



# Global Ocean Observation Systems (GOOS) Steering Committee Meeting

14<sup>th</sup> to 17<sup>th</sup> April 2024  
Barcelona, Spain

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UNEP sponsorship, GOOS Community interaction/ current and upcoming areas for engagement

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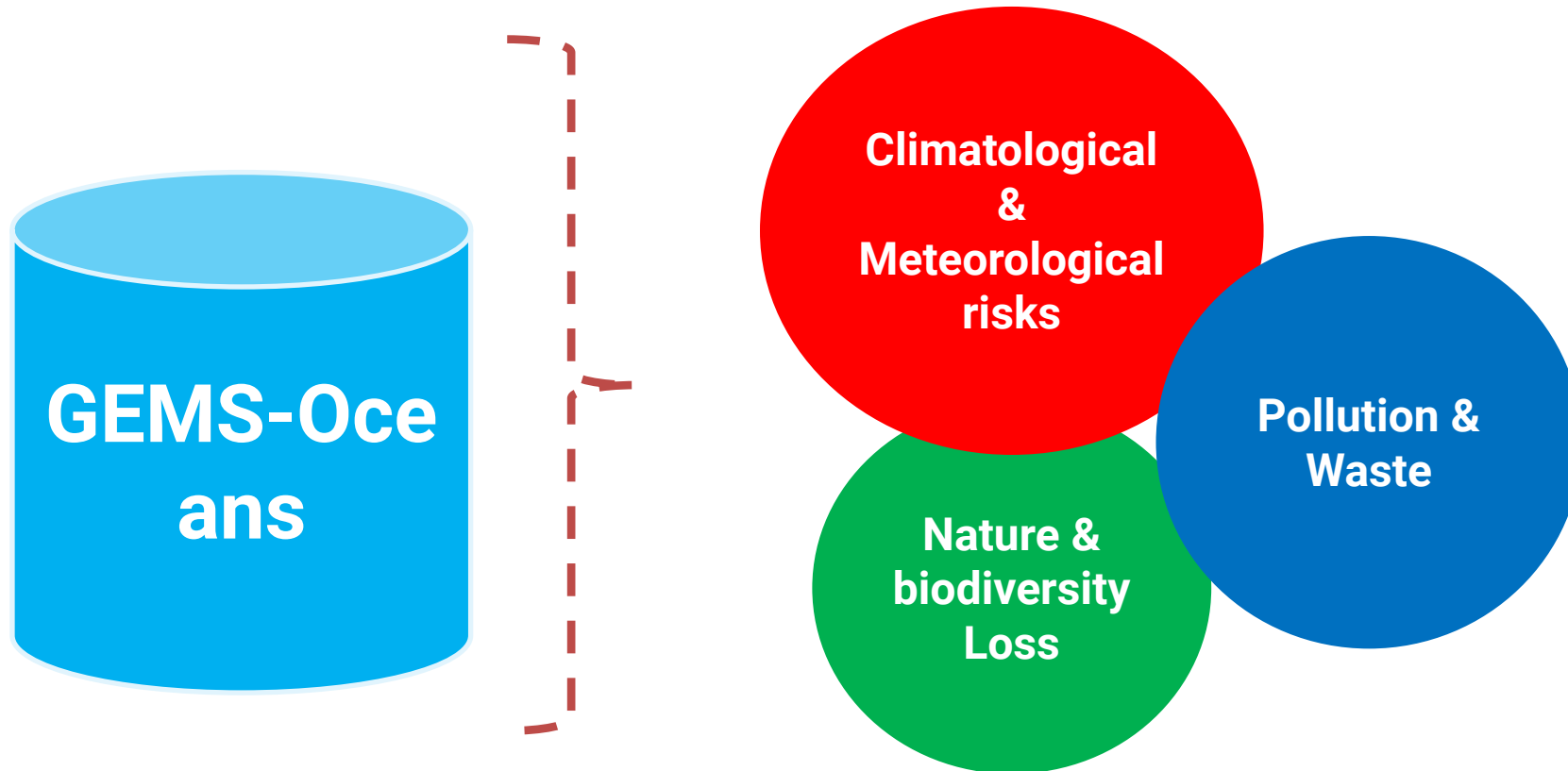
# Introduction

