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Description

EDITO-Model Lab will prepare the next generation of ocean models, complementary to Copernicus Marine Service to be integrated into the EU public infrastructure of the European Digital Twin Ocean (EDITO) that will ensure access to required input and validation data (from EMODnet, EuroGOOS, ECMWF, Copernicus Services and Sentinels satellite observations) and to high-performance and distributed computing facilities (from EuroHPC for HPC and other cloud computing resources) and that will be consolidated under developments of Destination Earth (DestinE).

The objective is to make ocean knowledge available to citizens, entrepreneurs, policymakers, decision-makers and scientific experts alike, thus enabling them to become partners in knowledge generation, explore desirable futures and develop ocean management scenarios (and assemble their own twins), with the overarching goal of ensuring a safe, healthy and productive ocean.

As an interactive and user-driven initiative, EDITO-Model Lab will deliver a Virtual Ocean Model Lab (VOML), including

(1) a core model suite including global high-resolution models and coastal configurations,

(2) downstream user toolkits and

(3) a developer s toolkit for a sustainable ocean.

The VOML will be an interactive and co-development environment to operate models. EDITO core model suite will be based on modelling and simulation software, artificial intelligence (AI) algorithms and specialised tools to form a new service capacity for accessing, manipulating, analysing and understanding marine information. Intermediate and downstream stakeholders will find digital tools, data and information for focus applications (FA) that refer to the Mission Ocean Lighthouses (MOLs) and the sustainable Blue economy, including what-if scenarios to find solutions to natural and man-induced hazards.

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