



The Global Ocean Observing System

Projects updates and asks

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IOC/GOOS

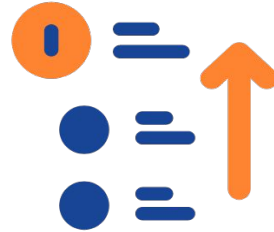
GOOS Projects

1. AtlantOS
2. Deep Ocean Observing Strategy (DOOS)
3. Ocean Best Practices
4. Tropical Pacific Observing System (TPOS)
5. Integrated Marine Debris Observing System (IMDOS)
6. SmartCables



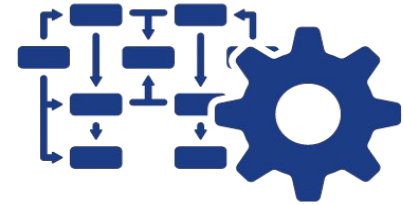
Not enough ocean information

to effectively meet global challenges



Need to establish clear priorities

in investment in ocean observing



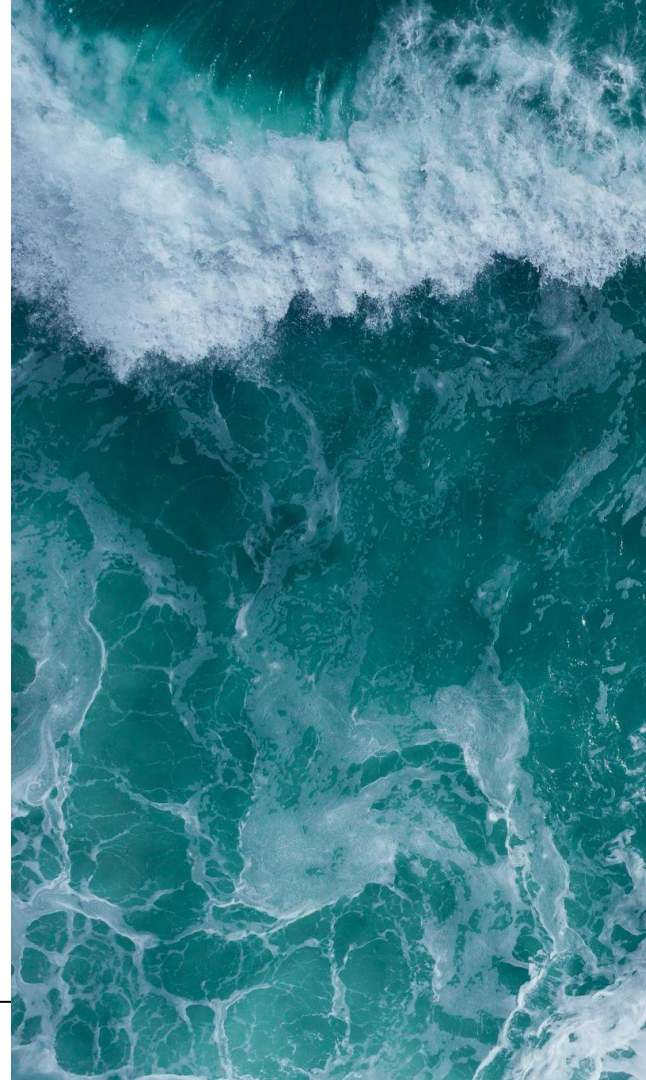
Connecting across the value chain

of observing, modeling and user engagement

Need a step change...

