



The Global Ocean Observing System



GOOS Steering Committee Introductory Meeting

28 August 2024
Virtual meeting

Meeting agenda

- Introductions (20 min.)
- Overview of GOOS and Q&A (30 min.)
- Nomination of names for SC Co-Chairs and process for election (10 min.)
- Setting in place upcoming meetings next steps (10 min.)

Introductions

GOOS Overview

Ocean observations: fundamental to society



No one country can observe the ocean effectively on its own.

GOOS: A critical infrastructure for ocean observing

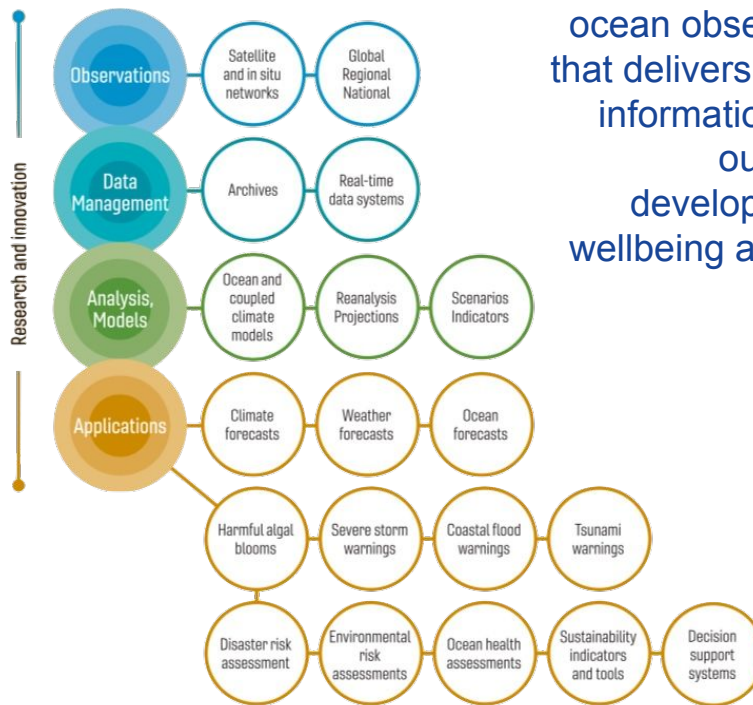


The Global Ocean Observing System

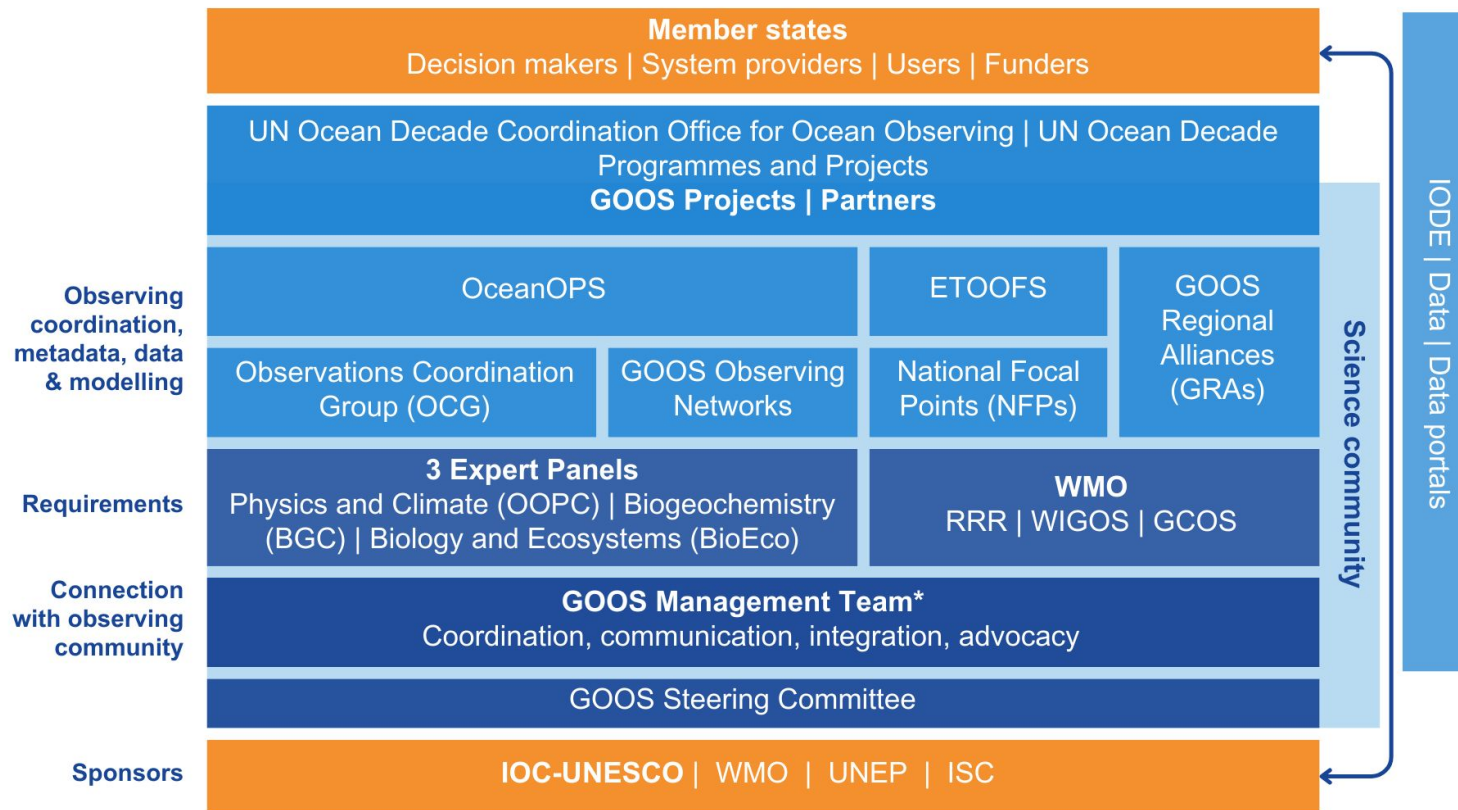
2030 Strategy

Underpinning a wide range of applications

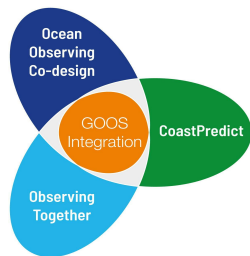
Vision: A truly global ocean observing system that delivers the essential information needed for our sustainable development, safety, wellbeing and prosperity



