020
- Full ocean depth multibeam capabilities
- Several annual transit voyages
- Dedicated marine voyages



COLLABORATION - AUSTRALIA



Australian Government

Department of the Environment and Energy
Australian Antarctic Division



**AUSTRALIAN
ANTARCTIC
PROGRAM**



Australian Government
Department of Defence



Australian Government
Geoscience Australia



AusSeabed



COLLABORATION - INTERNATIONAL

- Japan and Australia
- 4th Japan-Australia workshop on Antarctic Science – July 2018
- Multidisciplinary – all recognise the need for bathymetry



LETS MAP THE GAPS IN ANTARCTICA

