



Existing, Developing, Emerging, and Highly Likely Future Components of IOC Work and Expectations for WCRP

**Regular
Mandate**

Decade

**Biodiversity Beyond
National Jurisdiction**

Climate Change

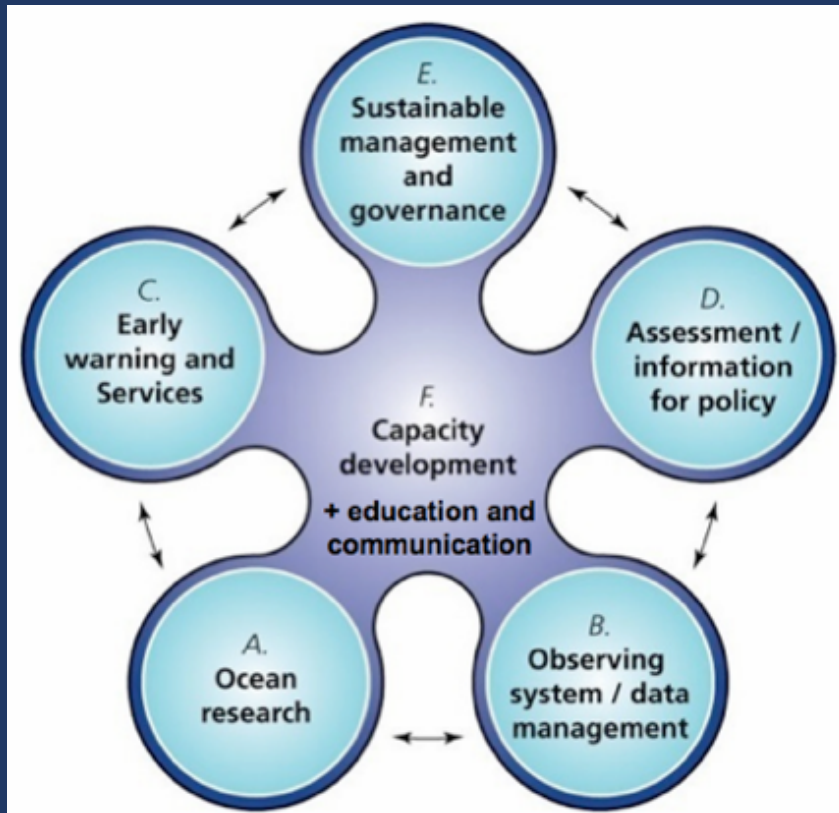


**Dr Vladimir Ryabinin
Executive Secretary
IOC of UNESCO**

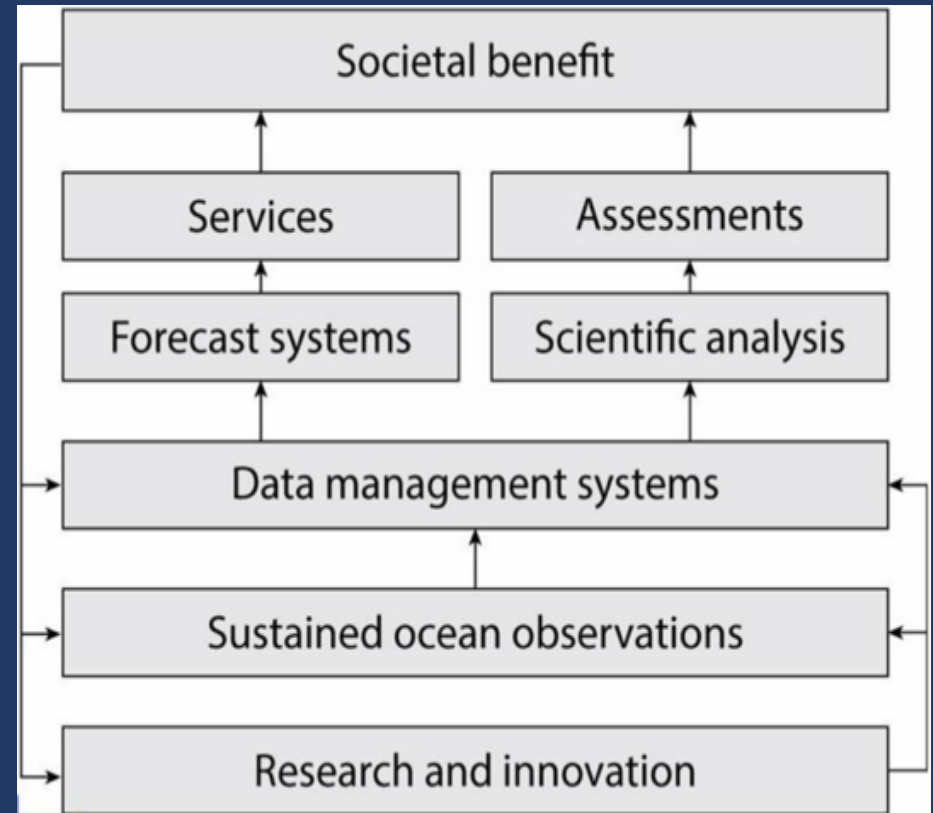


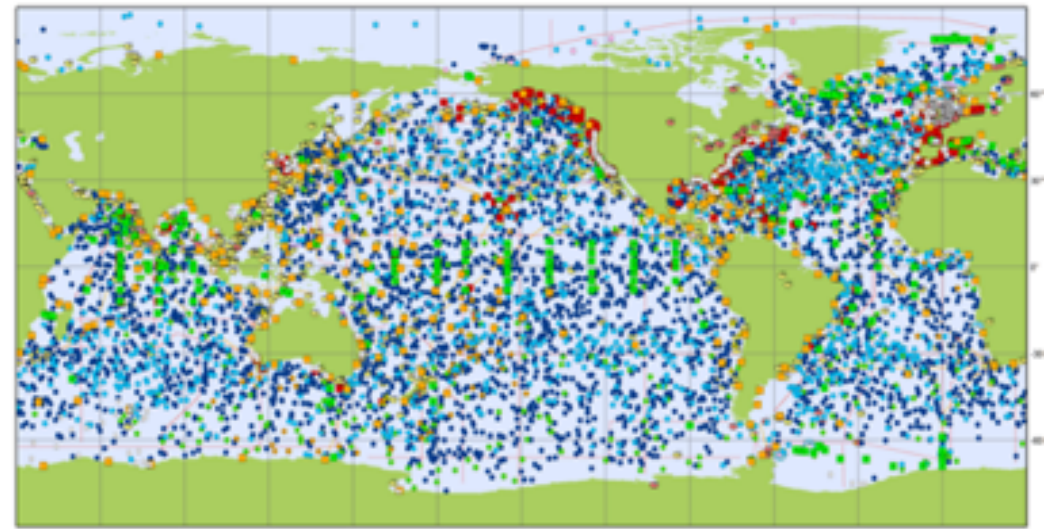
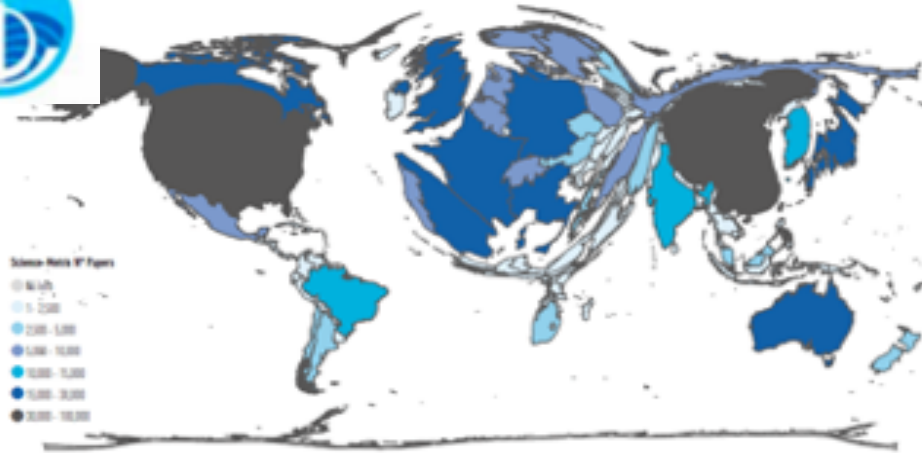


