

Ocean observation is critical infrastructure, it is time to fund it as one.

OCEAN OBSERVATION

Weather forecasts, early warnings, safe shipping, fisheries, climate resilience and ocean industries all depend on knowing what is happening in the ocean. The Global Ocean Observing System (GOOS), co-sponsored by the Intergovernmental Oceanographic Commission (IOC) of UNESCO, World Meteorological Organization, UN Environment Programme and the International Science Council, brings together countries, observing networks and institutions to provide that information. More than 80 countries contribute observations from over 8,000 platforms, generating more than 120,000 observations every day. Yet less than 10% of the ocean is regularly observed.

The system is increasingly vulnerable to underinvestment, ageing infrastructure and major geographic and capacity gaps. Its funding base is insufficiently diversified, and the global coordination needed to make the system work remains severely constrained. **The ocean is changing rapidly and the infrastructure we use to monitor it must keep pace.**

WHAT NEEDS TO CHANGE

This is not simply a question of buying more instruments.
A resilient global observing system needs:

- **Continuity**: keep established observing networks operating and replacing ageing infrastructure before long-term data sets are lost.
- **Coverage**: close critical data gaps in the Southern Hemisphere, the Arctic, the deep ocean, coastal areas and other under-observed regions.
- **Capacity**: enable more countries, particularly Small Island Developing States and LDCs, to participate in and benefit from global ocean observing.
- **Coordination**: strengthening the international expertise, governance, standards and infrastructure that connect national and regional investments into one functioning global system. This is the work of the GOOS Secretariat within IOC-UNESCO, of OceanOPS, the expert panels and the GOOS regional alliances.

A GLOBAL SYSTEM NEEDS GLOBAL INVESTMENT

The OceanEye International Alliance to support GOOS, co-led by the European Union and Canada in cooperation with IOC-UNESCO as the Secretariat for GOOS, provides a framework through which governments, philanthropy and the private sector can broaden and diversify support to IOC-UNESCO and GOOS. The European Commission will contribute €62 million through Horizon Europe.

WHAT CAN A CONTRIBUTION LOOK LIKE?

Fund it. Provide sustained, multi-year financial support for observing programmes, coordination and the people and expertise needed to keep the global system working.

Strengthen coordination. Support the GOOS Secretariat, expert networks and regional coordination, helping countries and observing networks work together, align priorities and maintain common standards.

Put capacity to work. Make vessels, sensors, drones, submarine cables and other platforms available, or provide technical specialists and other human capacity where it is needed.

Build and share infrastructure. Invest in observing and digital infrastructure, help replace ageing or at-risk assets, or make existing infrastructure available to the wider system.

Share data and expertise. Make relevant datasets, knowledge and technical expertise available so they can contribute to a global system and serve multiple users.

THE RETURN IS SYSTEM-WIDE

Ocean observations are unusual infrastructure. One investment can serve many users and many purposes. The same observations strengthen weather and extreme-event forecasting, climate resilience, maritime safety, fisheries management, biodiversity protection and sustainable ocean development. International coordination and shared infrastructure increase that value further by enabling data reuse across countries and sectors.

Investing in GOOS means investing in the infrastructure behind many other investments, in climate resilience, disaster preparedness, food security, biodiversity and sustainable ocean economies.

Produced in collaboration with the GO Ocean campaign
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