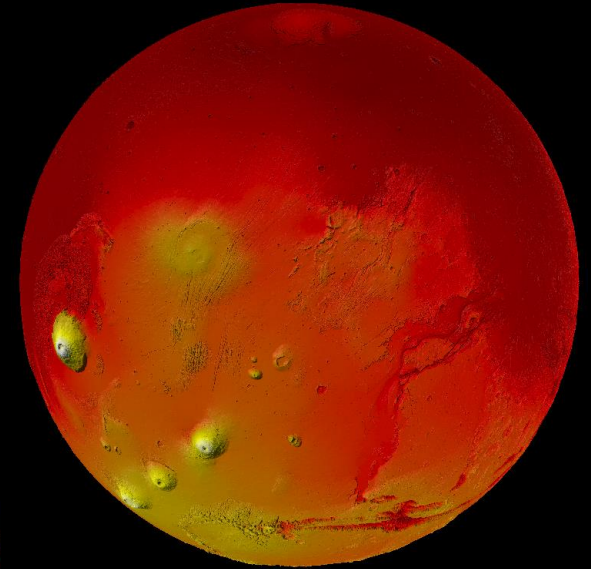
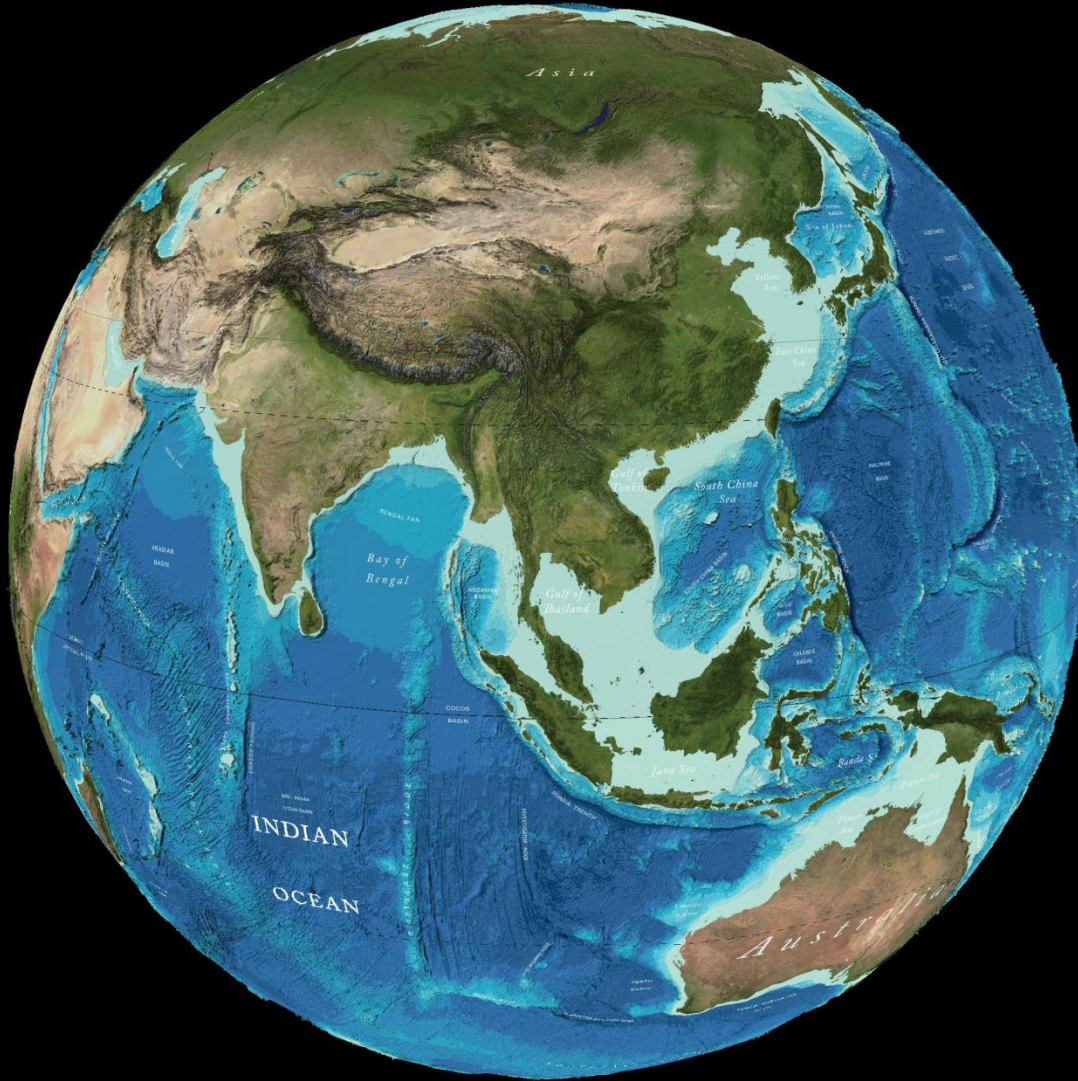


