Platforms, Digital Infrastructure & Interoperability

Thu. Nov 12, 2026 2:00 PM - 3:30 PM JST | Thu. Nov 12, 2026 5:00 AM - 6:30 AM UTC | Room B (Kujaku) (2F)

Oral B2 Digital Twin Infrastructure and Operational Services

Chair: Avichal Mehra, Shintaro Momose

2:15 PM - 2:30 PM JST | 5:15 AM - 5:30 AM UTC

[Z-NE6gfo-02] EDITO: Building the Infrastructure of the European Digital Twin Ocean

*Elin V. P. Persson[1] (1. Mercator Ocean international (France))

The European Digital Twin Ocean is a flagship initiative of the European Commission designed to transform ocean knowledge into actionable intelligence through advanced digital technologies, enabling evidence-based decision-making for policy, research, innovation, and societal engagement.

EDITO is the core infrastructure underpinning the European Digital Twin Ocean. Built upon established European assets, including the Copernicus Marine Service and the European Marine Observation and Data Network (EMODnet), EDITO integrates marine observations, forecasts, models, and thematic datasets into a common digital environment supporting data discovery, visualisation, application development, and scenario exploration. By combining high-resolution observation data and forecasts with cloud computing resources, collaborative development environments, and advanced analytical tools, EDITO enables the development of digital twin applications capable of supporting simulations, forecasting, and interactive “what-if” scenario analysis.

Following the initial development phase of the platform (2022–2025), EDITO2 (2025–2028) focuses on strengthening both the technical infrastructure and the user community. Key developments include enhanced data onboarding and validation processes, expansion of the EDITO data lake to incorporate biogeochemical, socio-economic, and citizen science data, and the development of more accessible user interfaces and visualisation tools.

Through open calls, co-creation activities, and dedicated user support services, EDITO fosters broad participation from the scientific and innovation communities. Through its open architecture and interoperable services, the platform supports international collaboration and interoperability across the growing ecosystem of ocean digital twins, contributing to activities and objectives pursued within the framework of the Digital Twins of the Ocean (DITTO) programme. Looking towards 2030, EDITO aims to deliver a fully operational and sustainable European Digital Twin Ocean that serves as a reference infrastructure for digital ocean solutions and democratised access to ocean knowledge in support of a healthy, productive, and resilient ocean.

© 2026 DITTO Summit Local Organising Committee. All rights reserved.