GOOS Structure

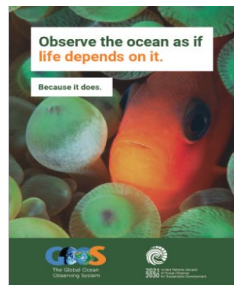


Work areas



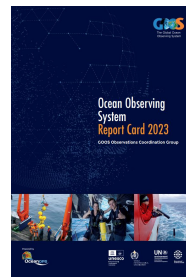
Expanding co-design of the system

3 Transformative Ocean Decade Programmes



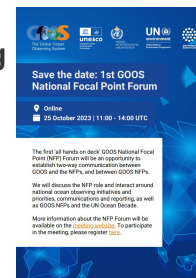
Enhancing UN Advocacy

UNFCCC, CBD, UN Ocean Conference



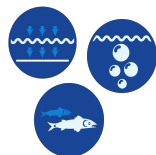
Communicating

GOOS Annual Report Card



Engaging Member States

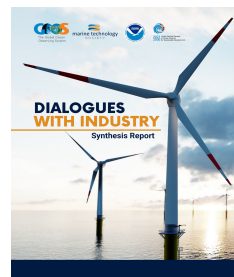
76 GOOS National Focal Points



Ocean best practices

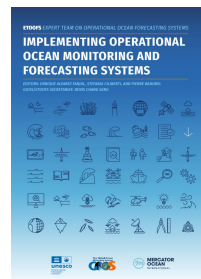
Strengthening structure & standards

36 Essential Ocean Variables & Best Practices



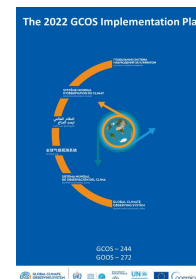
Working with private sector

Dialogues with Industry



Developing forecasting

Guide to Operational Ocean Forecasting Systems



Widening partnerships

Global Climate Observing Implementation (GCOS)