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- UNEP's role as a co-sponsor and part of the GOOS Steering Committee:
  - Representation of interests and agenda setting (e.g. relevance of EOVs in UNEP's Ocean mandate, and expanding to coastal dimension and climate adaptation/mitigation, Regional Seas)
  - Contributing to the SC composition and leveraging global expertise
  - Continue engaging GOO in UNEP's Programme of Work and MTS (UNEA Mandates; Science Policy Interface)
- Continued collaboration with GOOS in the co-design of GEMS/Oceans and new focus on Early Warning for the Environment (EWE4E) UNEA-6 Resolution *Strengthening ocean efforts to tackle climate change, marine biodiversity loss and pollution* called for the UNEP ED to Contribute to the Early Warnings for All initiative at all levels.
- Building on existing ocean monitoring/observation prioritize niche for GEMS/Oceans.
  - Capitalize Essential Ocean Variables (under climate action, nature and pollution)
  - Bring in meaningful data to inform Natural Capital, Blue Economy, MSP and Ocean Forecasting aspects
  - Mobilize and visualize data/information to support the science-policy interface (GOOS/WESR)
  - Improve integrated management of the ocean and coastal zones – bridging freshwater dimension

# EARLY WARNING FOR ALL INITIATIVE

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Early warning systems are not new, the focus has been more on coverage of climatological and meteorological risks, and the UNSG Early Warning for All (EW4All) initiative aims to provide **100% coverage of Early Warning Systems** for every person on the planet in the next 3 years is a typical example.

# GEMS Ocean Programme

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GEMS Ocean Programme was **officially endorsed by the UN Ocean Decade in September**



1. Making environmental DNA FAIR Commonwealth Scientific and Industrial Research Organization, Australia
2. Assessing Multiple Stressors in Coastal Ecosystems, Federal University of Technology – Paraná, Brasil
3. Observatory of Marine Anthropogenic Litter Universidade Federal do Pará - UFPA Brazil

GEMS Ocean aims to **bring together experts and stakeholders to provide valuable information** for policymaking, focusing on Marine Spatial Planning, Ocean Forecasting, and the Sustainable Blue Economy, essentially contributing to the goals of the **UN Ocean Decade**.

## Sustainable Development Goals



## Ocean Decade Challenges

7. Expand the Global Ocean Observing System
8. Create a digital representation of the ocean



1. **Community building:** Integrate community assets from Oceanprediction DCC Regional Teams and UNEP Regional Seas
2. **Cooperation on capacity building and ocean literacy:** Deliver a plan for ocean literacy and capacity development that take advantage on both structures (special mention to ETOOFS guide)
3. Stablish **the technical basis for future pilot forecasting services in Africa** following the Tools, Standards and Best Practices designed by OceanPrediction DCC.
4. Digital Twinning of the Ocean concept.

# Achievements within the recent timeframe

## Caribbean Sea Digital Twin prototype (CSDTp)

The GEMS Ocean Caribbean Sea Digital Twin prototype (CSDTp) initiative seeks to enhance the management of the Caribbean's coastal and ocean environment using Digital Twin of Ocean (DTO) concepts. This initiative also fosters global connections with other DTO projects.

**Survey conducted by WRI: Data challenges that affect ocean governance in the Caribbean**

## Data Catalogue Integration on WESR

The 2<sup>nd</sup> Level of interoperability of the WESR ( World Environment Situation Room) to facilitate the integration of data catalogues of partners (MOI & IODE) Initial testing involves consuming partner APIs in a staging data catalogue before deploying to the production environment.

UNEP Data Catalogue API endpoints will be shared with GEMS Ocean Partners



Figure 1: Participant at the CSDTp Hackathon.



# Governance Mechanism

- **Community of Practice (CoP)**

All the actors that responded on a voluntary in-kind/basis.