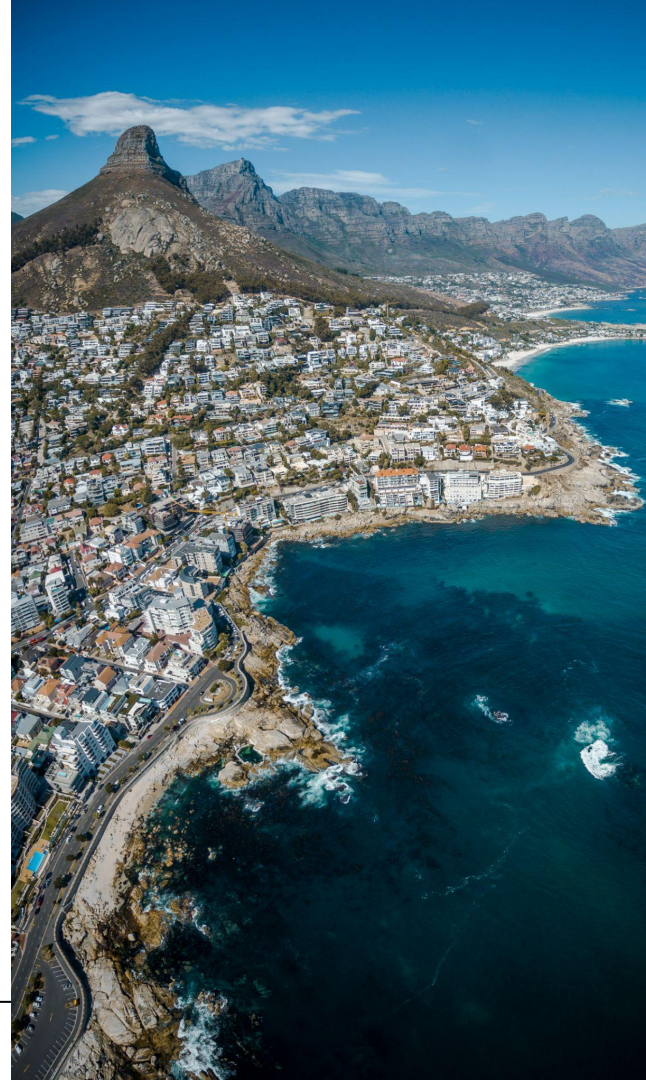
— RECENT DEVELOPMENTS

- **Endorsement** by the Global Ocean Observing System and Geo Blue Planet;
- Produce **AtlantOS Ocean Hours** to provide community engagement;
- Revised the AtlantOS **Governance**;
- Endorsed UN Decade Project “**AtlantOS Connect**”;
- Start of **Consultation process** - e.g., barriers, user needs;



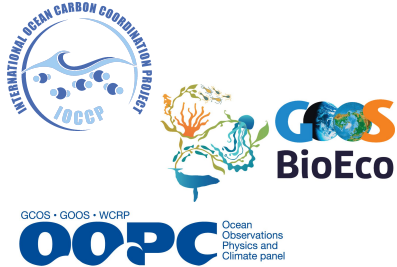
— NEXT STEPS

- Finalize means to engage with **AAORIA** and existing Atlantic ocean efforts;
- Work closely with the Ocean Decade Programmes **Ocean Observing Co-Design** and **Observing Together**;
- Continue AtlantOS **Ocean Hours** to provide community engagement;
- Stakeholder **Workshop** in Summer 2024



iDOOS Working Groups

Essential Ocean Variables



Accessible Ocean Technology



Assessing Observational Gaps for Understanding Climate Change



Habitat Mapping for Place-Based Management



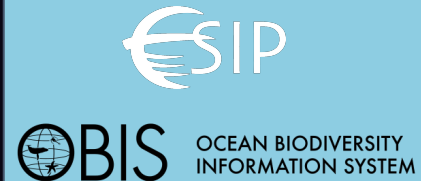
Science to Policy



Integrating Modeling and Observing



SeaFAIRers



Accessible Ocean Technology

- Leading network coordination to synergize efforts
- Creating standards and goal-driven timelines across stakeholders to rapidly expand accessible ocean tech.
- Producing synthesis reports to assess gaps and prioritize technology maturation to observe EOVs.
- Co-Creating an online community hub to connect accessible providers and users.



13 March 2024

Oceanology International
London, UK

2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

EOOS | Technology Forum 2024

**CATCHING THE MOMENTUM IN OCEAN OBSERVING TECHNOLOGY:
OPTIMISING VALUE AND DATA PROVISION**

EuroGOOS
European Global Ocean
Observing System

JERICO₅₃
EUROPEAN JOINT RESEARCH
INFRASTRUCTURE FACILITY

Ifremer

OGS
National Institute of Oceanography
and Applied Geophysics

SMHI

iDOOS



Technologies in Sustainable Ocean Observations

📍 World Trade Center, Room 9+10, Barcelona

📅 9 April 2024 | 12:00 - 14:00 CET

Many technology challenges exist when it comes to observing and monitoring the ocean. Dismantling these barriers and identifying opportunities towards achieving a mature and vibrant Ocean Observing Enterprise for all is the focus of this event.

This side event will allow for an opportunity to interact, foster connections and discuss cross collaborative efforts.