Operational delivery

- 84 countries, 8,400+ observing platforms
- More than 120,000 observations per day - operational systems
- 13 global networks + 3 emerging
- 12 BioEco EOVS communities

| Networks ¹ | Implementation | Data & metadata | | | Best practices ⁶ |
|--------------------------|---------------------|------------------------|------------------------------------|------------------------|-----------------------------|
| | STATUS ² | REAL TIME ³ | ARCHIVED DELAYED MODE ⁴ | META-DATA ⁵ | |
| Based meteorological | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| Based oceanographic | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| ated transects - HIP | ★★☆ | Not applicable | ★★☆ | ☆☆☆ | ★★☆ |
| Level gauges - GLOSS | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| Series sites - SITES | ★★☆ | Not applicable | ★★☆ | ★★☆ | ★★☆ |
| ed buoys - DBCP | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| mi buoys - DBCP | ★★☆ | ★★☆ | ★★☆ | ☆☆☆ | ★★☆ |
| ars | ★★☆ Emerging | ★★☆ | ☆☆☆ | ★★☆ | ★★☆ |
| g buoys - DBCP | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| ng floats - Argo | ★★☆ | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| & biogeochemistry - Argo | ★★☆ Emerging | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| Gliders | ★★☆ Emerging | ★★☆ | ★★☆ | ★★☆ | ★★☆ |
| l borne sensors - S | ★★☆ Emerging | ★★☆ | ★★☆ | ★★☆ | ★★☆ |



“The weather forecasting systems will run off the rails if they don’t have the surface pressure information over the ocean to constrain them” - Lars Peter Riishojgaard, Director of the Earth System Branch WMO

www.ocean-ops.org/reportcard2023

36 Essential Ocean Variables (EOVs)

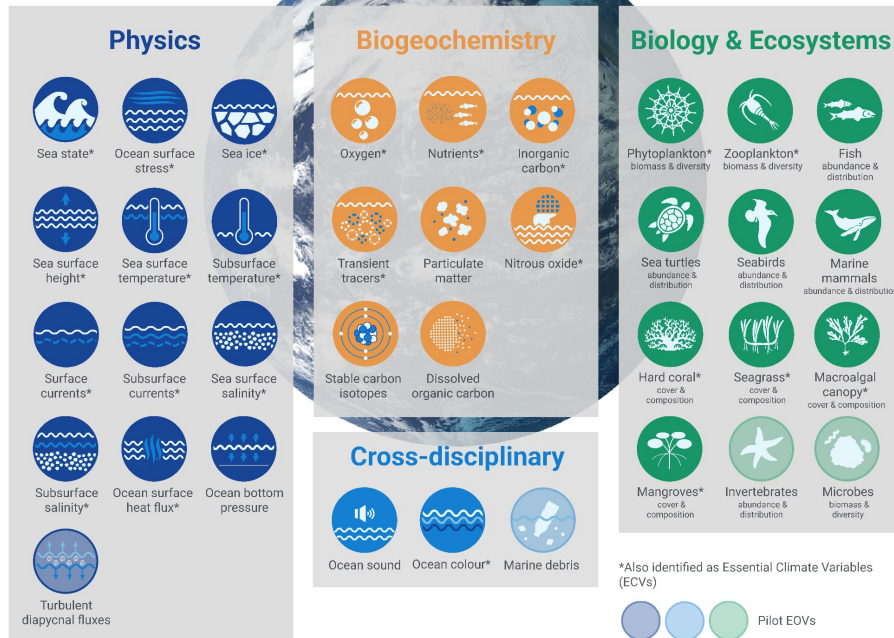
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030



