

Building a globally integrated network of networks to observe the deep ocean effectively in support of science, policy, and planning for sustainable oceans.

Leslie Smith, PhD DOOS Project Director



United Nations Decade
of Ocean Science
for Sustainable Development

www.deepoceanobserving.org

What is DOOS

An **international, community-based group** focused on developing a roadmap that will lead to an improved understanding of the state of the global deep ocean with respect to baseline conditions, response to climate change and response to human disturbance.



The Global Ocean Observing System

DOOS is a GOOS project envisioning a globally integrated network of systems that observes the deep ocean (> 200 m, with emphasis > 2000 m) in support of science, policy and planning for sustainable oceans.



2021 United Nations Decade of Ocean Science for Sustainable Development

UN Ocean Decade Endorsed Programme: DOOS will

promote the human capital and observing infrastructure needed to address critical scientific and management questions related to the climate, biodiversity and sustainability, while growing a diverse and inclusive next generation of deep-ocean leaders.

Who is DOOS

Implementing a Deep Ocean Observing Strategy (iDOOS)

within the Global Ocean Observing System (GOOS)

Observing & Data & Modelling Management **Exploration Networks** & Policy Users **CI** Networks Argo (Core, BGC, Deep) CCHDO AtlantOS Challenger 150 (DOSI/SCOR) **CLIVAR GSOP** DOSI EMSO **GEO-BluePlanet** CLIVAR/OMDP & CMIP GEO BON **ECCO** GOOS **GO-SHIP EMODnet** Internat. CLIVAR iAtlantic ESIP/MDC MBON InterRidae NDSF/UNOLS Esri ISA **NOAA** Ocean Exploration **FathomNet IUCN** OceanSITES **IODE/ODIS** POGO OECI IRIS **UN Decade** ONC **ISA** DeepData **UN Global Compact** 001 U.S. CLIVAR Mercator Ocean **REV** Ocean Schmidt Ocean Institute OBIS U.S. OCB **JTF SMART Cables OBPS U.S.** Sanctuaries SOOS/SOCCOM OceanPredict & Monuments **TPOS 2020** Seabed 2030 US-IOOS

An interconnected network of deep-ocean observing, mapping, exploration, and modelling programs with a diverse set of stakeholders



How DOOS Works







Working Groups

- Theme 1: Requirement Setting
- Essential (deep) Ocean Variables
- Coordination with Modelling Community
- Develop and Promote Best Practices
- **Theme 2: Implementation**
- Create roadmaps for observers to contribute globally
- Technology Readiness Levels
- Demonstration Projects (e.g., Azores)
- Theme 3: Translating Science
- Raise awareness among policy-makers
- Creation of briefs and other outreach materials
- Represent DOOS in UN Decade activities

Cross-Cutting Themes

ECRs/DOERs

Data/Informatics

- Working Group Support
- Early Career Researcher Trainings
- Hackathon



Observing Community





Deep Ocean Early-career Researchers

GOAL: Foster the next generation of leaders in deep ocean observing

- Collaborative early career mentoring program
- Diverse, inclusive, cross-disciplinary, international cohort of 50-60 ECRs
- 4y program with quarterly (2-hr) virtual professional development events
 - Y1: Leading international, interdisciplinary projects
 - Y2: FAIR data principles training
 - Y3: Create a DOOS Demonstration Project
 - Y4: Communicating science to diverse audiences
- Networking opportunities across iDOOS
- Integration into iDOOS working groups and elevation to leadership roles
- Honoraria and travel funding available for some representatives from developing countries

The program kicks off this fall!!

leslie.smith@youroceanconsulting.com

