

The Global Environment Monitoring System for the Ocean and Coasts (GEMS Ocean) Programme

Harnessing multistakeholder partnerships to transform data into
action



GEMS Ocean Programme



The Global Environment Monitoring System for the Ocean and Coasts (GEMS Ocean) Programme was **officially endorsed by the UN Ocean Decade in September 2022.**

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.**

Strategic Goals

Problem 1: There are many observation and monitoring systems, but they are rather fragmented.

Problem 2: Many Small Island Developing States (SIDS) and Developing Countries don't have the capacity and resources to undertake effective monitoring.

Problem 3: There is much information and data already but is not easily accessible and interpretable by non-experts.

GOAL 1: Promote and convene a **transdisciplinary partnership** approach focusing on sustainable coastal and ocean use and ecosystem health.

GOAL 2: Strengthen **capacity development** on key aspects of ocean monitoring especially in **SIDS and Developing Countries**

GOAL 3: Provide **access to the use of quality assured, interoperable, open environmental data**, analysis and **sets of indicators to governments and stakeholders.**

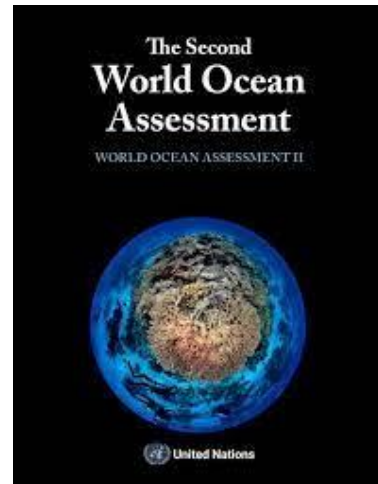
Framing of GEMS Ocean



United Nations Framework
Convention on Climate Change



Convention on
Biological Diversity



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

GEMS Ocean Programme



- GEMS Ocean Programme filters existing data on marine and coastal resources according to **UNEP'S Medium-Term Strategy (MTS) 2022-2025**-Biodiversity loss, climate change and pollution- and leverages the World Environment Situation Room (WESR) platform and other relevant partner portals to display data, models, and analytics in an easily interpretable form