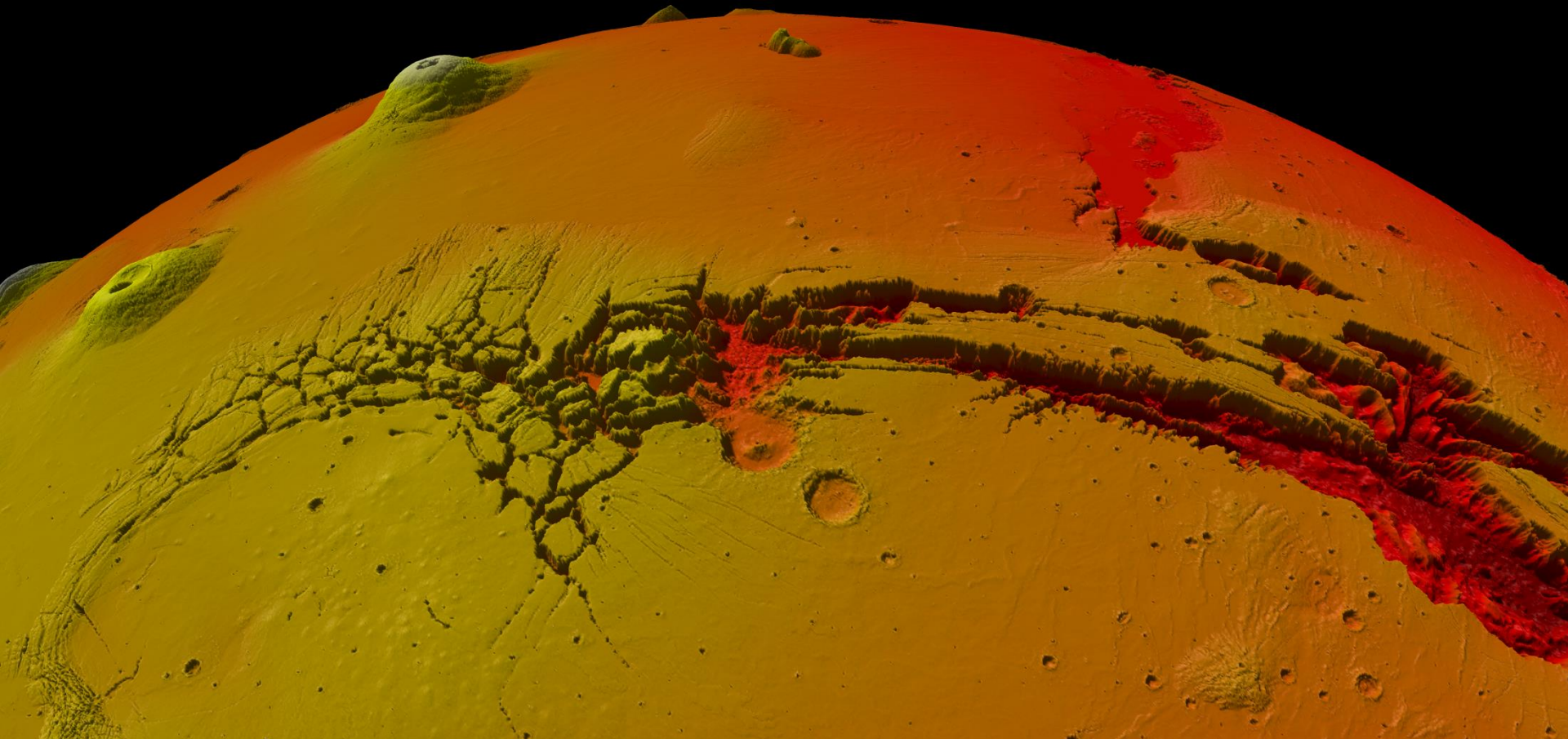


# See the Seafloor 2030

*How close can we get to Mars by 2030?*



# How do our knowledge about the shape of the World oceans floor reach this level of detail?



Mars was mapped already in 1998 and 1999 by NASA's Mars Orbiter Laser Altimeter (MOLA). From Mars Express High-Resolution Stereo Camera (HRSC) images, DTMs of 50x50 m resolution are produced and ortho-images with 12.5 m resolution (*Gwinner, et al., EPSL, 2010*)

# **GEBCO 2030 Mapping Program**

Goal:

*Map 100 % of the World Ocean Bathymetry by 2030*

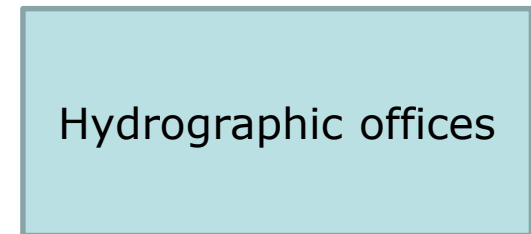
- To what resolution is this achievable?
- Do we have the technology?
- Do we have the human capacity?
- What program structure is required?
- Are there more parameters than seafloor depth that can be included in such a program? (seafloor sediments, habitats?)

# GEBCO 2030 Mapping Program



- **A program built on human capacity**
  - 1: Six programmers/data regional bathymetric compilers
  - 2: Six regional networkers
  - 3: One central GEBCO compiler.
- **A program built on six regional mapping compilation centers**
  - 1: Atlantic Ocean
  - 2: Arctic Ocean
  - 3: Indian Ocean
  - 4: Pacific Ocean
  - 5: Southern Ocean
  - 6: Mediterranean Sea
- **GEBCO Central Hub**

