

An Overview of the Partnership for Observation of the Global Ocean (POGO)

Observing
the Global Ocean

What is POGO?

Created in 1999, POGO is an international consortium of major oceanographic institutes, represented by their Directors.

POGO's goal: World-wide cooperation for a sustainable, state-of-the-art global ocean observing system that serves the needs of science and society.



POGO Strategy launched in 2021 –available in 5 languages:



عربي
English
Español
Français
Português



English
Français





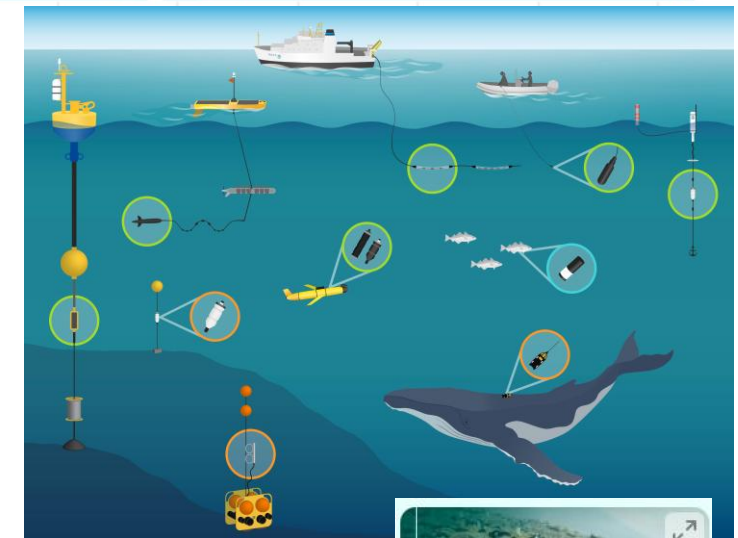
International Quiet Ocean Experiment outputs

- Inventory of standards, guidelines & literature
- Ocean Sound EOVI Implementation Plan (900 downloads)
- Hydrophone metadatabase and map of locations
- Acoustic data portal
- Development of low-cost, open-source hydrophones (underway, with POGO funding)
- Open-access publication of textbook on “Exploring animal behaviour through sound” accessed >250,000 times

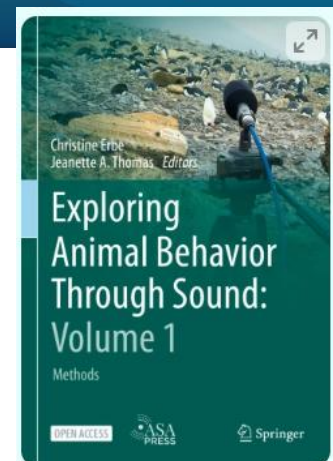
Passive Acoustic Monitoring:

- **Climate:** extent and breakup of sea ice, extreme weather events (storm, hurricanes); frequency and intensity of wind, waves and rainfall
- **Biodiversity:** distribution & behaviour of sound-producing species; forecasting, monitoring, and mitigating impacts of human activities on wildlife
- **Threats:** detecting nuclear explosions, illegal/threatening vessels, human activities in protected areas, and underwater earthquakes (tsunamis alert)

Ocean Sound Observations Reported to IQOE (n=103,803)
27 September 2024



<https://iqoe.org/>



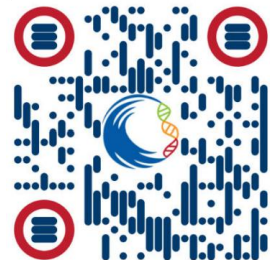
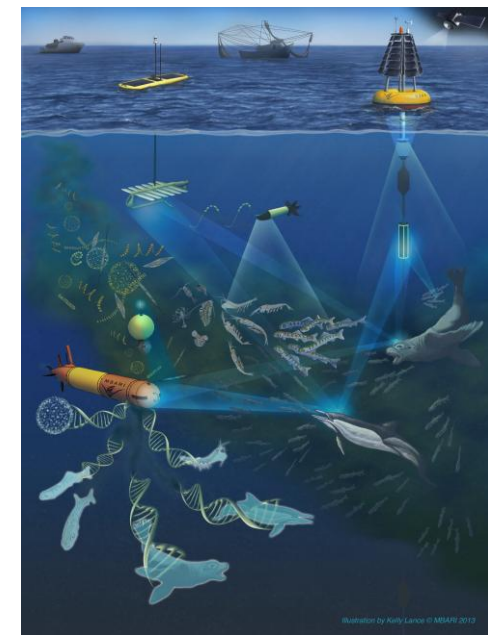
Ocean Biomolecular Observing Network

Vision: To accelerate informed decision-making to restore the health of our ocean using the universal signatures of life on Earth: biomolecules.