IOC Functions



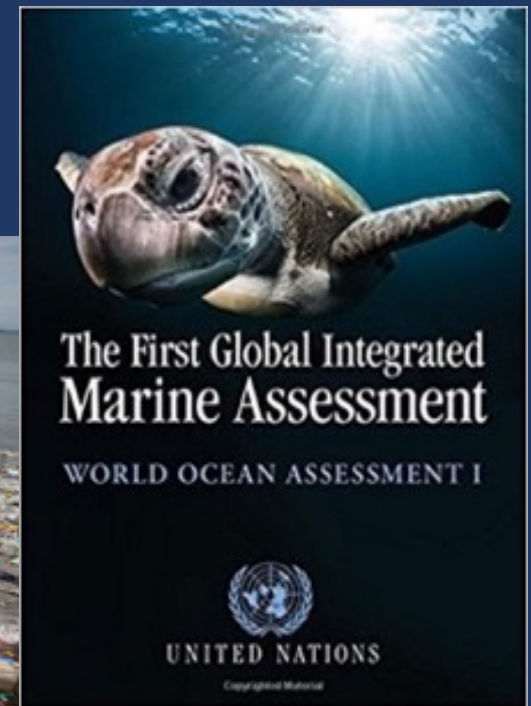
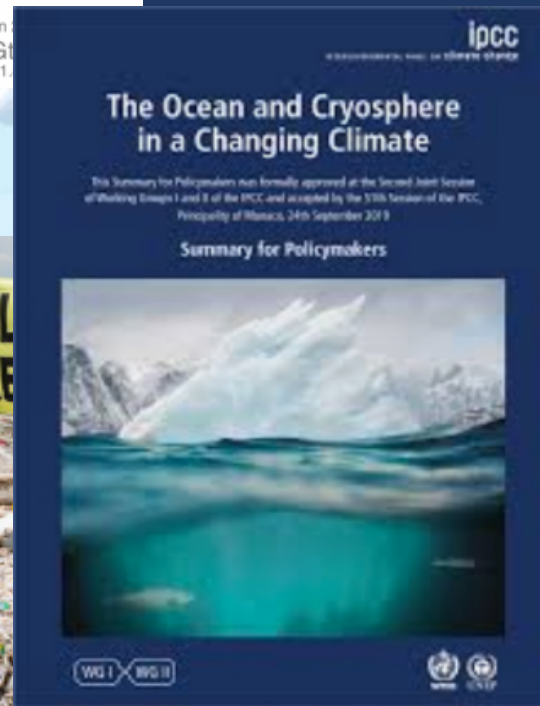
Value Chain of Oceanography

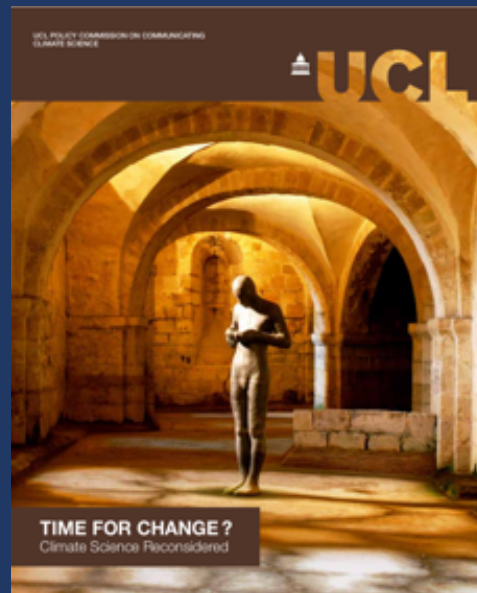
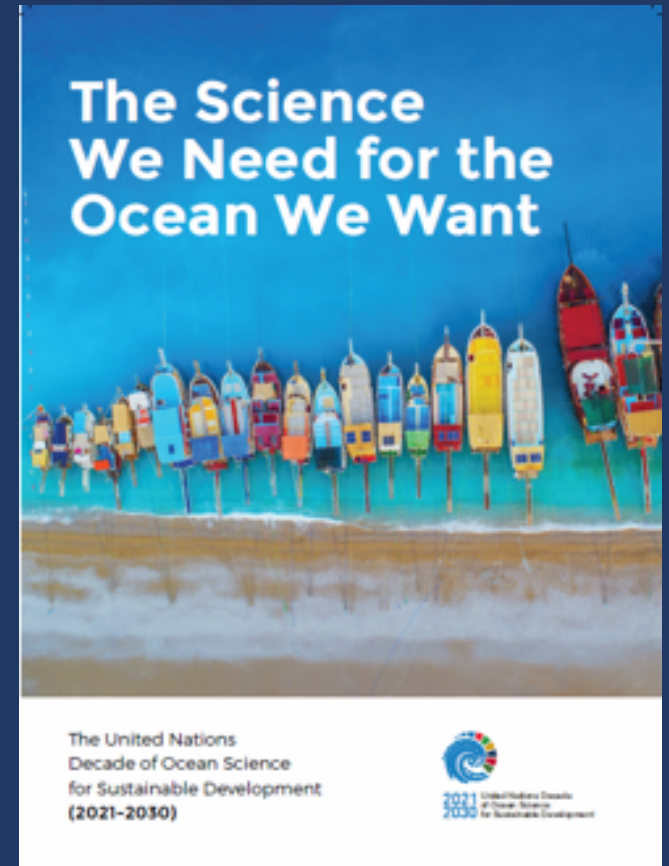






The Pew Charitable Tr...





