

# GEBCO Hi-Res Update

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MARINE GEOSCIENCE  
DATA SYSTEM  
[marine-geo.org](http://marine-geo.org)

# 2014 Accomplishments - GMRT

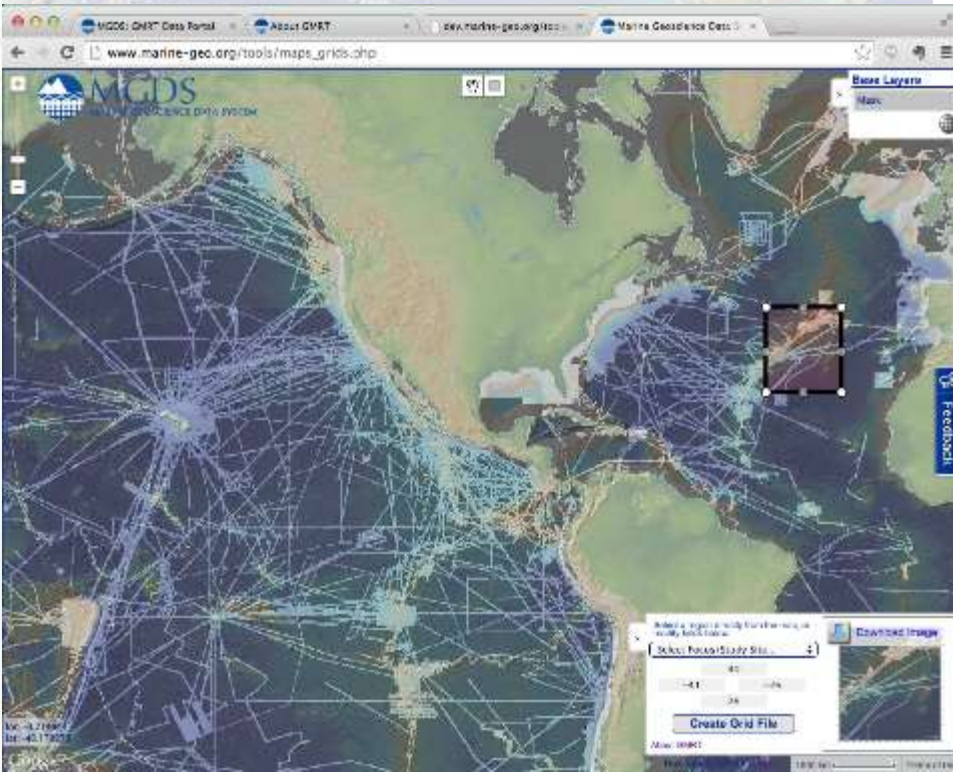
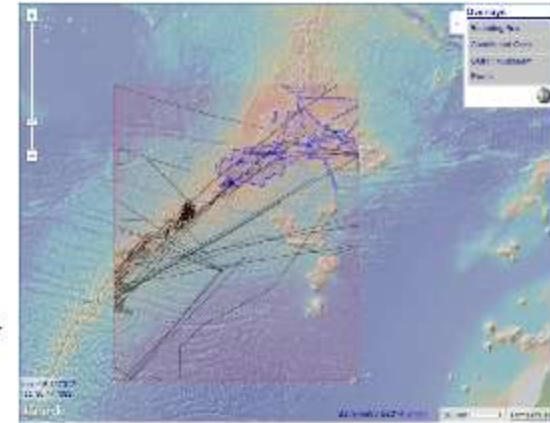
- Two Releases
  - GMRT v2.6 (+48 cruises) – *May 2013*
  - GMRT v2.7 (+29 cruises) – *Nov 2013*
- Improved Contributed Grids Logic\*
  - Improved precision & resolution (images/grids)
- Improved Grid Composition Logic\*
  - Streamlined & Consolidated Code
  - Modified for GEBCO-HiRes Product
- New Services
  - Improved GMRT MapTool Interface
  - Web Services: Grid, Image, Attribution Services