1. Build a coastal-to-open ocean multiomics biodiversity observing system; develop autonomous sampling and analysis capability; promote methods/technique development
2. Enhance marine 'omics' data systems and enhance ecosystem models by adding biomolecular components
3. Partner with marine conservation and management specialists, policymakers, private sector and to address sustainable development
4. Develop and transfer capacity through training programs combined with funded equipment programs supported by development/aid agencies and philanthropy

Current and future directions

- Working Groups on methodology, reference libraries, capacity development, technology, data synthesis
- Developing a regional network in the Western Pacific
- Workshop on eDNA for fisheries management
- Shipboard training in Atlantic and Indian Oceans (AMT, OceanX-OceanQuest Around Africa Expedition)



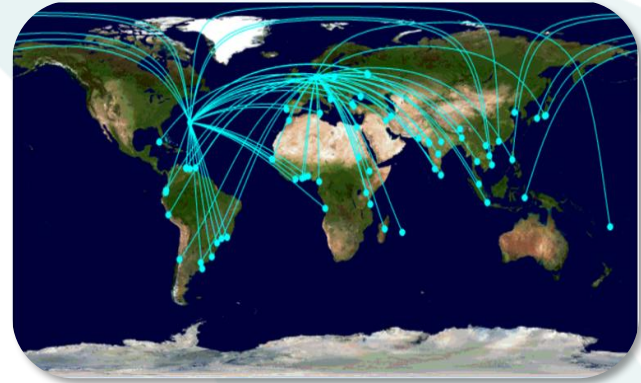


2 Capacity development

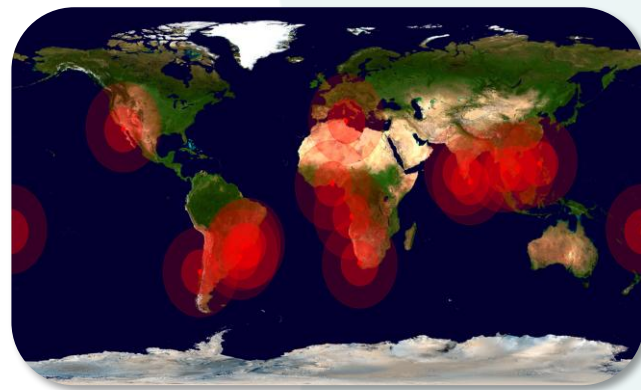
99 Countries

>1400 Training grants

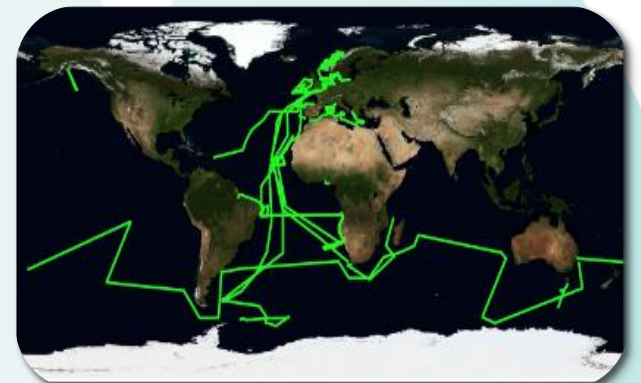
Visits to advanced oceanographic institutes



Regional trainings in developing countries



Shipboard training



Training opportunities in developed countries

NF-POGO Centre of Excellence at OFI



Each year, ten young scientists from ten, mostly developing, countries, study for ten months in an intensive programme on ocean observations.
Phase 1: BIOS, Bermuda; Phases 2-3: AWI, Germany;
Phase 4 (current): OFI, Canada.

POGO-SCOR Visiting Fellowships



Scientists from developing countries spend up to 3 months receiving one-to-one training and supervision in ocean observations at a major oceanographic institution.

