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OBON is a UN Ocean Decade endorsed programme, led by POGO



Our vision is to accelerate informed decision-making to restore the health of our ocean using the universal signatures of life on Earth: biomolecules

OBON: A key component of next-generation ocean observing systems to transform how we sense, protect, utilise, and manage ocean life.

Endorsed projects reflect the demand for large-scale, affordable biological observations, including autonomous capabilities.

## OBON Objectives

1. Build a coastal-to-open ocean multi-omics 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

## OBON Projects

- Mission Ocean Microbiomes (Tara Microbiomes)
- WCO Biomolecular Observing Network (WCO-BON)
- Naples Ecological REsearch Augmented observatory (NEREA)
- Hakai Institute Biomolecular Observing Network (HI-BON)
- Better Biomolecular Ocean Practices (BeBOP)
- Pacific Islands Marine Bioinvasions Alert Network (PacMAN)
- E-DNA expeditions in marine World Heritage sites
- Pacific eDNA Coastal Observatory (PECO)
- Scripps Ecological Observatory (SEO)
- European Marine Omics Biodiversity Observation Net (EMOBON)
- Observing and Promoting Atlantic Microbiomes
- DNA-based approaches for fisheries monitoring
- National Biodiversity DNA Library (NBDL)
- OceanOmics: Monitoring & Protecting Ocean Life
- Guidance on Optimal Timing for eDNA (GOTeDNA)
- Marine Biodiversity Library & MPA eDNA monitoring
- Making Environmental DNA FAIR
- AMT-omics: Atlantic Meridional Transect 'omics network
- ATLASea: Atlas of Marine Genomes
- West Coast Ocean Biomolecular Observing Network (WC-OBON)



