

Unravelling the European digital twin of the ocean



June 2023 marked a significant milestone in ocean research and knowledge sharing as the second edition of the European Digital Ocean Forum took place. The forum presented a groundbreaking initiative called the European Digital Twin Ocean (EDITO), which had been unveiled by European Commission President von der Leyen at the One Ocean Summit in Brest in February 2022.

EDITO aims to bridge the gap between ocean research and society, revolutionizing access to ocean knowledge and empowering citizens, entrepreneurs, scientists, innovators and policymakers alike. At its core lies a comprehensive understanding of the ocean and marine ecosystems, offering high-resolution, multi-dimensional descriptions of various aspects such as the physical, chemical, biological, socio-ecological and economic elements.

Unlocking solutions with ocean data

This visionary platform harnesses the most advanced technology to provide new interactive ocean data, advanced analytical support for decision-making, and innovative visualization and simulation tools. Its ultimate goal is to drive the restoration of marine and coastal habitats, foster a sustainable blue economy, and support climate change adaptation and mitigation efforts.

To achieve this ambitious vision, the European Commission has invested approximately €10 million in developing the core infrastructure and modelling suite of [EDITO](#), with the EDITO-Infra and EDITO-Model Lab research and innovation projects leading the way. The platform is designed as a public service and a public good, supplemented by the €19 million Iliad project, funded under the Green Deal Call, which developed pilot applications for the EDITO concept.

User-driven approach

EDITO-Infra and EDITO-Model Lab work collaboratively to establish the operational infrastructure of a thriving digital ecosystem. With several other research projects actively contributing to EDITO's capabilities, the aim is to achieve an operational demonstration of EDITO by 2024, advancing our ability to comprehend, manage and protect our ocean and its resources.

Beyond policymakers and ocean researchers, EDITO promises to democratize ocean knowledge through a user-driven approach. Local authorities managing coastal development, students learning about marine ecosystems, and curious citizens seeking to understand climate change's impact on the ocean and seas will all benefit from this innovative platform.

The Explore, Create and Contribute capacities of EDITO were defined during the [European Digital Ocean Forum](#), which took place on 15 June in Brussels. With the ability to dive into a wealth of data and information, simulate scenarios and add personal data and services to the Digital Twin Ocean platform, EDITO is set to captivate minds and foster a deeper appreciation of the ocean's vital role in our lives.



In the vast Atlantic Ocean, Faial Island holds strategic significance within the Azores archipelago, being situated at Europe's westernmost edge.