Regional training opportunities



Countries with past regional trainings

NF-POGO Regional Training Programme on Sustainable Marine Resource Management (Bangladesh)



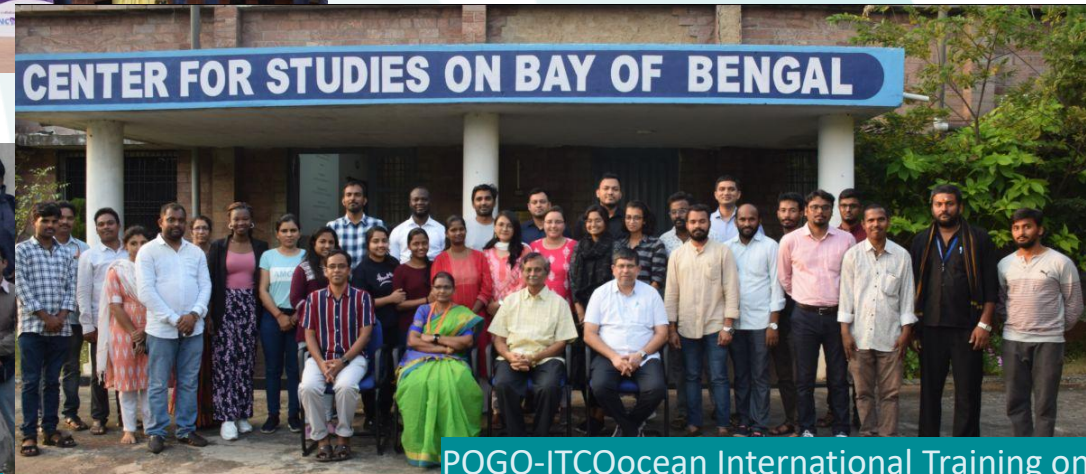
Introduction to Observational Physical Oceanography (Benin)



POGO/CLIVAR IORP Regional Training Workshop on Observing the Coastal and Marginal Seas in the WIO



Austral Summer Institute (Chile)



POGO-ITCOcean International Training on Ocean Observations to Societal Applications (India)

Training at sea

Pooling infrastructure, resources and expertise to provide practical hands-on, ship-board technical skills whilst building capacity in oceanographic observations