# Beta Attribution Service

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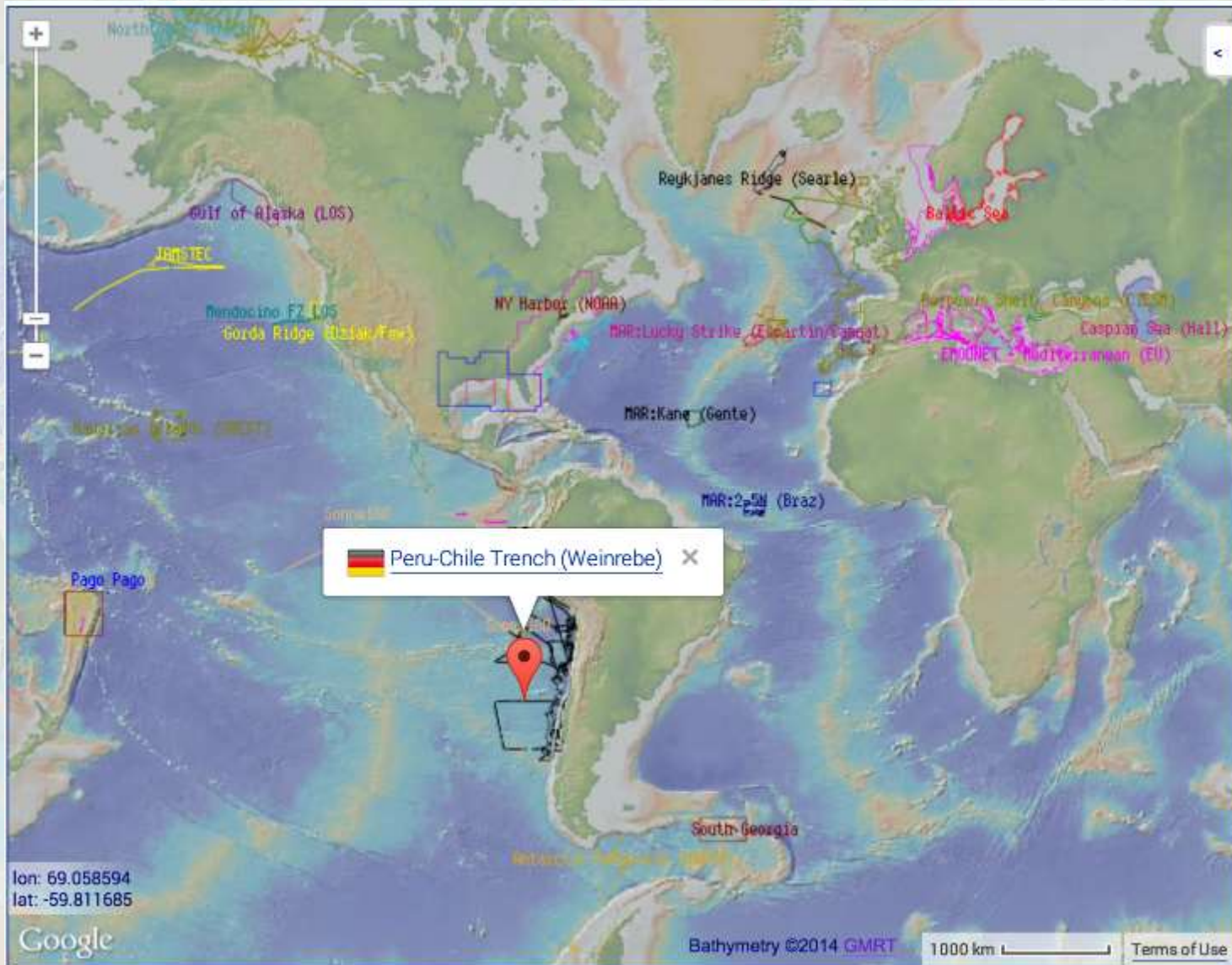
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# Improved Geometries for Contributed Grids



