

Why Observe the Deep Ocean?

The deep sea below 200 m is a key component of Earth System Dynamics.

We must understand changes in the deep ocean to project and model climate change.

The deep ocean is taking up heat and CO₂, & losing oxygen, with altered physics.

Human drivers are encroaching on deep ecosystems: *Climate *Fishing *Oil and Gas *Minerals Mining *Bioprospecting *Waste Disposal *Geoengineering

OBJECTIVES

Develop a common statement of requirements and an initial strategy for sustained global deep ocean observations; considering all Essential Ocean Variables, regions, technologies, and societal imperatives so as to extract high priority, feasibility, and GOOS fit-for-purpose actions for the next 5-10 years.

ACTIVITIES

- **Prepare a consultative draft** explaining the need for a coherent deep observing system
- **Identify key scientific questions** requiring deep observations
- **Conduct a global inventory** of deep ocean observations
- **Review and prioritize** essential ocean variables in deep waters
- **Review geographic coverage** and types of measurements; identify new observing needs
- **Integrate, promote, and facilitate** deep ocean observations
- **Evaluate requirements** for delivery of data and derived products and information; evaluate the existing data systems for fitness for purpose

GET INVOLVED: We are seeking input from a variety of deep ocean stakeholders including scientific and technical professionals in the deep ocean observing community with expertise in research and development, scientific analysis, operations and maintenance, and data management.