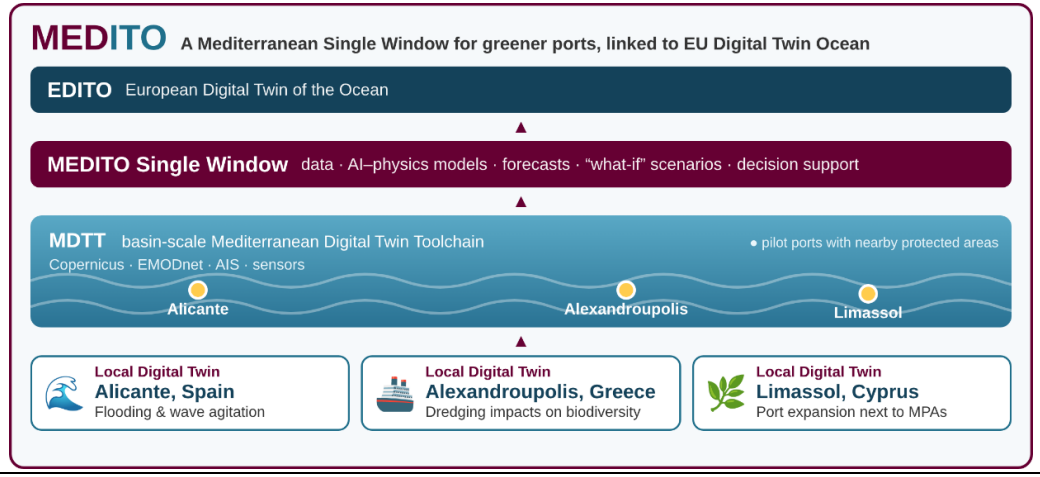
2026	MEDITO: The Mediterranean Single Window for the European Digital Twin Ocean (EDITO) – Ports Enviro-Management						
Country	**Contract value (€)**	**% by Epsilon**	**Staff # provided**	**Client**	**Origin of funding**	**Date (start/end)**	**Consortium Members**
Malta	**4,648,412.50**	15.06% (€700,000) Coordinator	3 (110 PM)	European Commission	Horizon Europe Mission Ocean Innovation Action	36 months (start TBC)	EPSILON (coord.), NTUA, MENSIS, UOA, InnovativEuro, HES-SO, OLA, UNIME, GME, DANAOS, UCY, APA, HPA

The Project (2026)

MEDITO (The Mediterranean Single Window for the European Digital Twin Ocean – Application: Ports Enviro-Management) is a 36-month Horizon Europe Innovation Action under the Mission "Restore our Ocean and Waters" (HORIZON-MISS-2026-03-OCEAN-05). The Mediterranean hosts more than 450 commercial ports, over one-third of them in coastal zones influenced by Marine Protected Areas (MPAs), where shipping and port infrastructure interact with vulnerable ecosystems through pollution, underwater noise, dredging, coastal erosion and climate risks.

MEDITO aimed to develop, deliver and integrate into EDITO, the operational core of the EU Digital Twin of the Ocean, a Mediterranean "Single Window": an interoperable, data-agnostic framework giving unified access to ocean data, Digital Twins, hybrid physics–AI models, indicators, forecasts and "what-if" scenarios for decision support. Its Mediterranean Digital Twin Toolchain (MDTT) links basin, coastal and port-scale models, combining physical simulations with AI surrogate models, data assimilation and calibrated uncertainty. Local Digital Twins are configured on three data levels, from open Copernicus and EMODnet data to port, AIS and site-specific sensor data.

The approach was aimed to be validated at three port–MPA pilots: Alexandroupolis (Greece; dredging impacts on biodiversity), Alicante (Spain; compound flooding and wave agitation) and Limassol (Cyprus; port expansion next to protected areas). A human-supervised Decision Support System helps port operators, MPA managers and authorities weigh environmental impacts against operational needs. Validated solutions will be upscaled across the Mediterranean and sustained through a European Economic Interest Grouping (EEIG), evolving with EDITO to 2035.



Services to be provided by EPSILON

EPSILON is the Coordinator of MEDITO (110 person-months), leading project management (WP1) and contributing to all technical work packages with its expertise in environmental modelling, Earth observation and decision-support systems. Its services include:

- **Project coordination (T1.1):** consortium management, reporting, contractual and financial administration and liaison with the European Commission.
- **KPIs, QA/QC & risk (T1.4):** KPI monitoring system, quality assurance and a live risk register covering technical, AI, data, pilot and regulatory risks.
- **MED Living Lab (T2.4):** establishment of the MEDITO Living Lab and its co-design methodology with ports, MPA managers and authorities, engaging stakeholders across the three pilot sites.
- **Basin forecasting (T3.4):** operation of the MDTT as the basin-scale intelligence layer, with macro-to-micro downscaling and data assimilation feeding the Local Digital Twins.
- **AI & decision support (WP4–WP7):** contribution to AI models, error control, coastal hazard modelling, the Decision Support System and EDITO integration.
- **Pilot upscaling (T8.4):** lead of pilot impact assessment and Local-to-MED upscaling validation, including transferability and uncertainty analysis, and packaging validated workflows as MED-wide Single Window services.
- **Exploitation & EEIG (T9.3):** exploitation plan, business model and set-up of the EEIG for post-project operation, so that MEDITO is maintained and evolved with EDITO to 2035.
- **EU synergies (T9.4):** cooperation with EDITO, EMODnet, Copernicus Marine and Mission Ocean initiatives, an international conference and a book.

Key staff: Prof. M. Bonazountas (coordinator), C. Karadimitriou, N. Kalkana, Jason Markatos