➤ Sustainable Development Goals

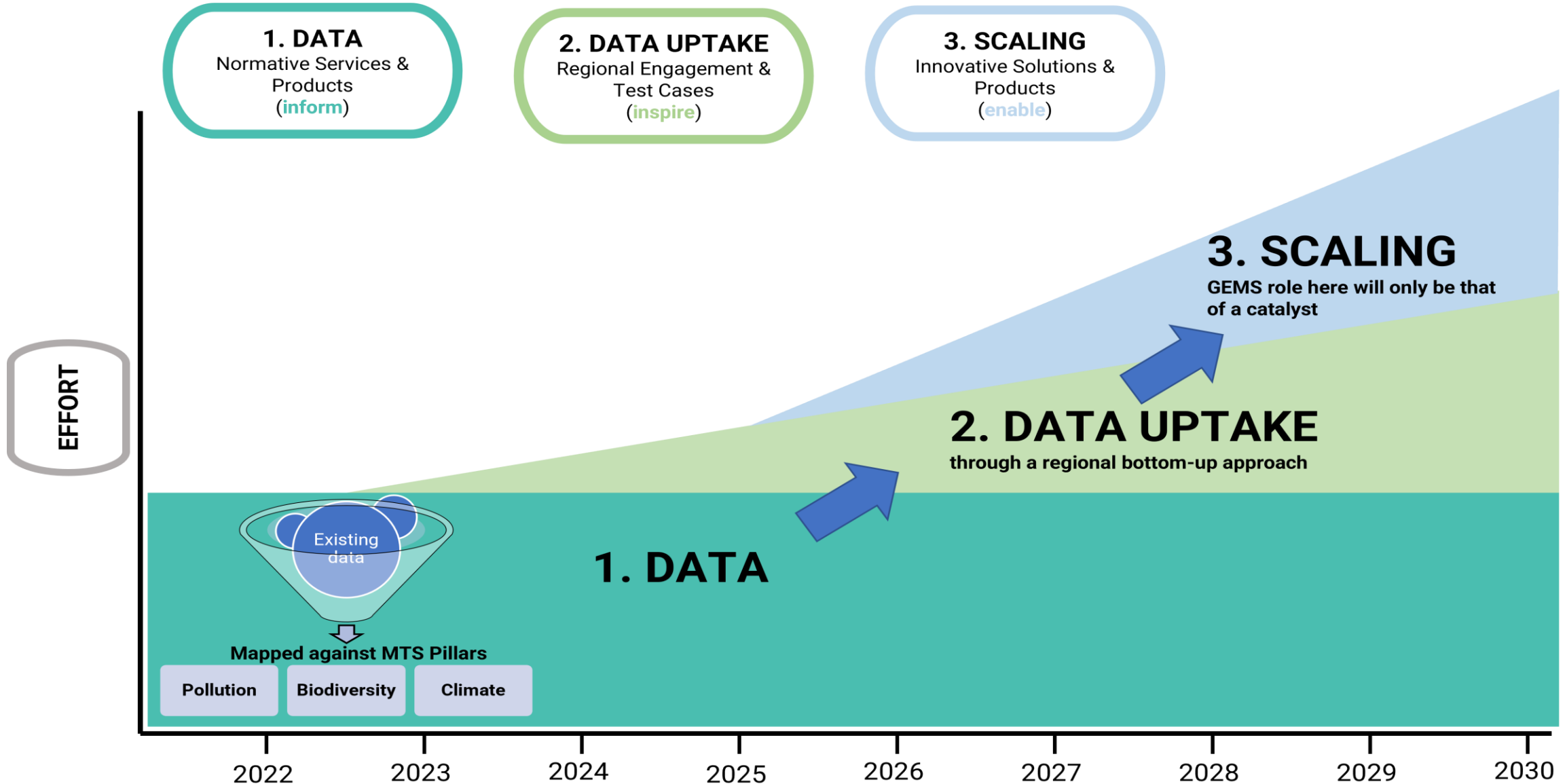


➤ Ocean Decade Challenges

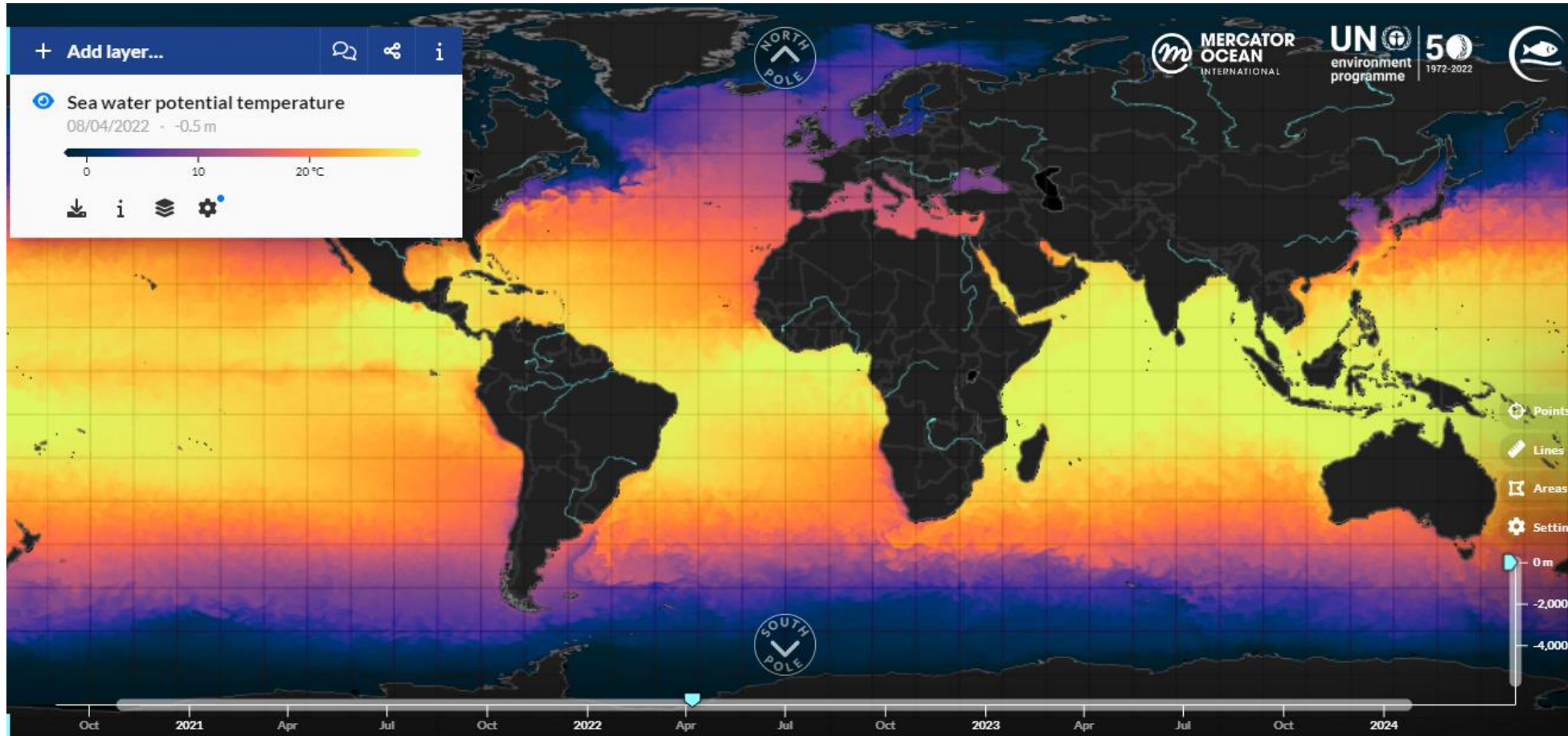
- 7. Expand the Global Ocean Observing System
- 8. Create a digital representation of the ocean



Delivery model



Data Hub and Supporting Partners :My Ocean Tool



**MERCATOR
OCEAN**
INTERNATIONAL

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 2nd 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.