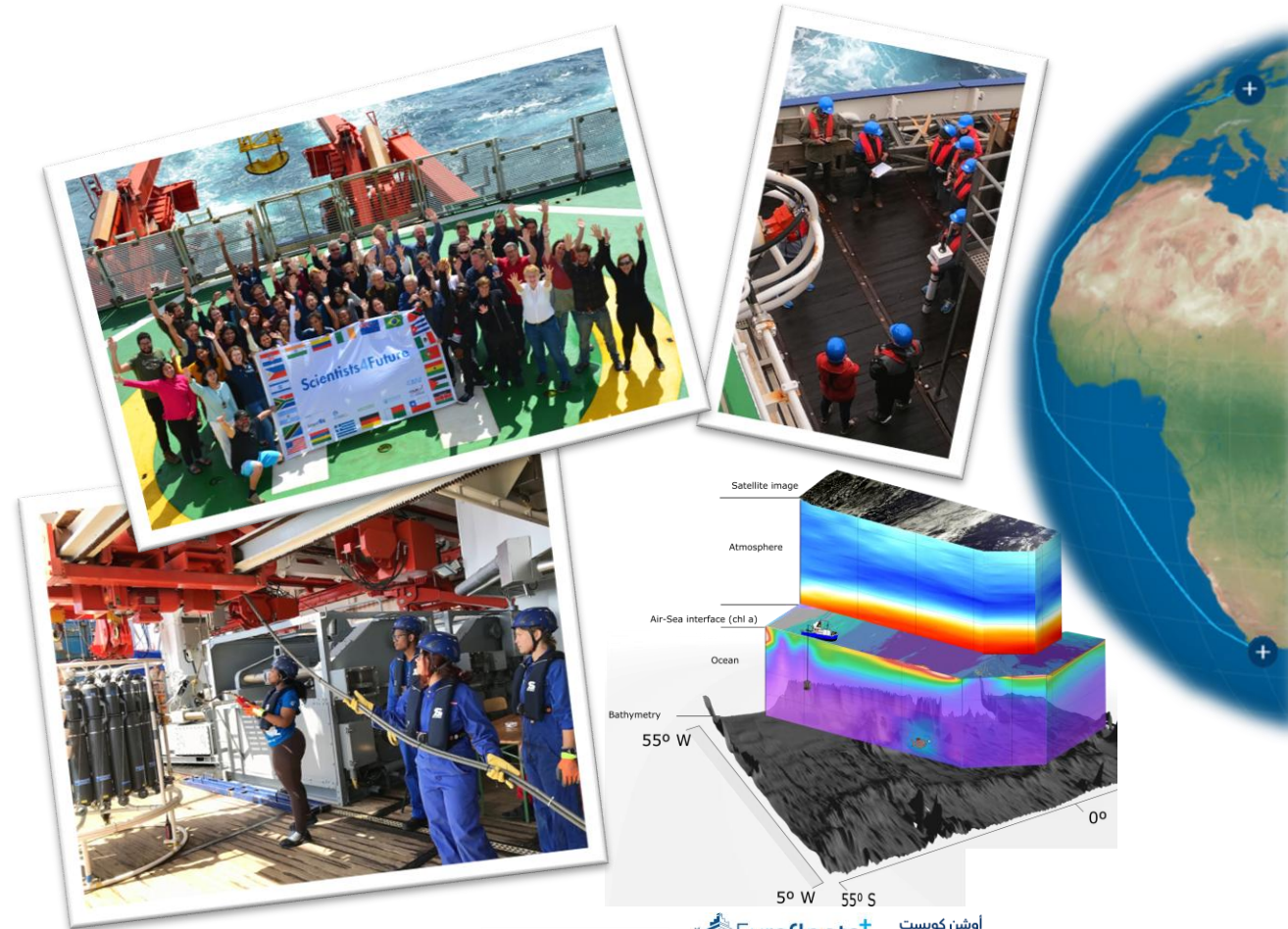


OCEAN
TRAINING PARTNERSHIP

One-on-one training



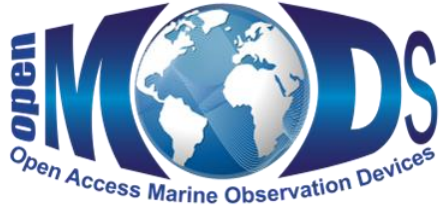
Training-dedicated cruises



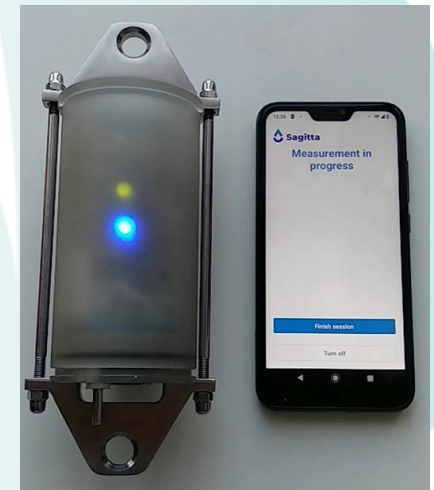
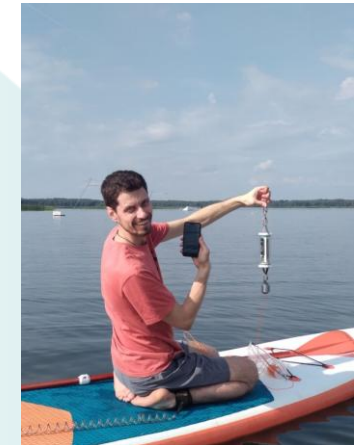
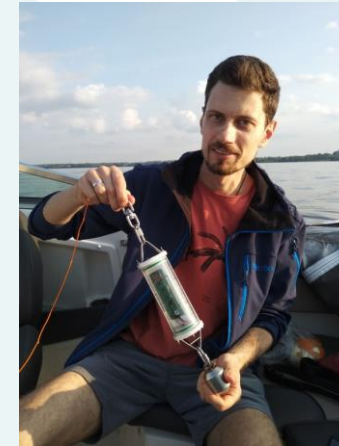
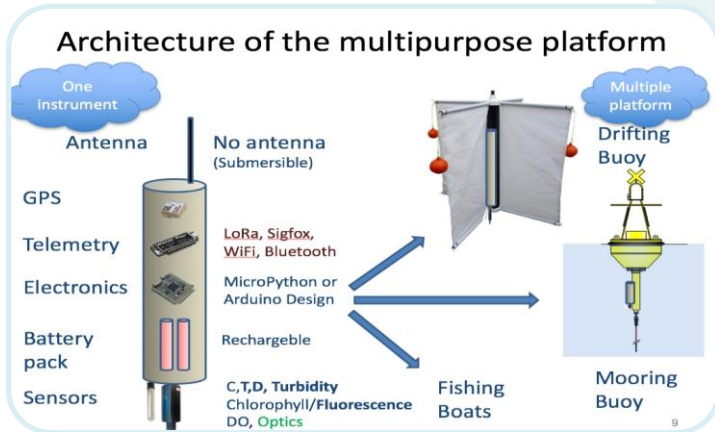
Partners



