

EDITO-Infra: Empowering Open Science & Digital Twins in the Marine Domain



EDITO-Infra: The main aim of the “EU Public Infrastructure for the European Digital Twin Ocean (**EDITO-Infra**)” project is to build the “backbone” public infrastructure for the EU Digital Twin of the Ocean (**EDITO**), which will be an EU public infrastructure on which local digital twins of the Ocean will be able to be developed and run by, or for, a large variety of users.

Integrating a wide range of existing and new and alternative data sources, EDITO will combine next generation ocean modelling, Artificial Intelligence (AI) and HPC, developing interactivity and transforming the knowledge-sharing paradigm. It will leverage technology to create a digital replica of the ocean, allowing to, for example, test the effects of climate change scenarios and man-made pressures on the ocean climate system, as well as the effectiveness of mitigation and adaptation plans.

The EDITO platform will provide marine researchers, specifically data scientists and modelers, with access to data, tools, computing power, and a co-working environment to engage in open science, enabling them to share resources with other experts, i.e., software developers and programmers, to develop applications and solutions to address Ocean challenges, free from the restrictions of poor data or high computing costs.

SERVICE ECOSYSTEM & MARKETPLACE

Community & Market Driven

EDITO-Infra is building the core infrastructure of the EU DTO for faster, better, more accurate Ocean insights.

EASY ACCESS TO A TRUSTED, CURATED CATALOGUE OF HIGH-QUALITY OCEAN DATA

DATA SCIENTIST

SAVE TIME AND MONEY USING FAST ON-DEMAND COMPUTING

OCEAN MODELER

OPEN-SOURCE, CLOUD-NATIVE TOOLS FOR SEAMLESS DATA WORKFLOW

SOFTWARE DEVELOPER

INNOVATION ECOSYSTEM & MARKETPLACE

Public Funding & Venture Capital Driven

Fast on-demand computing

COMPUTING CLUSTER
DATA ORCHESTRATOR PROCESS REGISTRY



DATA SCIENTIST

“ I need to harvest data to produce a report of Marine Environmental Indicators for the city council. With **EDITO**, I can easily combine satellite and in-situ marine data and process it to generate my results, with confidence. ”

PROJECT MANAGER

“ What is the optimal placing for my aquaculture cages? ”

POLICY ADVISOR

“How close are we to delivering SDG14 in the Mediterranean?”

CITIZEN

“Will my property be affected by floods in the future?”

DECISION SUPPORT TOOLS

Governance, policy & reporting
Operational research & blue economy applications
ESG-tech & Ocean-tech
Citizen science & initiatives



The EU Digital Twin of the Ocean will host a thriving ecosystem of community & market driven applications and services in support of societal needs, leveraging the capabilities of EDITO core infrastructure.

Add & use your own data, models, and tools.
Build your applications & services.
Engage to inform future requirements.

EXPLORE · CREATE · CONTRIBUTE

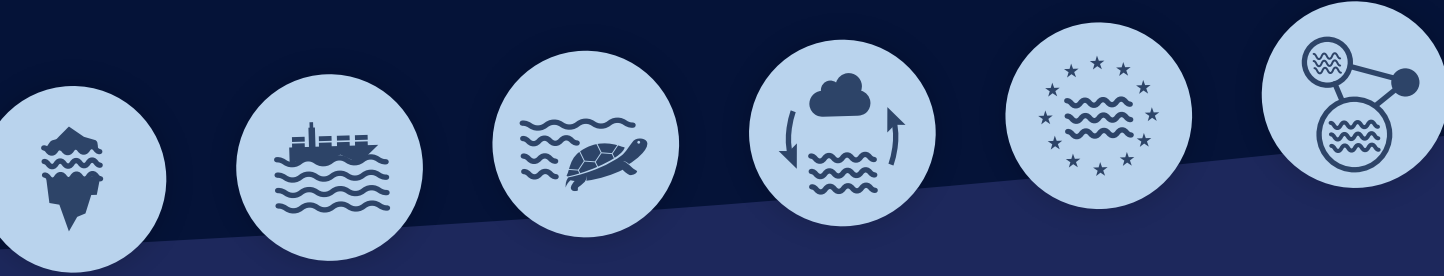
Services

On-demand data science tools and Ocean models
Cloud & HPC computing resources
On-demand processes for “what-if” scenarios

ENGINE

EDITOInfra

DATA LAKE



CLOUD-NATIVE STANDARDS & OPEN SOURCE SOFTWARE



DIGITAL TWINS

- Baltic & North Sea Lighthouse
- Mediterranean Lighthouse
- Atlantic & Arctic Lighthouse
- Horizon Europe projects
- Relevant initiatives by Environmental Research Infrastructures
- Local, national and regional digital twinning initiatives

A trusted, curated catalog of high-quality Ocean data

DATA CATALOG DATA STORAGE



SOFTWARE DEVELOPER

“ I am building a software application to assess the risk of floods in coastal properties across Europe. With **EDITO**, I can create a workflow of selected climatology data that automatically feeds into my APP. ”



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