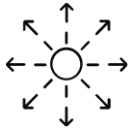




Virtual Research Environment



Core Services



Generic Services



Data Management
Facilities

Blue-Cloud 2026 - federated digital research environment in support of the European Digital Twin Ocean

A federated digital environment to empower scientists, support the EU Mission "Restore our Ocean and Waters" and provide the research foundation for the European Digital Twin of the Ocean (DTO).

Thematic Virtual Labs



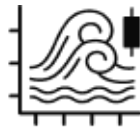
Coastal Ocean
observations along
Europe



Coastal currents
from observations



Carbon-Plankton
Dynamics

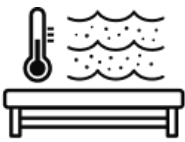


Marine
Environmental
Indicators



Global Fisheries
Atlas

Essential Ocean Variables Workbenches



Physics:
temperature & salinity



Eutrophication: chlorophyll,
nutrients, oxygen



Ecosystem-level
EOVs

Known as "EOSC Node | Digital Twin of the Ocean", : this node **combines major EU marine knowledge assets** (i.e. EMODnet, Copernicus Marine, EDITO), **environmental and marine Research Infrastructures** (from ESFRI and beyond) **to drive marine data provision and open science developments in EOSC.**

- Provides a **shared marine data and tools** infrastructure to monitor, model and predict changes across water systems;
- Enables **integrated evidence-based** decision-making for ecosystem restoration, pollution prevention, and sustainable blue economy practices;
- Makes **marine data and digital services FAIR**, interoperable and available to scientists, policymakers, industry and citizens;
- **Supports innovation**, participation and cross-sectoral solutions **aligned with the Mission's objectives by 2030.**

Consortium of 38 partners, coordinated by



<https://blue-cloud.org/>



Blue-Cloud2026

A federated European FAIR and Open Research Ecosystem for oceans, seas, coastal and inland waters

EOSC Node

Digital Twin of the Ocean
Environment