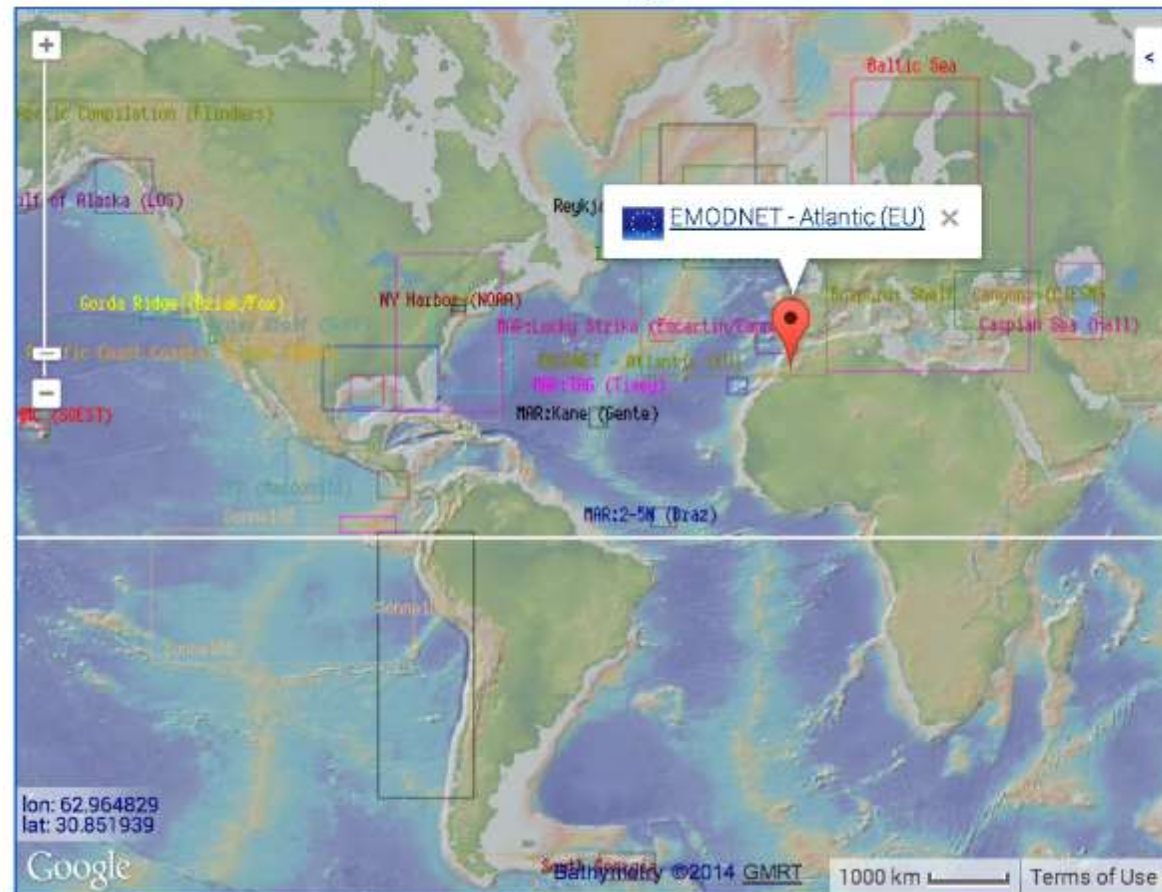
Regional mapping

ISCRUM

Mapping projects

## GEBCO High-Res

GEBCO High-Res is a prototype effort to create a new high-resolution GEBCO data product. Data currently displayed in the map include 100-m data from the LDEO GMRT synthesis as well as several contributed grids provided by international colleagues. Use the map to explore data sources and contributors. Please [contact us](#) with comments or suggestions.