PRESENTATION

Lucie Cocquempot [JERICO, Ifremer]
Ann-Christine Zinkann [UCAR/NOAA]

EXPERT PANEL

Patrick Gorringe [SMHI]
Jess Sandoval [Deep Ocean Observing Strategy, AquaVela]
Patricia López-García [National Oceanography Centre]
Thanos Gkrizalis [Flanders Marine Institute]
Peer Fietzek [Kongsberg Discovery]
Emma Heslop [GOOS]

MODERATOR

Brendal Townsend [MTS]

For questions please contact Ann-Christine Zinkann [ann-christine.zinkann@noaa.gov]

Register [here](#)



Partners:



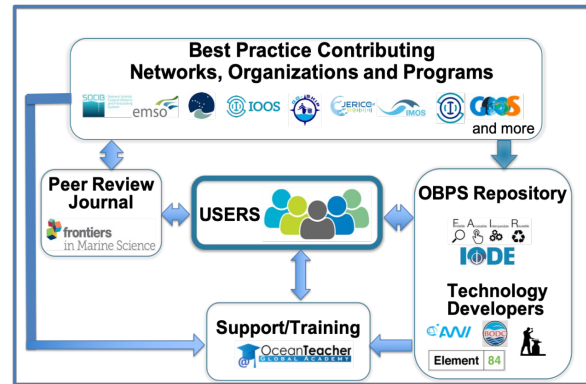
What is the IOC-Ocean Best Practices System (IOC-OBPS)?

International project supported by IOC, co-sponsored by IODE and GOOS

Our Vision: To have agreed and broadly adopted methods across ocean research, operations and applications.

Original Capacities

- Repository
- Journal – Frontiers in
- Training
- User Support



Expanded Capacities

- Task teams
- Early Career Ocean Practitioner (ECOP) Ambassadors
- International annual workshop
- OceanPractices – a UN Decade of Ocean Sciences for SD Program

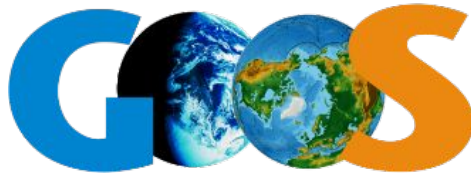


OBPS Roadmap

A global, sustained and trusted hub of ocean know-how

- Expand work with developing nations, remote regions and Indigenous Peoples (e.g. in Africa, Arctic, South Pacific)
- Motivate and focus a global conversation around practices
- Encourage organizations to endorse what “is best” for them
- Harmonize metadata and structures (FAIR BP)
- Promote federated network of methodological management systems
- Synergize best practices and standards

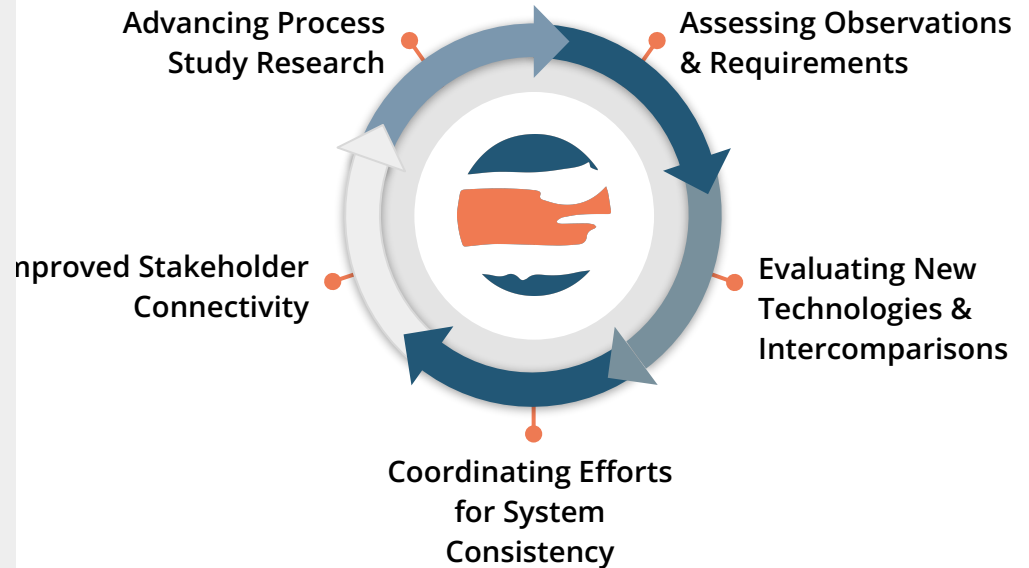
GOOS SC 2024 OBPS Questions



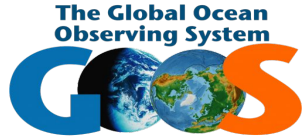
1. How do you see an OBPS permanent position within the GOOS infrastructure?
2. How can GOOS support best practices and standards advocacy?

