



2021  
2030 United Nations Decade  
of Ocean Science  
for Sustainable Development

# One Ocean Network for Deep Observation Decade Programme

## Lead Institution

### Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER)

Contact: H  l  ne Leau  
Helene.Leau@ifremer.fr

## KEY PARTNERS

- Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
- European Multidisciplinary Seafloor and Water Column Observatory (EMSO-ERIC)
- Ocean Network Canada (ONC)

## DECADE CHALLENGES ADDRESSED

**CHALLENGE 1:** Understand and beat marine pollution

**CHALLENGE 2:** Protect and restore ecosystems and biodiversity

**CHALLENGE 3:** Sustainably feed the global population

**CHALLENGE 4:** Develop a sustainable and equitable ocean economy

**CHALLENGE 6:** Increase community resilience to ocean hazards

**CHALLENGE 7:** Expand the Global Ocean Observing System

**CHALLENGE 9:** Skills, knowledge and technology for all

**CHALLENGE 10:** Change humanity's relationship with the ocean

## OCEAN BASINS

North Atlantic	North Pacific
Indian	South Pacific
Arctic	

@EMSOeu  
@Ocean\_Networks  
@INTL\_JAMSTEC  
@ifremer\_fr

#DeepOcean  
#Innovation  
#UnderwaterObservatory  
#OceanSciences



## Summary

The deep ocean remains the last unexplored frontier of our planet. A place that holds secrets about the origin of life and could provide ecosystem goods and services for the sustainable development of humankind. On the other hand, serious threats to coastal communities and infrastructures from earthquakes and tsunamis are often associated with the volcanism occurred on the seafloor. High-tech devices and expertise from multiple scientific areas are necessary to further our understanding of how to solve these coast-abysal interactive threats. To do this, we propose a step-change in deep-sea science through connecting inter-/multi-disciplinary observatories and surveying technologies at various sites in the global ocean. The coordination will contribute to integrating knowledge on deep-sea ecosystems functioning under global changes, to advancing hazard mitigation from natural hazards and to engaging citizens with the deep ocean that faces a growing pressure from human activities.

Duration: 01/01/2021 - 12/31/2030

## Priority Activities (first two years)

- Coordination among multi-national & large-scale observatory projects & initiatives;
- Co-design workshops in Mayotte and New Caledonia
- Foster cooperation with industry and business

***"More than 80% of the sea floor is unmapped and unexplored. 'One Ocean Network for Deep Observation' is proud to unveil Earth's final frontier with organizations across the globe to pool scientific knowledge and resources to inspire society and protect our oceans with the best available science."***

*Jean-Marc Daniel, Head of Physical Resources and Deep Ecosystems Department, IFREMER*