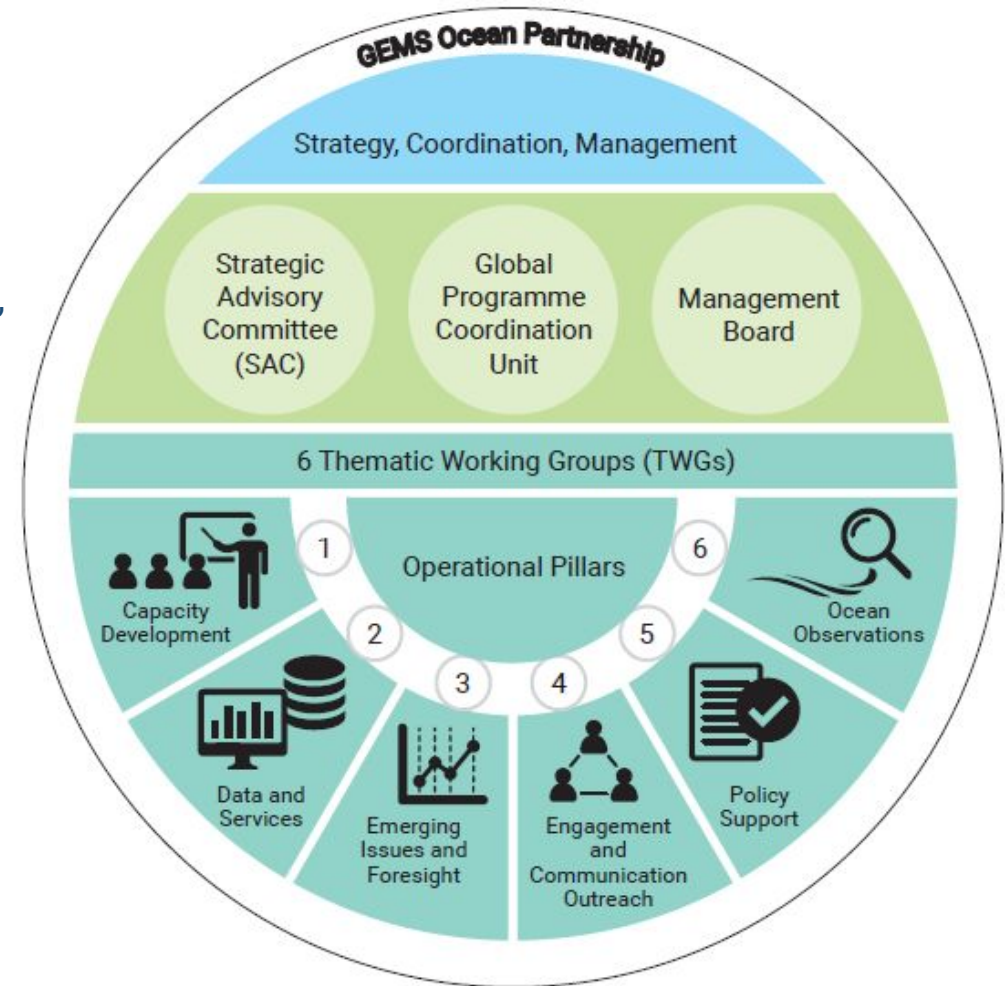
- **Steering Committee (SC)**

Provide strategic guidance including review and approval of work plans, advice resource mobilisation, agreement on data standards.

Membership by transparent selection process, from representatives of observing, monitoring, modelling, political, **MEAs** and private sector communities.