Current Status: TPOS Implementation

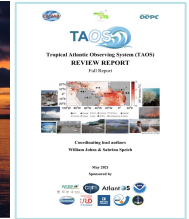
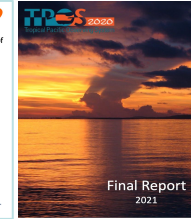
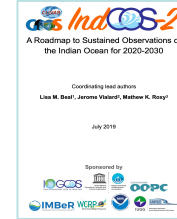
- Updated **TPOS governance**
 - Scientific Advisory Committee
 - Implementation Coordination Group
- Priority recommendations are being addressed and/or in planning:
 - **Recapitalizing TAO** array
 - Deploying more **Argo** floats
 - Joint ECMWF-JMA-NOAA **observing system experiments**
 - Process study: **TPOS Equatorial Pacific EXperiment** (TEPEX)
 - **Multi-institution instrument intercomparison**



TPOS Challenges



WORLD
METEOROLOGICAL
ORGANIZATION



TPOS Sustainability

Evolving from a project → ?
formally in the GOOS and/or
WMO landscape?

Establishing longevity &
sustainability mechanisms for
implementing and tracking
recommendations

Stakeholder Advocacy

Building and sustaining
advocacy for regional
investments with involvement
in design and implementation

Addressing the 'undone'
components of TPOS 2020

Pan-Tropic Connectivity

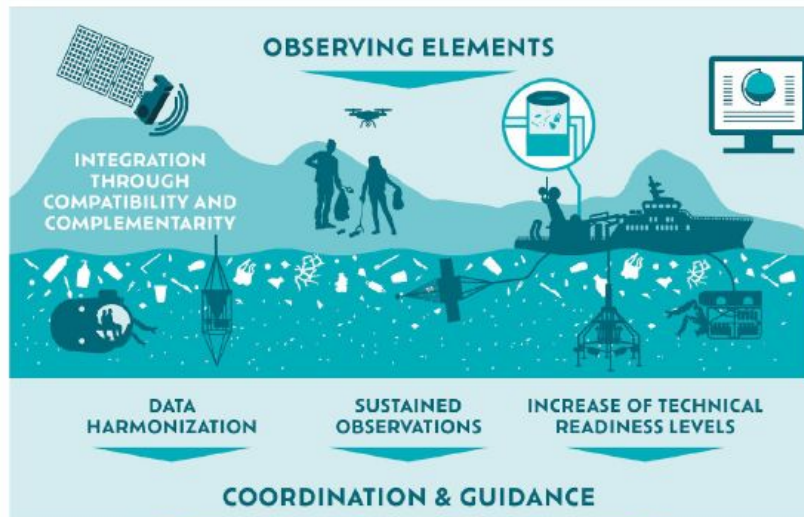
Addressing shared challenges
and identifying synergies to
strengthen connections within
& across the tropics

GOOS-led: leverage regional
efforts and identify
opportunities to build
engagement



SOCIETAL NEEDS FOR INFORMATION

OBSERVATIONS REQUIREMENTS



IMDOS
INTEGRATED MARINE DEBRIS OBSERVING SYSTEM

Vision

A globally coordinated and sustained observing system of marine debris addressing knowledge gaps and diverse stakeholder needs with adequate data and information.

FEDERATED & INTEROPERABLE DATA MANAGEMENT SYSTEMS

RESEARCH

DATA-BASED INFORMATION FOR SCIENCE & DECISION-MAKING

E.G. INDICATORS, POLICY BRIEFS, SCIENTIFIC PAPERS, ASSESSMENTS, TOOLS, ETC.

IMDOS Strategy Document
available from www.imdos.org

Take-home message

Successful implementation of the IMDOS vision globally depends on how well we coordinate regional observing efforts, in close collaboration with the GRAs where relevant.

Addressing marine litter pollution requires regional implementation of globally accepted strategies, methodologies and data management solutions.



Priorities

Short term (2+ years)

- Keep promoting synergies between science, industry governments and other related stakeholders
- Have SOOS and other GRA as allies to promote SMART cables in an organized way.
- Be officially an emerging network
- Be part of the GOOS Public

Long term (5+ years)

- Have 4 SMART cable systems around the world.
- Have synergies between telecom and science with the Antarctic, Arctic, Pacific Islands, Caribe and South East Pacific Communities
- Have a standardized process for SMART data

What support do you need from GOOS?

- We want the support of the GOOS structures and GRAs to facilitate coordination within and without.
- We want to have a clearly identified path from emerging network to becoming a mature network
- We want to have a detailed budget invested per OCG