Planned/Future Activities

- 
- The UN Ocean Decade Collaboration Centre on ocean prediction
 - Establishing a Community of Practice/ Governance/Working Groups
 - Collaboration with the Go Blue projects to build capacity at county level
 - Focus on critical ecosystems as a thematic area.
 - Collaboration with other regions including COBSEA and the Nairobi Convention; Western Indian Ocean(WIO) region
 - Partnership with Mauritius



Governance Mechanism

- **Community of Practice (CoP)**

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

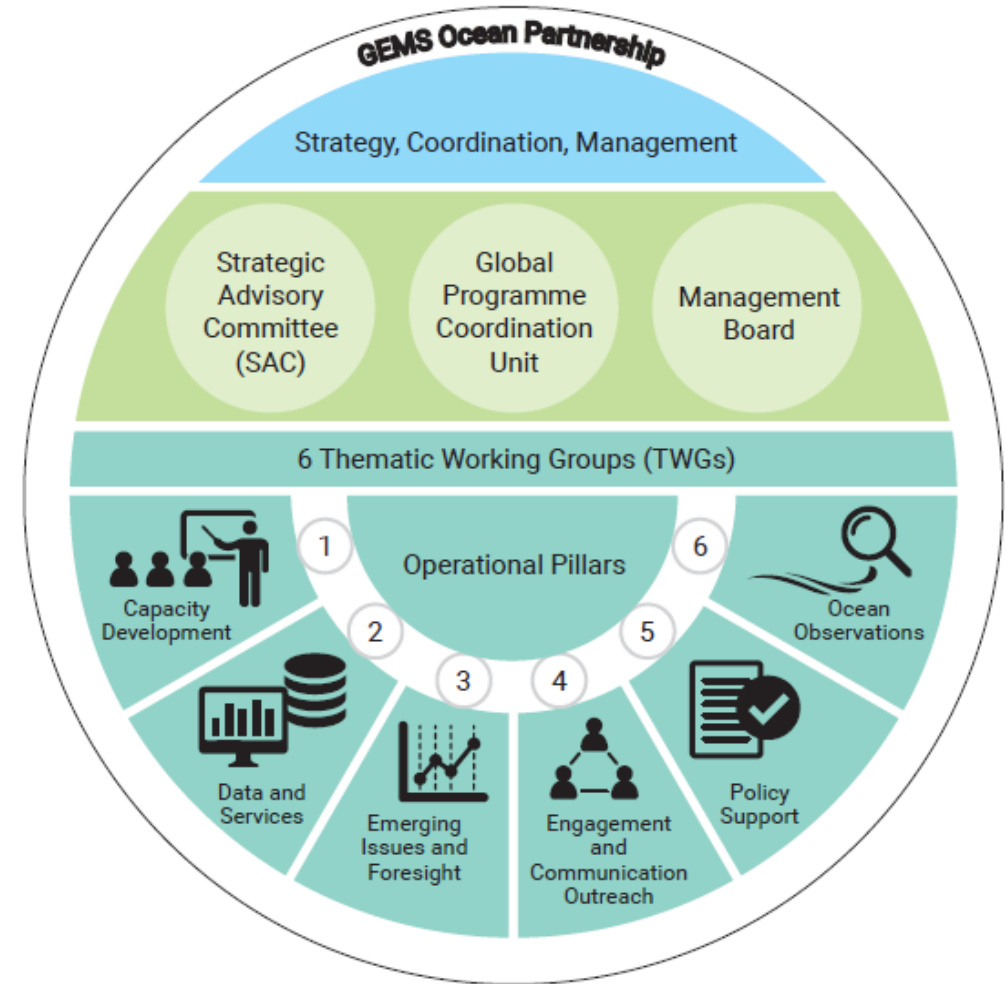
- **Steering Committee (SC)**

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

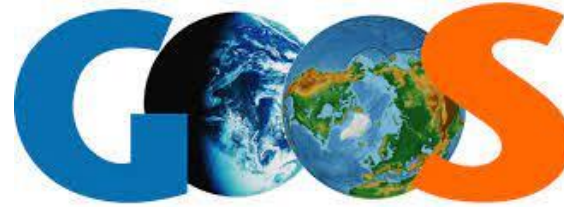
Core Partnership



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



The Global Ocean Observing System



FUTURE OF THE SEAS
& OCEANS INITIATIVE



MERCATOR
OCEAN
INTERNATIONAL



A Centre collaborating with UNEP



research for global sustainability



WORLD
RESOURCES
INSTITUTE

Thank you for your attention!

Contacts: unep-ewad-gemsocean@un.org

**Aspiring to Achieve the Sustainable Development Goal 14:
to "Conserve and sustainably use the oceans, seas and marine resources for sustainable development"**