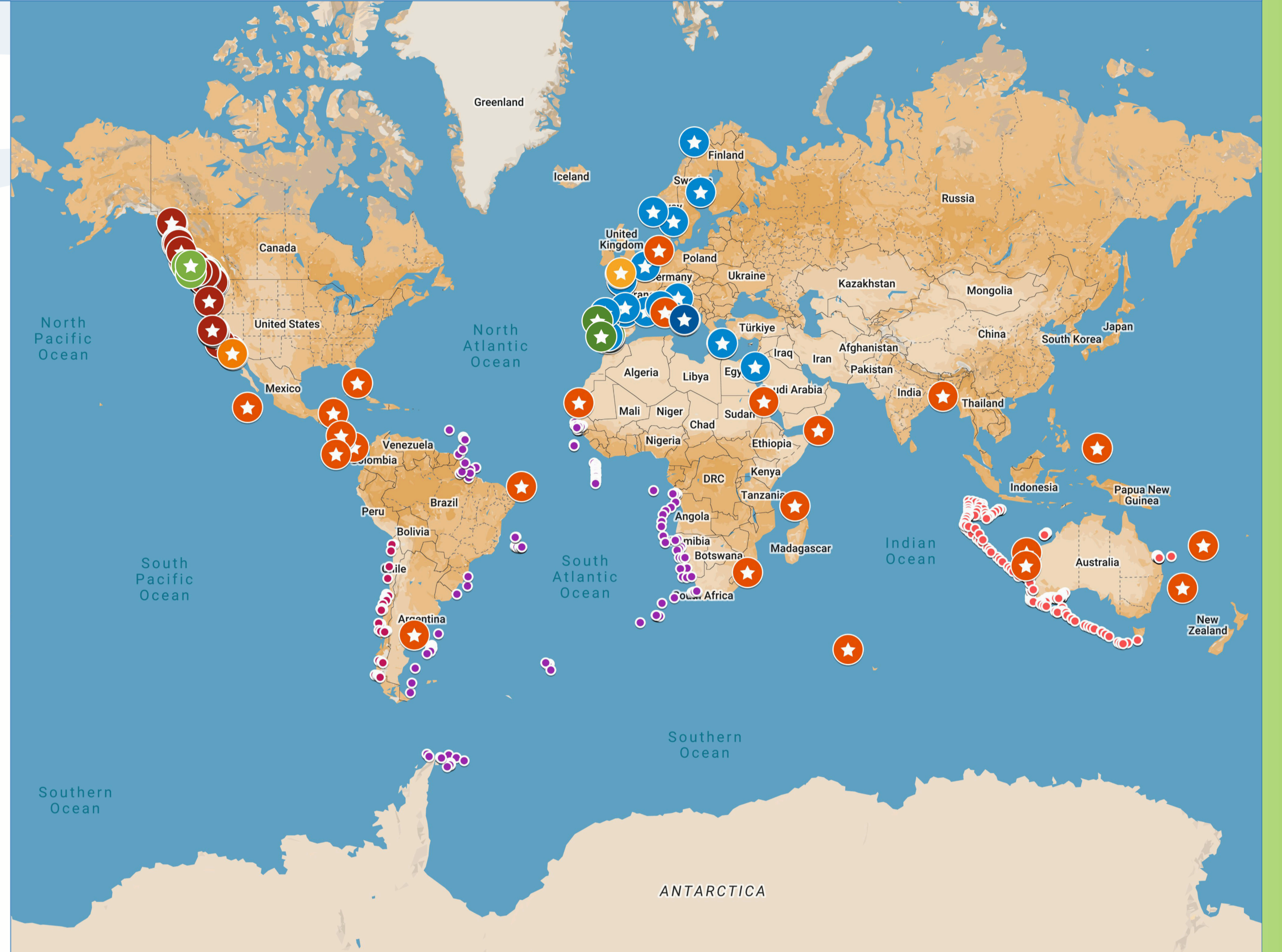
## OBON Sampling Locations

### Long-term monitoring locations by project

- Pacific eDNA Coastal Observatory
- Hakai Institute Biomolecular Observing Network
- EMOBON
- UNESCO eDNA Expeditions
- UMinho-Portugal / A-FISH-DNA-SCAN
- Naples Ecological REsearch Augmented observatory
- WCO BON
- Scripps Ecological Observatory

### One-off/occasional sample sites by project

- OceanOmics
- Mission Microbiomes CEODOS (2021)
- Mission Microbiomes AtlantECO (2021-2022)



## OBON Scientific Advisory Committee

- Pier Luigi Buttigieg, GEOMAR, Germany
- Francisco Chavez, MBARI, USA
- Neil Davies, Gump Station, Moorea, French Polynesia
- Annette Govindarajan, WHOI, USA
- Kazi Ahsan Habib, Sher-e-Bangla Agricultural Univ, Bangladesh
- Sophie von der Heyden, U Stellenbosch, South Africa
- Tadashi Kajita, U Ryukyus, Japan
- Margaret Leinen, Scripps Institution of Oceanography, USA
- Matt Lemay, Hakai Institute, Canada
- Christopher Meyer, Smithsonian Inst, USA (ML2030 liaison)
- Raissa Meyer, Alfred Wegener Institute, Germany
- Hassan Moustahfid, NOAA, USA
- Nicolas Pade, EMBRC, France
- Katie Pitz, MBARI, USA
- Alejandra Prieto Davó, UNAM, Mexico
- Eric Raes, Minderoo Foundation, Australia
- Julie Robidart, National Oceanography Centre, UK
- Sophie Seeyave, POGO, UK (ex officio)
- Aileen Tan Shau Hwai, U Sains Ntingham Malaysia, Malaysia
- Jodie van de Kamp, CSIRO, Australia
- Kim Shan (Alison) Wee, Univ of Nottingham Malaysia, Malaysia
- Willie Wilson, Marine Biological Association, UK
- Vanessa Yepes Narvaez, INVEMAR, Colombia
- Xiaowei Zheng, Nanjing University, China