# Update to GEBCO Spring 2014

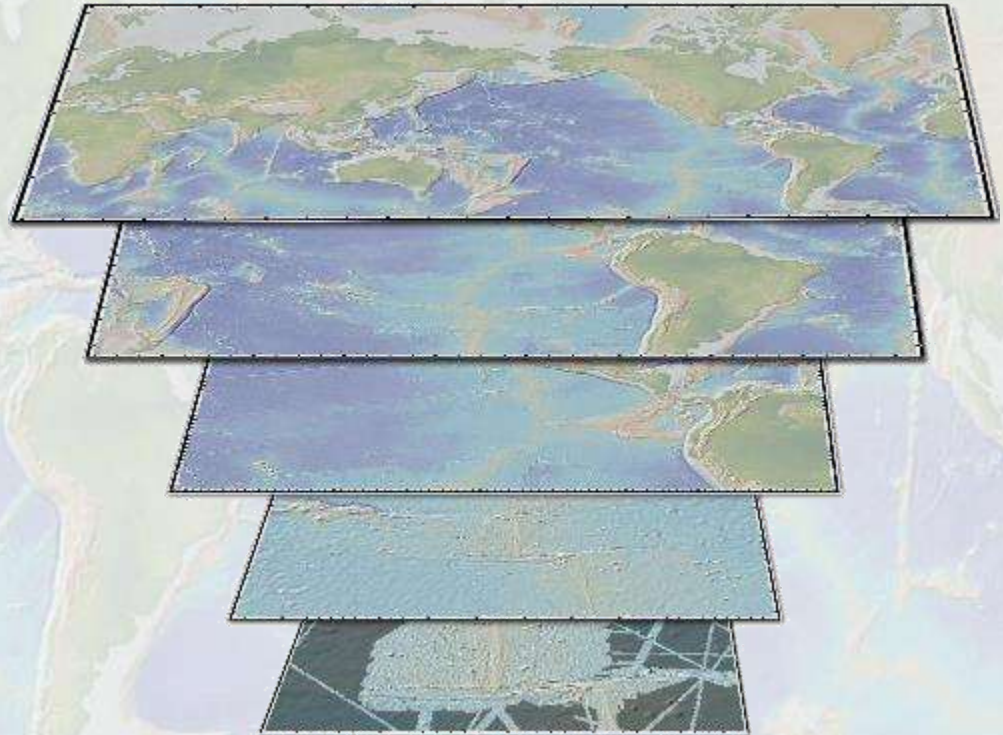
- GMRT -- *Under development (Spring 2014)*
  - New Web Service for accessing gridded compilation ✓
  - Integration of attribution in web services ✓
  - New User Interface for web app ✓
- GEBCO-HiRes -- *Under development (Summer 2014)*
  - Optimize workflows/tools for integrating gridded data ✓
  - Optimize access infrastructure ✓
    - Pre-compose gridded data compilation ✓
    - *Pre-compose Beta GEBCO-HiRes compilation*
  - *Optimize performance of access services*
  - *Solicit new prototype data contributions*
  - Demo & Report at GEBCO meeting in December 2014

# GMRT Components

Global & Regional  
Grids ( $\geq 500$  m res.)  
e.g. *GEBCO\_08*, *IBCAO*

Contributed  
Grids ( $< 500$  m res.)

LDEO 100-m  
compilation\* (ping  
files in public domain)