- Ocean Science competent for problem diagnostic

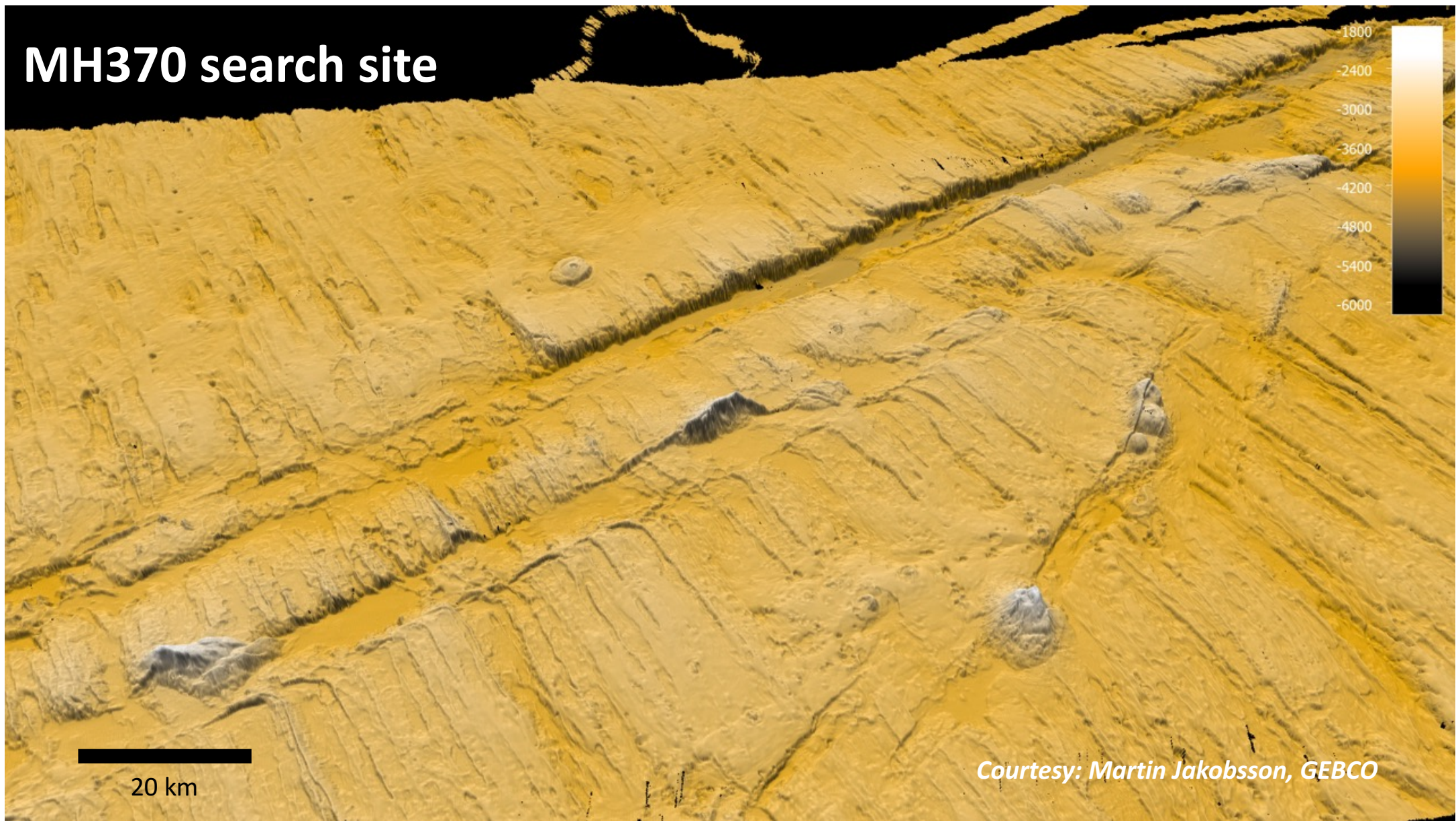
- Science providing solutions and motivation for action



