Mission Restore our Ocean and Waters



Cross-cutting enablers for the mission:

- Digital Ocean and Water knowledge system
- Public mobilisation and engagement

PROTECT AND RESTORE MARINE AND FRESHWATERS ECOSYSTEMS AND BIODIVERSITY

PREVENT AND ELIMINATE POLLUTION OF OUR OCEANS, SEAS AND WATERS

MAKE THE BLUE ECONOMY CARBON-NEUTRAL AND CIRCULAR



Support effective water management through a digital knowledge system with a Digital Twin Ocean and improved environmental monitoring, forecasting and "what if scenarios" of ocean health.



Create a network of lighthouses at sea and river basin scale to implement the mission and expand the networks of marine protected areas;



Establish an EU-wide 'Blue Parks' initiative to provide new restoration and conservation opportunities;





European Digital Twin Ocean - EDITO

Connecting the European Assets





Contractual and Formal situation



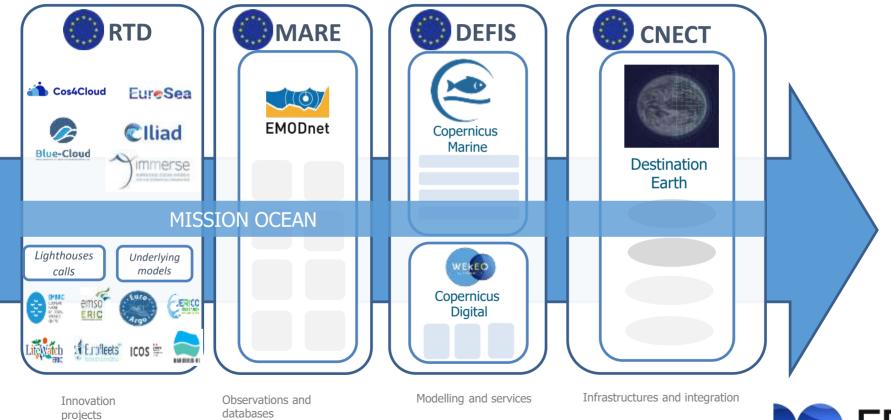
EU Public Infrastructure for the European Digital Twin Ocean [HORIZON-MISS-2021-OCEAN-IBA-01]

- Grant to identified beneficiaries, MOi & VLIZ representing CMEMS and EMODnet
- Budget: 2,999,850.00 €
- Agenda: start October 1st, 2022
 - Kick-Off Meeting: November 2022
 - Intermediate Review: January 2024
 - Final review: October 2024





Under the MISSION OCEAN, EDITO is made in collaboration with 4 EU DGs



EDITO

Connecting the European Assets





EDITO provides an architectural basis for the interconection of assets





EDITO will set up a federated data lake





This data lake will enable seamless access to the whole EMODnet and CMEMS data





In addition EDITO infra will set-up a processing engine





The processing engine will allow to launch models, AI Machine Learning, Hybrids models and applications





Federative, inclusive and open concept







16

ENODRET



Socioecology Marine Spa-

ENGINE

÷.,

Ê.

DATA LAKE



11120

0.02



Technical architecture of EDITO



Technical Architecture

User interfaces Data lake CIliad VRE (Co-workspace, **EureSea** IDE, Exploration, **3D** viewers WEKEO Dashboards) EUROPEAN OPEN SCIENCE CLOUD Blue-Cloud EMODnet API Citizen data Thematic or regional DaaS Data access **Quality Control** Twins, External virtual Governance, management, versioning, cataloguing labs API API DTO digital infrastructure Core underlying **On-demand** PaaS Collaborative MaaS What-if scenarios Modelling toolkit models modelling platform Orchestration, pipeline, workflows, scheduling, observability Cloud nativity, Elasticity, User management laaS **Cloud computing** HPC/EOSC HPC VLIZ Twin Ocean