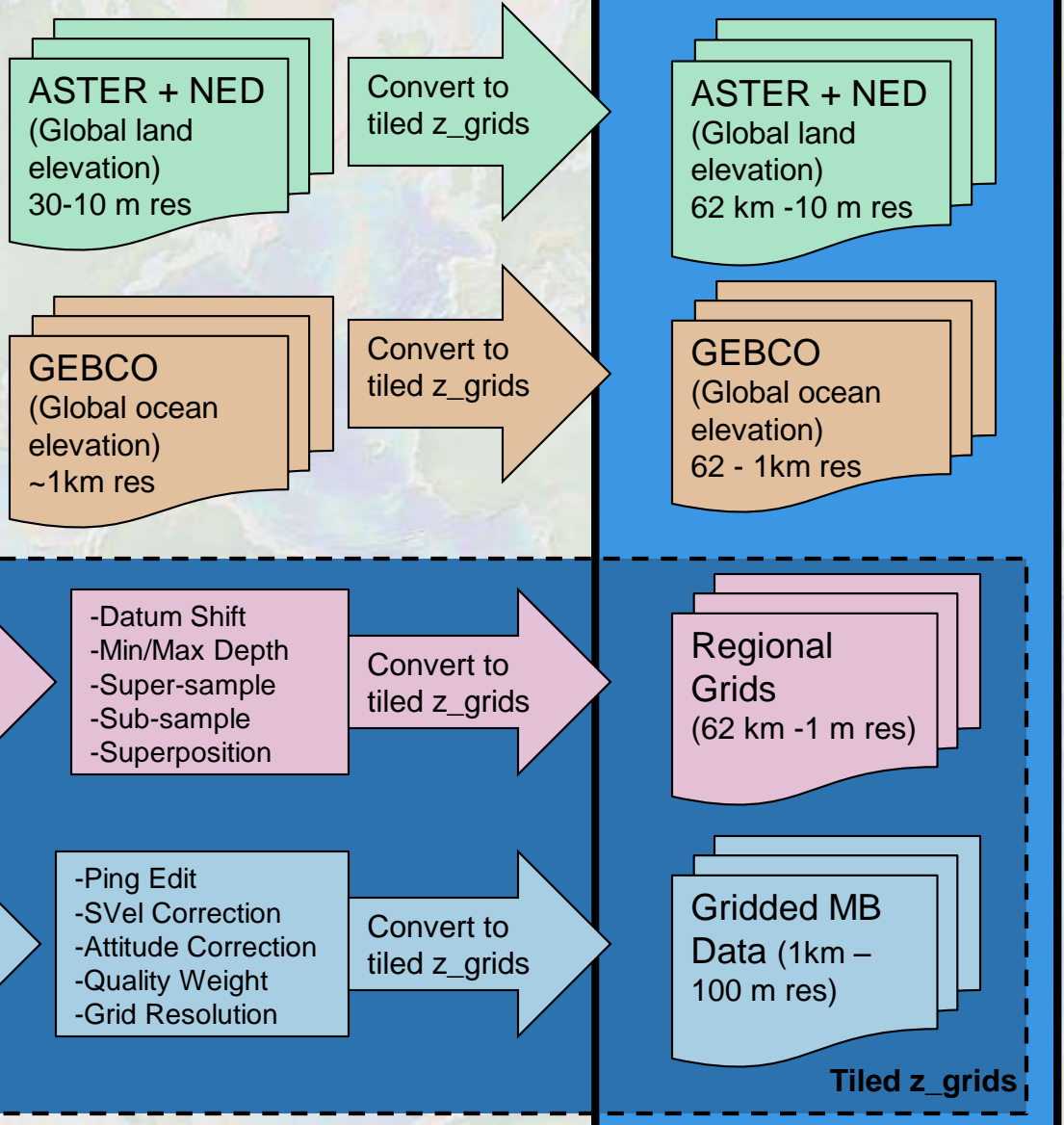


*\*LDEO team performs QC of ping files*



# GMRT GridComposer

- Merges Grid Components
  - Customizable Input \*
  - Output: *gdal-compliant*\*
- On-the-fly grid composition
  - GeoMapApp
  - GMRT Map Tool
  - GMRT Grid Service
- Pre-composes image tiles \*
- Pre-compose grid tiles \*
  - GMA format (*z\_grids*)