GEBCO, assembling of regional compilations, version control, web



Regional mapping compilation centers

Atlantic  
Ocean

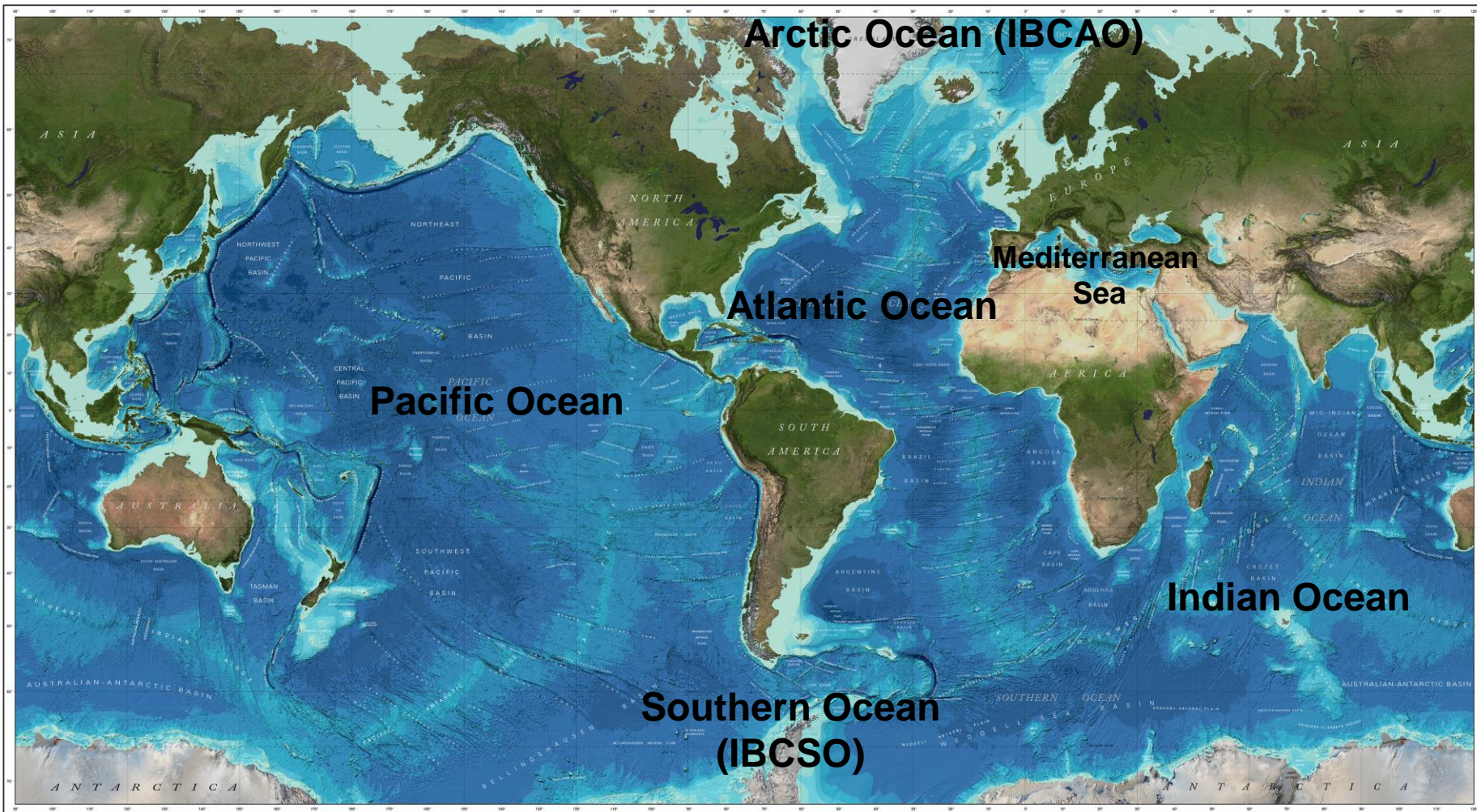
Arctic  
Ocean

Indian  
Ocean

Pacific  
Ocean

Southern  
Ocean

Mediterra  
nean Sea



2014-00

**GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO)  
WORLD OCEAN BATHYMETRY**



**BACKGROUND**

The GEBCO is a collaborative effort of agencies in various countries and is the result of a long-term international effort to collect and disseminate bathymetric data. The GEBCO is the result of the International Geophysical Year (IGY) in 1958, the United Nations Conference on the Law of the Sea (UNCLOS) in 1982, and the International Hydrographic Conference (IHC) in 1993.

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**JOINT IHO-IOC QUANTUM COMMITTEE FOR GEBCO DATA**

The Arctic Ocean (IBCAO) is a sub-basin of the Arctic Ocean. It is located in the northern part of the Arctic Ocean and is bounded by the Eurasian and North American continents. The Arctic Ocean (IBCAO) is a sub-basin of the Arctic Ocean. It is located in the northern part of the Arctic Ocean and is bounded by the Eurasian and North American continents.

Mercator Projection - Scale 1:35 000 000 at the Equator  
Depths in corrected meters



**MAP PROJECTION**

The chart is plotted on a Mercator projection of the Earth's surface. The chart is plotted on a Mercator projection of the Earth's surface. The chart is plotted on a Mercator projection of the Earth's surface.

**REFERENCES**

The chart is based on the following references: The chart is based on the following references: The chart is based on the following references.