Low-cost technology development

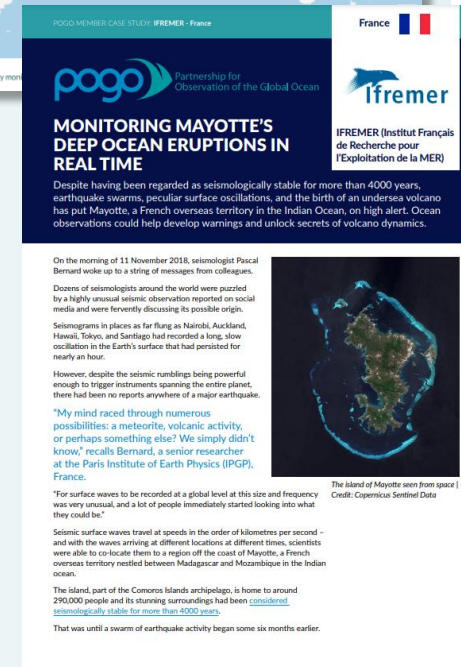
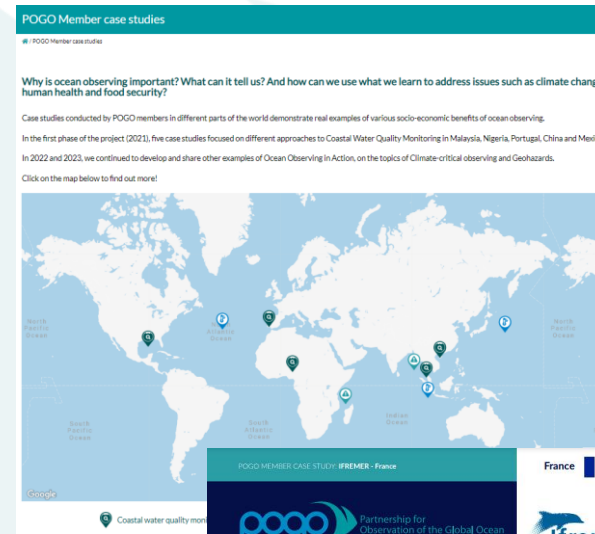


- User-friendly, low cost and easily deployable instrumentation
- Drifter and moored platform.



Ocean Observing Case Studies

- Written by a freelance science writer, in collaboration with POGO member institutions, illustrating the socio-economic benefits of ocean observing
- 10 case studies in total
 - Climate Critical Observing (3)
 - Water quality (5)
 - Geohazards (2)
- Future plans: Considering targeted topics – such as biomolecular observations, ocean sound, etc
<https://pogo-ocean.org/pogo-member-case-studies/>



Citizen science - COLLECT



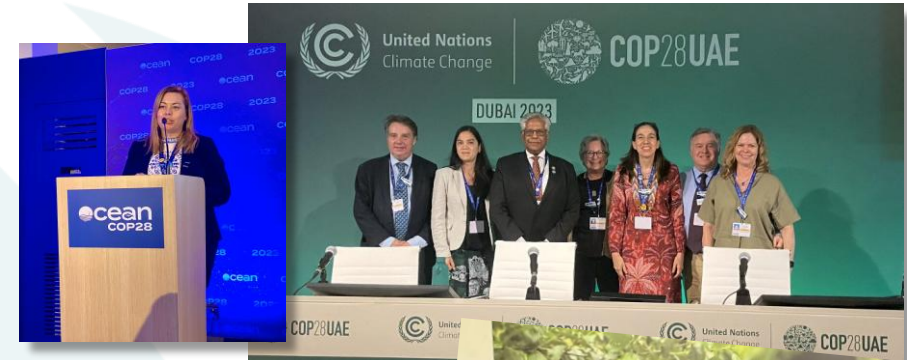
- Meeting on plastic pollution/training on sampling protocols
- October-November 2021 (wet - season/Autumn)
- March–April 2022 (dry - season/Spring)
- ~10 groups of 5 - 6 students / sampling event
- Questionnaires prior and after participating in the activity
- Working languages: English, French, Portuguese and Spanish

Members involved:

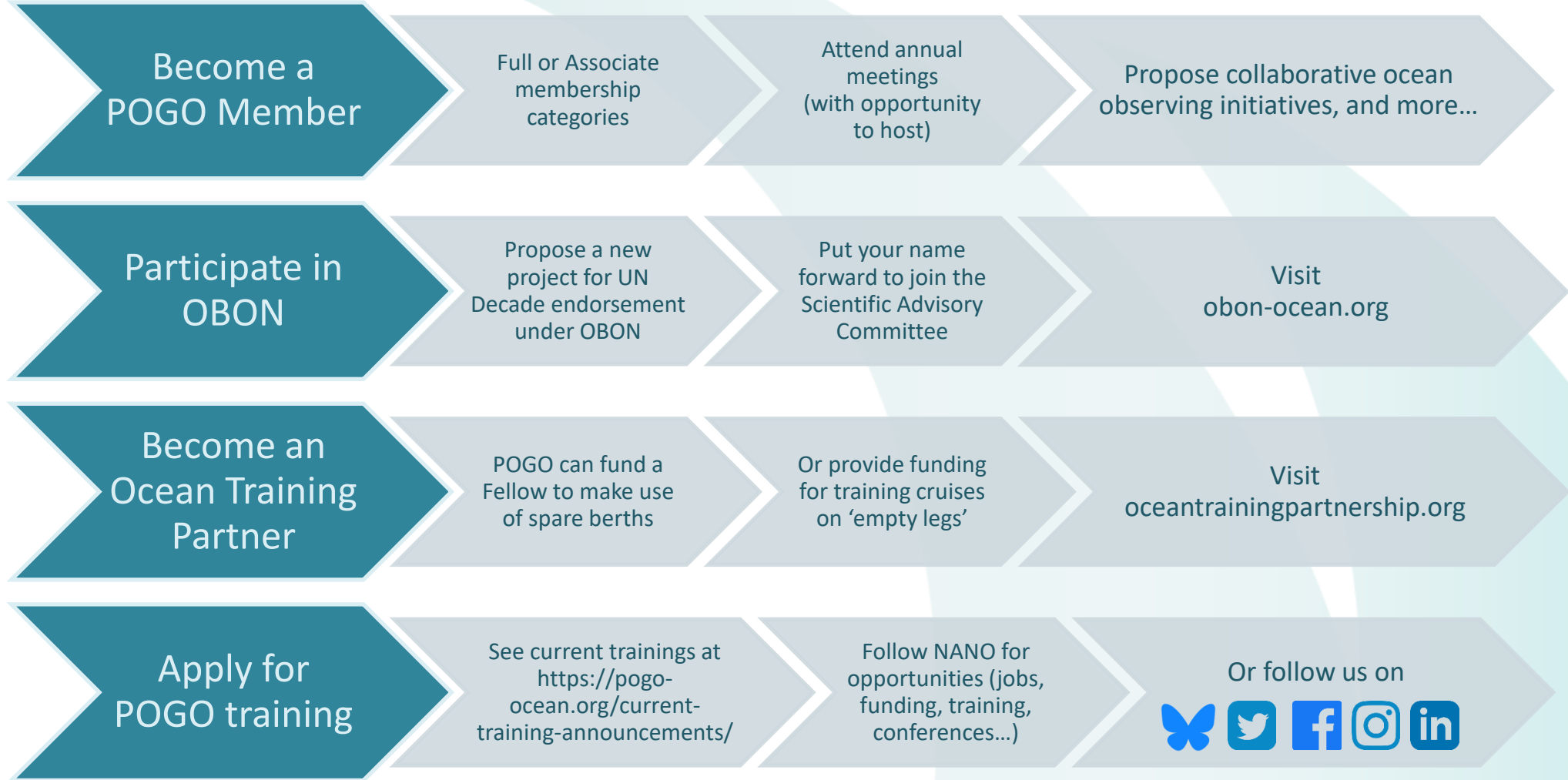


Policy and international engagement

- POGO accredited by UNFCCC and CBD
- We have regularly attended Climate COPs since 2017 and (co)-organised exhibits and side-events on ocean obs for climate
- In 2024, attended Biodiversity COP16 where we had an exhibition stand highlighting the potential of eDNA for biodiversity monitoring
- Statements and declarations issued at major events to highlight the critical need for sustained, global ocean observations, particularly for biodiversity & ecology
- POGO a UN Decade Implementing Partner.



How to get involved



Contact



POGO Secretariat

- Plymouth Marine Laboratory, UK
- Centre of Marine Sciences of the Algarve, Portugal

Western Pacific Regional Node

- Ocean Decade Collaboration Center, Qingdao, China.



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