United Nations
Climate Change



International Legally Binding Instrument on Plastic Pollution 2024



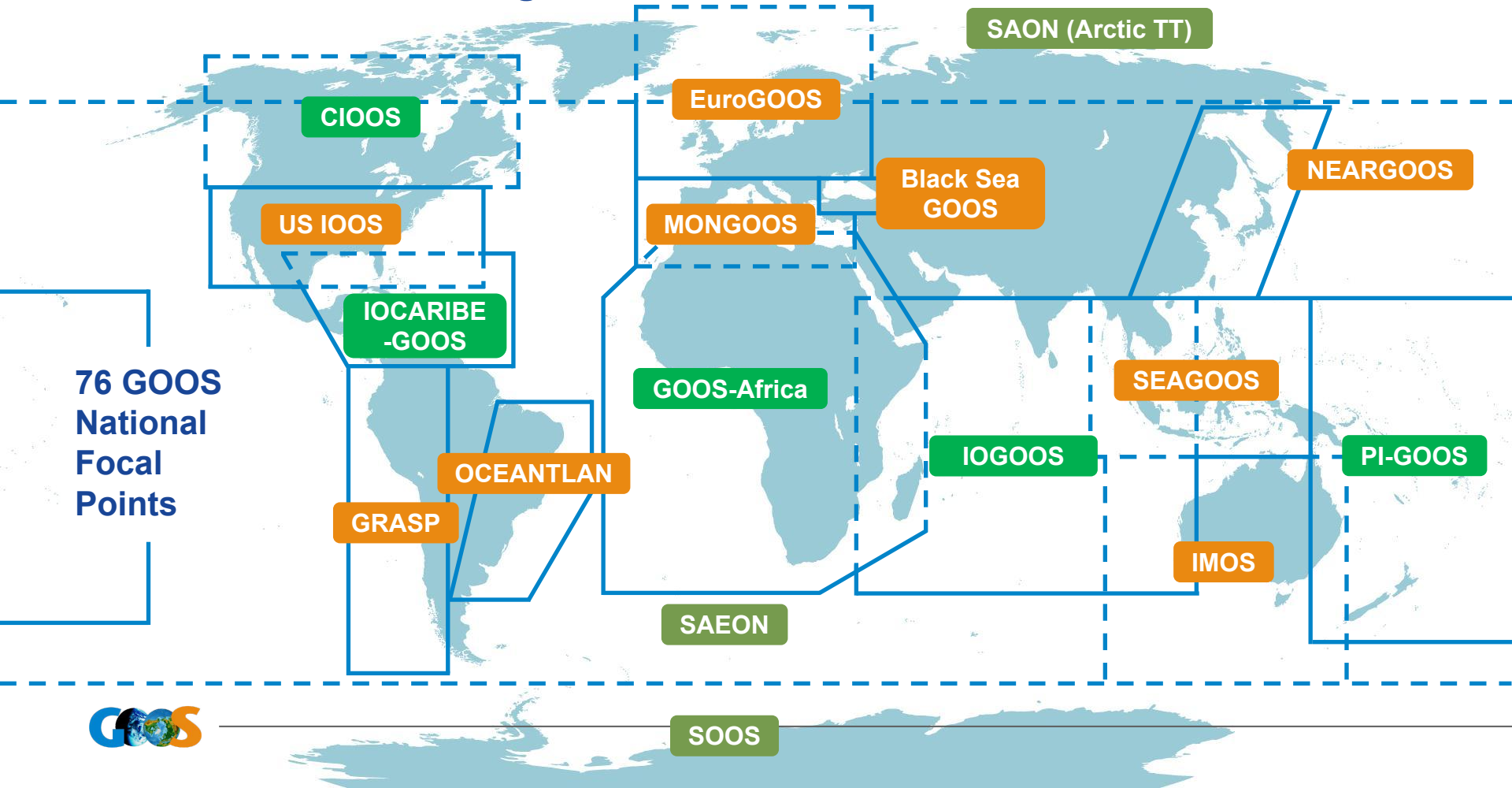
Post-2020 Biodiversity Framework



THE LAW OF THE SEA

+ Biodiversity Beyond National Jurisdiction

Regional & National Alliances





2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

Ocean Observing Co-Design

Co-Design observing-modeling-users
Establish clear investment priorities
Accessible ocean information
Effectively meet global challenges
6 Co-Design Exemplar Projects



Ocean Carbon Cycle



Tropical Cyclones



Marine Life



Marine Heatwaves



Boundary Current



Storm Surge

CoastPredict

GlobalCoast - implementation
125+ Pilot Sites
65+ countries
Multiple regions
Revolutionise global coastal
observing and forecasting