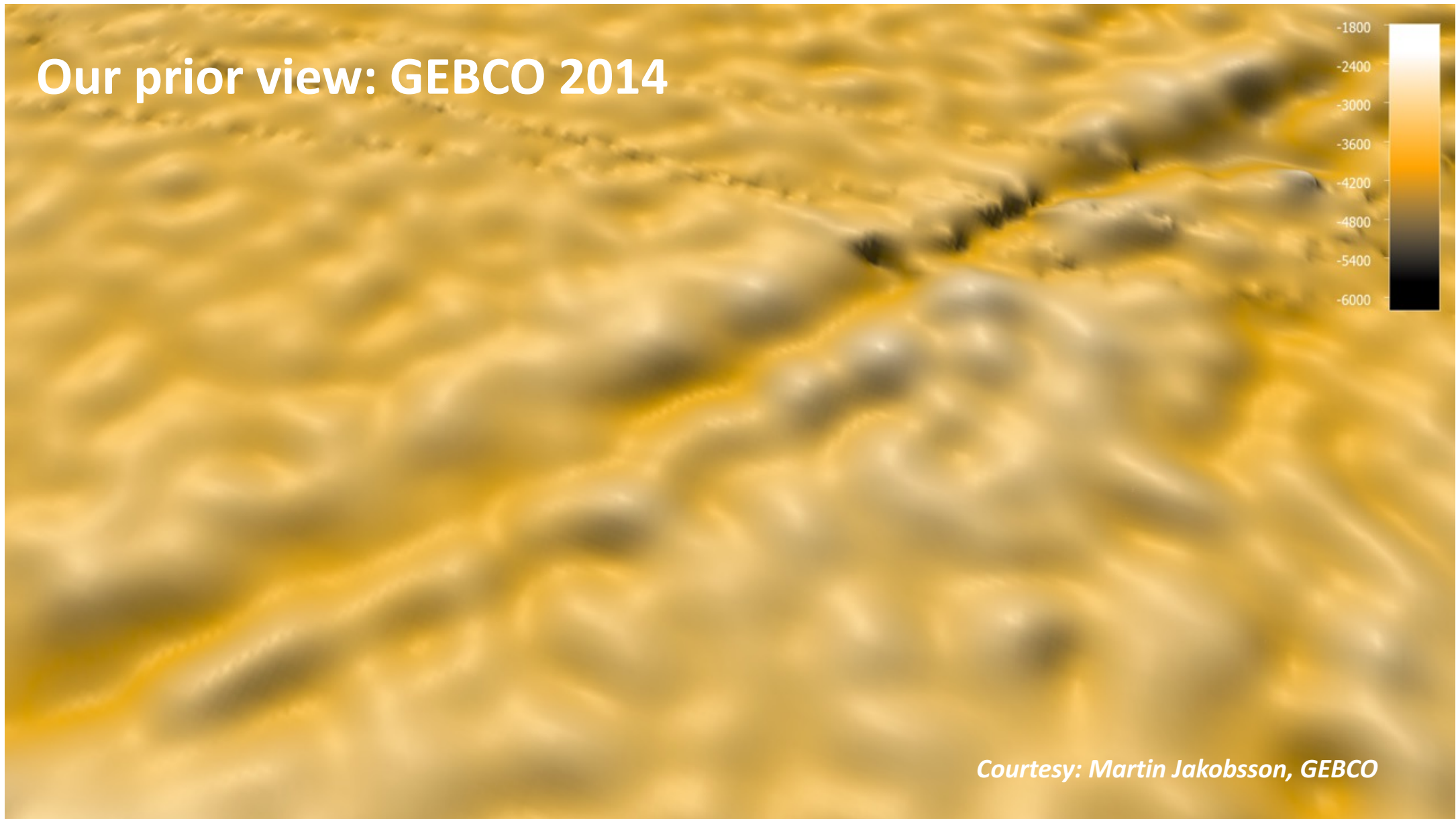
The Ocean Frontiers! No, Mars

Courtesy: Martin Jakobsson, GEBCO

MH370 search site



Our prior view: GEBCO 2014



Courtesy: Martin Jakobsson, GEBCO



Ocean Science for Sustainable Development



Science breakthroughs

Solutions + Motivation

Missions
Projects

Resources + Requirements

Managed Ocean

- Mapping, digital atlas
- Observing system
- Ecosystem knowledge
- Data and information
- Multi-hazard warning systems
- Ocean in Earth System science
- CD, education, ocean literacy
- Mitigation of Climate Change?



Coastal zone management



Marine Spatial Planning/
Blue economy



Aquaculture /
Fishery management



Disaster Risk Reduction
(Re-)insurance



Adaptation
Mitigation
Climate services



Governance:
Policies
Peace
Security



2021
2030

United Nations Decade
of Ocean Science
for Sustainable Development