## OBON Strategy Framework

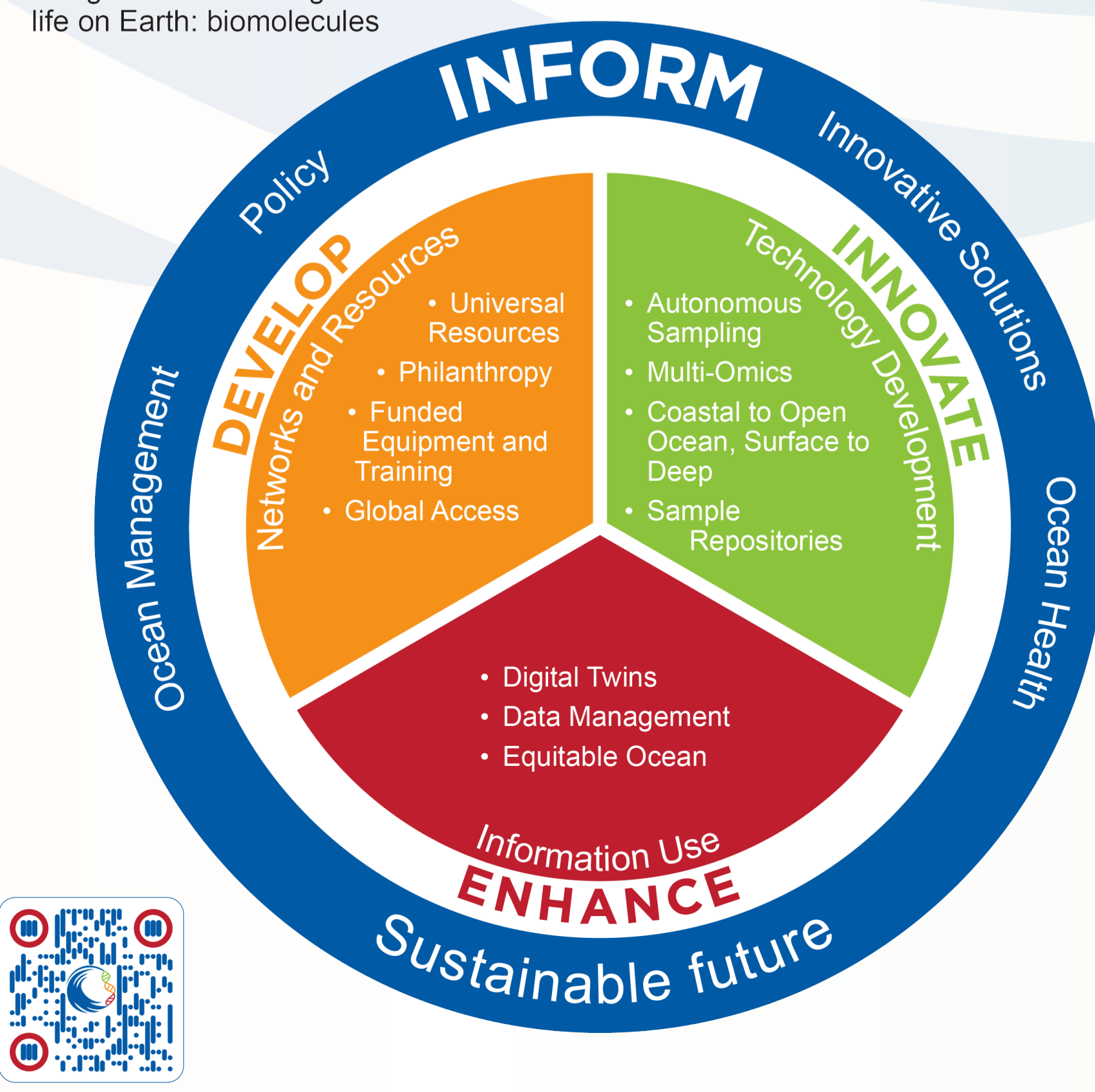
OBON's core pillars are to **Innovate** technology and methodologies, delivering frameworks to advance biomolecular observations from the coastal to the open ocean, thus enabling broad-scale interpretations and scientific discovery; to **Develop** capacity globally, to advance observations and analyses while ensuring equitable access to ocean knowledge and resources; and to **Enhance** the use and interpretation of these data through agreed data practices and model integration, and the creation of ocean knowledge. Together, this work **Informs** ocean users and managers, ensuring sustainable interactions in support of a healthy ocean.