GOOS Decade Coordination Office: Ocean Observing

11 Ocean Decade Programmes
91 Projects
30% Ocean Decade Actions



Ocean Decade
Coordination
Office
**Ocean
Observing**

Ocean Decade Challenge 7

**Vision 2030
White Paper**



<https://oceanexpert.org/document/33599>

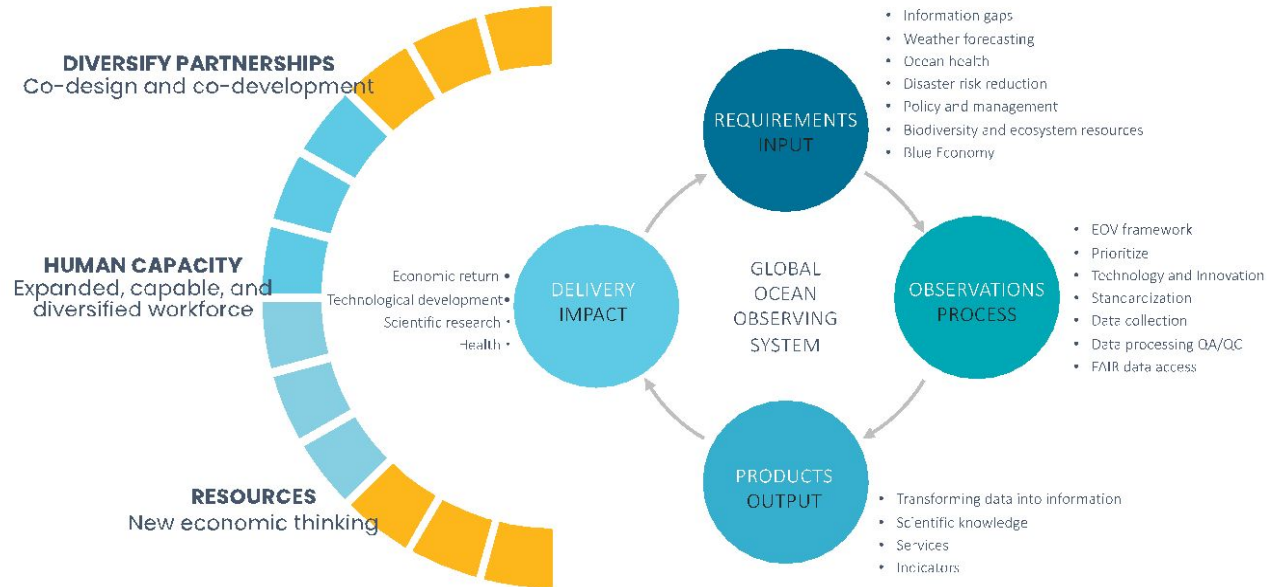
Vision 2030 White Paper



The United Nations
Decade of Ocean Science
for Sustainable Development
(2021-2030)



Expanding the Global Ocean Observing System

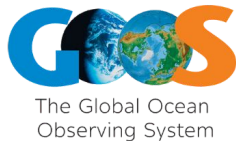


Recommendations include expanding global ocean observation capabilities, the translation of observations into information, fostering diversified partnerships, building a capable and diversified workforce, and emphasising a new economic thinking for resourcing ocean observing

A sustained and sustainable critical ocean observing infrastructure

From the coast to the open ocean – From the surface to the sea floor

national – regional – global



1. Co-designed ocean observing system for operational services, as well as research
2. FAIR data for the Essential Ocean Variables with clear standards, QA and QC
3. Equitable, federated global ocean digital ecosystem and data community
4. Global, regional and national coordination, integration and advocacy
5. Build new economic thinking, literacy, capacity, innovation and partnerships

Executive Council 57 Decision: **Proposal for Assembly 2025 and ongoing outreach**

A first step – is a proposal for assembly 2025 – whilst building coordination, integration and advocacy

Proposal for evolving GOOS (outlining what needs to be done as a first step)

1. Focus GOOS to be fit for purpose to meet the needs of Member States
2. Review components and revise TOR, as well as MoUs with sponsors and partners
3. Create a functioning Digital Ecosystem to enable end user applications
4. Evolve a user and uptake strategy
5. Determine a process to set a new GOOS strategy synergised with Decade Challenge 7
and across IOC processes

Management Team

Coordinate and advocate international, regional and national support and engagement, with clear communications and process

Continue to engage with Member States and other stakeholders for transparency and support

Questions?

Election of Co-Chairs

Election of SC Co-Chairs

Volunteers needed

Co-chair responsibilities:

- Chairing GOOS SC meetings
- Representing GOOS at IOC governing body meetings (1 week/year in June)
- Representing GOOS at WMO INFCOM Sessions (½ -1 day/year and INFCOM management group meetings ½ -1 day/ year in person or virtual)
- Co-Chair meetings with IOC secretariat once a month (1h virtual)
- Meetings with GOOS Executive team (90 mins approx. 4 - 6 times/year)
- Representing GOOS at UNFCCC COP, CBD COP, UN Ocean Conference in 2025, and other relevant international meetings (roles can also be divided across SC members, expertise and location)

Email: Joanna Post (j.post@unesco.org cc e.heslop@unesco.org)



Meetings & Next steps

Quarterly virtual meetings

Next: 19 September (substantive discussions with focus on Evolving GOOS Structure and Governance - consider process to develop proposal for IOC Assembly 2025, consultation etc.)

Dec 2024/Jan 2025

Annual in-person meeting (4 days, generally April)

Week of 7 April provisionally hosted by NIOF (Alexandria, Egypt)





The Global Ocean Observing System

Thank you

goosocean.org