- **Thematic Working Groups (TWG)**

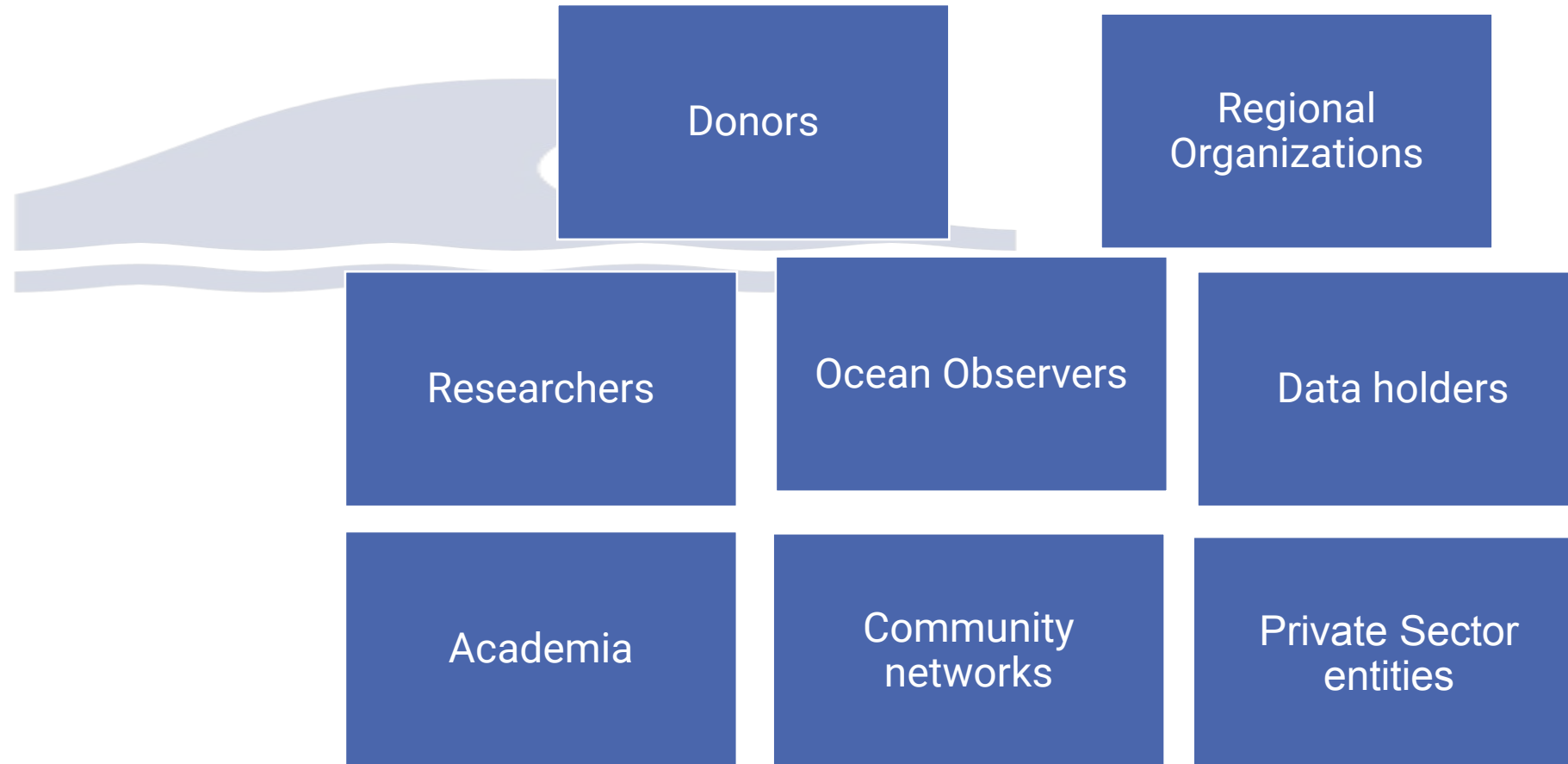
Will act as the operational mechanism of the GEMS Ocean Programme and its CoP and develop deliverables to be reflected in work-packages. Possible TWG: Capacity Development, Data and Services, Engagement and Community outreach, Policy Support, Emerging issues and foresights.



*Potential structure of the GEMS Ocean Programme, including a proposed governance mechanism*

# Partnership Expansion

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2nd UN Ocean Decade Regional Conference &  
11th WESTPAC International Marine Science Conference  
“Accelerating Ocean Science Solutions for Sustainable Development”  
Bangkok, Thailand, 22 – 25 April 2024

## Upscaling ocean observation, monitoring, and modelling for early warning in the East Asian Seas

Decade Action Workshop 7

# Thank you

**Date:** 24 April 2024

**Venue:** Chelsea A,  
Berkely Hotel

**Time:** 13:30 - 15:30

**Conveners:**

- **Joana Akrofi:** GEMS Ocean, United Nations Environment Programme (UNEP)
- **Mahesh Pradhan:** Coordinating Body on the Seas of East Asia (COBSEA), UNEP



Joana Akrofi/ Early Warning and Assessment Division/ Global Environment Monitoring System for Ocean and Coasts (GEMS Ocean )

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