ILIAD Discussion (PDII)

Fri. Nov 13, 2026 2:00 PM - 3:30 PM JST | Fri. Nov 13, 2026 5:00 AM - 6:30 AM UTC | Room C (201) (2F)

Oral C5 A Federated Ocean-Earth Digital Twin Ecosystem: Connecting EDITO, Destination Earth and Open Standards

Chair: Bente Lilja Bye, Marco Oliveira

2:00 PM - 2:05 PM JST | 5:00 AM - 5:05 AM UTC

[cMFDCOEL-01] Intro: From project twins to an ecosystem of twins

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Digital Twins of the Ocean are moving from individual research demonstrators towards operational, distributed and increasingly interconnected infrastructures. The completion of the ILIAD Digital Twins of the Ocean project provides an opportunity to examine which components of local and thematic digital twins can persist, travel between infrastructures and contribute to a wider ecosystem of Digital Twins of the Earth.

ILIAD demonstrated a federated, standards-based approach encompassing local and thematic digital twins, interoperable data and services, semantic harmonisation, portable analytical workflows and links to the European Digital Twin Ocean infrastructure. The challenge now is to move from interoperability within individual initiatives towards interoperability between digital-twin ecosystems.

This session connects ILIAD results and their continuation with EDITO, the Destination Earth Digital Twin Engine, IEEE P3501 and related OGC standardisation, and emerging European initiatives including SEADOTs and EOSC-Marine. Short contributions will examine semantic interoperability, portable application workflows, infrastructure federation, cross-domain Digital Earth standards and pathways for onboarding local and regional twins into persistent infrastructures.

Rather than presenting individual projects, the session asks a common question: **what is the minimum interoperability contract that allows a local Digital Twin of the Ocean to become a reusable component of a European and ultimately global federation of Digital Twins?** The concluding discussion will identify practical requirements and opportunities for collaboration between DITTO, European initiatives and international standards communities.

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