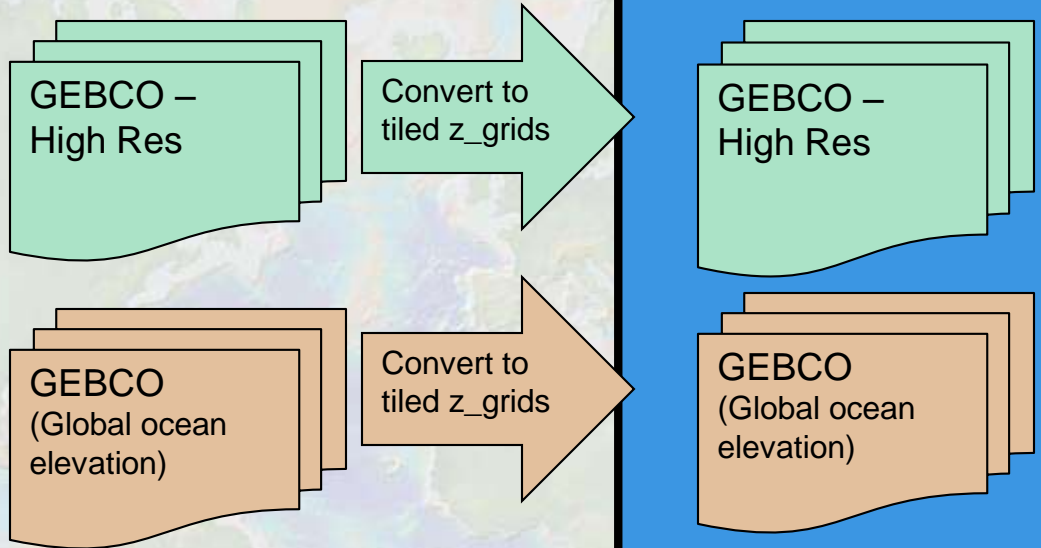
Data QA/QC by  
GMRT Team



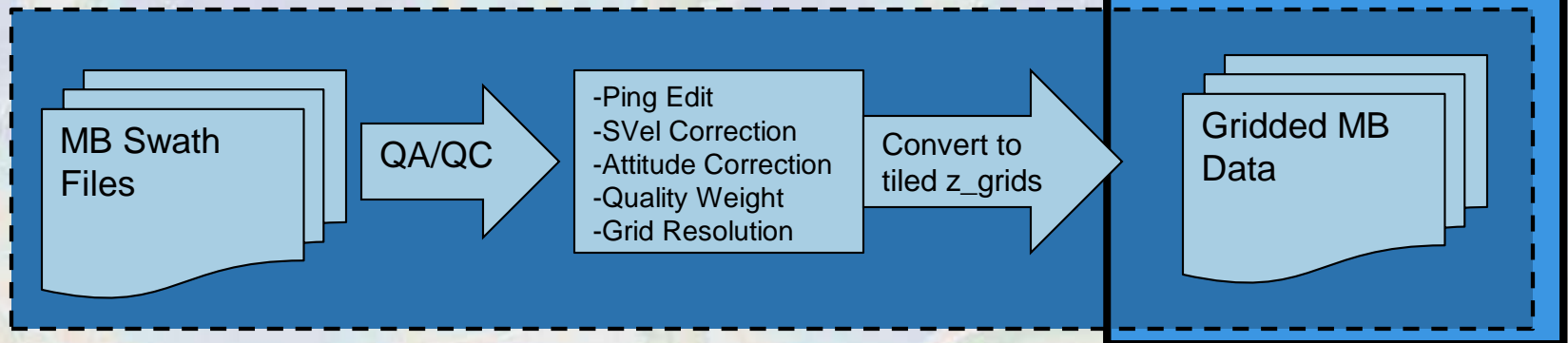
# GMRT GridComposer – GEBCO High Res

- Sparse Superset grid ?
- On-the-fly Grid composer ?
- Pre-composes images ?
- Pre-compose grids ?

??



Data QA/QC by  
GMRT Team



# GEBCO-HiRes - Discussion & Next Steps

- Define desired products & format
  - Grids
    - Tiled gridset (multi-resolution)
    - Pre-computed SuperGrid
    - Format ?
  - Images
    - WMS?
  - Interface
    - GEBCO MapTool ?
    - Background ?
      - GEBCO WMS
  - Attribution
    - Trackline/Grid
    - Attribution service
- Develop Workflow
  - Integration with Data Store
  - Vetting/Editorial Process