### VISION

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

### MISSION

To create a hub for biomolecular measurement of marine life on Earth.

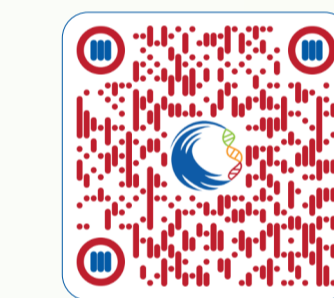


## Current & Upcoming Activity

The OBON Newsletter is published quarterly, in February, May, August and November.



Join our mailing list to receive it directly to your in-box, or keep an eye on our social media channels (see below).



Check the Events Page on the OBON website for the most up-to-date information about upcoming activities.

## Recent Activity

### OBON Exhibits and Side Events at COP16

The UN Biodiversity Conference 2024 was held in Cali, Colombia from 21 Oct to 1 Nov 2024. POGO and OBON led a satellite event in collaboration with GEO BON, on the topic of "Observing biology and ecosystems in the ocean for effective biodiversity conservation", in the GEO Pavilion in the Blue Zone (image, right). OBON and POGO also co-hosted an exhibit booth.



### Side Event at COP29

OBON participated in a side event: "Three COPs, One Ocean" on 20 Nov 2024, at the UN Climate Change Conference in Baku.

### OBON Annual Meeting 2024

From 6-8 Nov 2024, POGO and Plymouth Marine Laboratory, UK, hosted the annual OBON Projects Meeting and Science Advisory Committee.

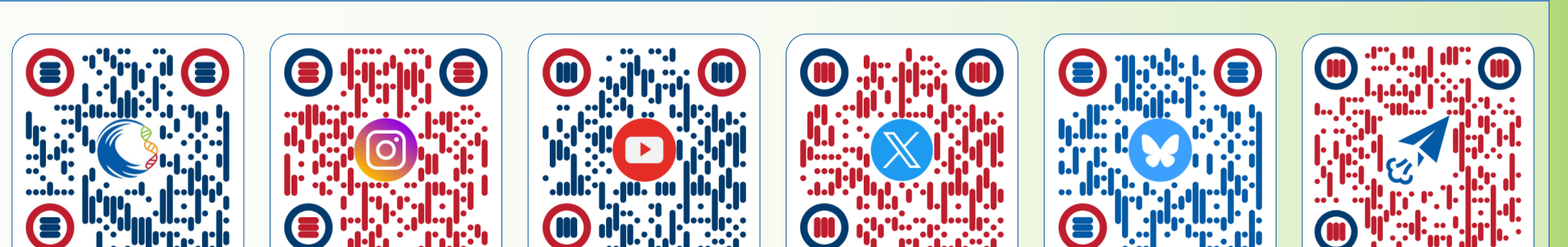
### Network Spotlight: Updates & New Beginnings

During September and October 2024, our webinar series featured endorsed OBON projects, sharing introductions from new network members and progress updates from others. Themes included Reference Libraries, Methodologies, Observatories, Other Observing Programmes, and Societal Applications, Citizen Science and Outreach. All sessions were recorded and are publicly available on the OBON YouTube channel.



Full reports on all recent activities can be found in the quarterly newsletters and on the OBON website.

## Further Information & Contact



OBON Website: [obon-ocean.org](http://obon-ocean.org) | Email us: [observing@obon-ocean.org](mailto:observing@obon-ocean.org)