



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

Deep Ocean Observing Strategy (DOOS) Decade Programme

© Schmidt Ocean Institute, Biodiverse Borderlands Expedition, Lisa Levin Chief Scientist

Lead Institution

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KEY PARTNERS

- Global Ocean Observing System (GOOS)
- All Atlantic Ocean Observing System (AtlantOS)
- Challenger 150
- World Climate Research Program (WCRP) Climate and Ocean: Variability, Predictability and Change (CLIVAR)
- Seabed 2030

And many more! Please see website

DECADE CHALLENGES ADDRESSED

CHALLENGE 2: Protect and restore ecosystems and biodiversity

CHALLENGE 5: Unlock ocean-based solutions to climate change

CHALLENGE 7: Expand the Global Ocean Observing System

CHALLENGE 9: Skills, knowledge and technology for all

OCEAN BASINS

North Atlantic
South Atlantic
North Pacific
South Pacific

Indian
Arctic
Southern



@DeepOceanObs

@GOOSOcean

#DeepOcean

Summary

The Deep Ocean Observing Strategy (DOOS) will promote a deep ocean community that facilitates collaboration across disciplines and fields, elevates a diverse cohort of early career researchers into future leaders, and bridges scientific advancements to societal needs and challenges. DOOS represents an interconnected network of deep-ocean observing, mapping, exploration and modelling programs working together to: 1) characterize the physics, biogeochemistry and biology of the deep ocean in space and time, 2) establish a baseline required to understand changes to its habitats and services and 3) provide the information needed to have a healthy, predicted, resilient and sustainably-managed (deep) ocean. DOOS will promote human capital and observing infrastructure needed to address critical scientific and management questions relating to climate, biodiversity and sustainability, while growing the next generation of deep-ocean leaders. DOOS seeks to generate a cross-disciplinary network of networks for global deep-ocean observing.

Duration: 01/01/2021 - 12/31/2030

Priority Activities (first two years)

- Join modelers, data generators, data managers and data users in a workshop focused on integrated setting of requirements for deep observing over the coming decade.
- Create the Deep Ocean Early Career Researchers group (DOERS) with emphasis on diversity, inclusion and building global deep-sea capacity.
- Develop a demonstration project in collaboration with AtlantOS of smart, integrated, deep-sea observing instrumentation capable of multi-disciplinary sensing technology that is scalable to operate as a globally distributed network.
- Facilitate FAIR data through promoting and training on best practices and interoperability approaches for deep-ocean data.
- Develop a framework and policy liaison group for international coordination and collaboration among deep-ocean stakeholders, regulators and policy makers to promote science-guided decision making (via iDOOS).

"The deep ocean represents a critical frontier in ocean observing with potential for high impact in scientific discovery and societal solutions. The Deep Ocean Observing Strategy (DOOS) joins communities of observers with data users to gain and utilize knowledge of deep-ocean ecosystems to address global environmental challenges."

DOOS leadership

