

eosc | Blue-Cloud2026

Third Federation Workshop

5-6 November 2025, Brussels [Belgium]



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 EOSC | Blue-Cloud2026

Blue-Cloud 2026 as a candidate node for the EOSC Federation

Introduction - Sara Pittonet Gaiarin, Blue-
Cloud Coordinator

5-6 November 2025, Brussels [Belgium]



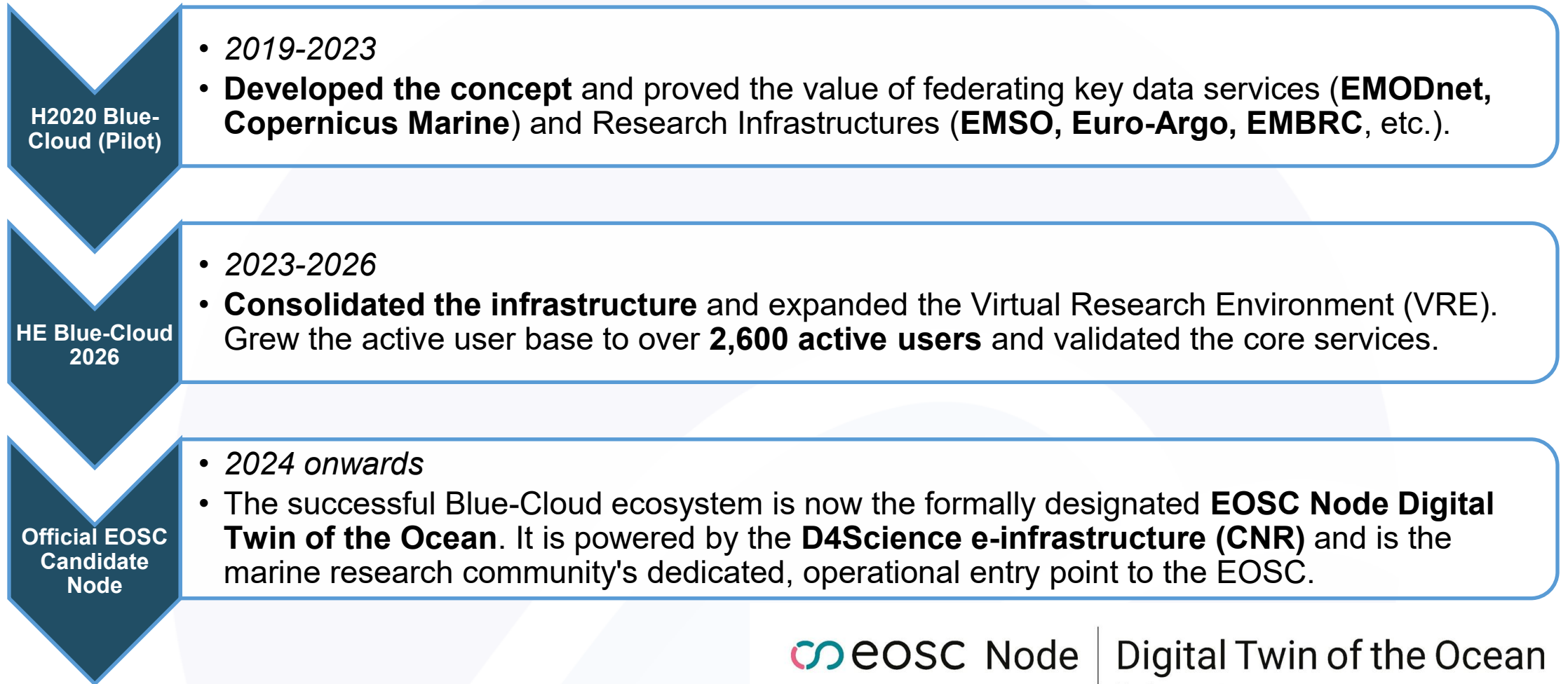
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Target audience: Scientific partners, data repositories, RIs representatives

Chair: Sara Pittonet Gaiarin, Trust-IT Services

14:30 - 15:00	<p>Towards a network of Trusted Digital repositories: opportunities for the Blue Data infrastructures from the EDEN and FIDELIS projects</p> <p>Jan Meijer (Sikt), Roxanne Wyns (KU LEuven)</p>
15:00 - 16:15	<p>Marine thematic services for EOSC</p> <p>Overview of Blue-Cloud 2026 Virtual Labs & Workbenches, followed by Short demos presenting the Blue-Cloud Virtual Labs, the Workbenches and their services for the audience gathered for the EOSC Symposium, with insights from the real-case scenario ideas and challenges encountered in the recent Blue-Cloud 2026 hackathon, followed by collaborative discussions.</p> <p>Nydia Catalina Reyes Suarez (OGS), Francesco Palermo (CMCC), Simona Simoncelli (INGV), Joao Paulo do Nascimento Vitorino (IH), Sebastian Mieruch (AWI), Julien Barde (IRD)</p>
16:15 - 16:30	Q&A & discussion

Our Node is the **evolution of a proven ecosystem** built on six years of strategic investment and strong community engagement.



The Ocean doesn't work in silos — Why should we?" — *Nicolas Segebarth, DG RTD*

The European Mandate: Unifying Digital Ecosystems

- **EOSC Federation:** The horizontal, trusted **System of Systems** for all European Research.
- **EU Mission: "Restore our Ocean and Waters"** – The clear, policy-driven societal objective.
- **European DTO / EDITO:** The official, operational infrastructure for marine science.

The Challenge

- Ensuring these powerful strategic pillars are technically and operationally connected to prevent new, larger silos between the DTO Core and the long-tail scientific community.

Our Position

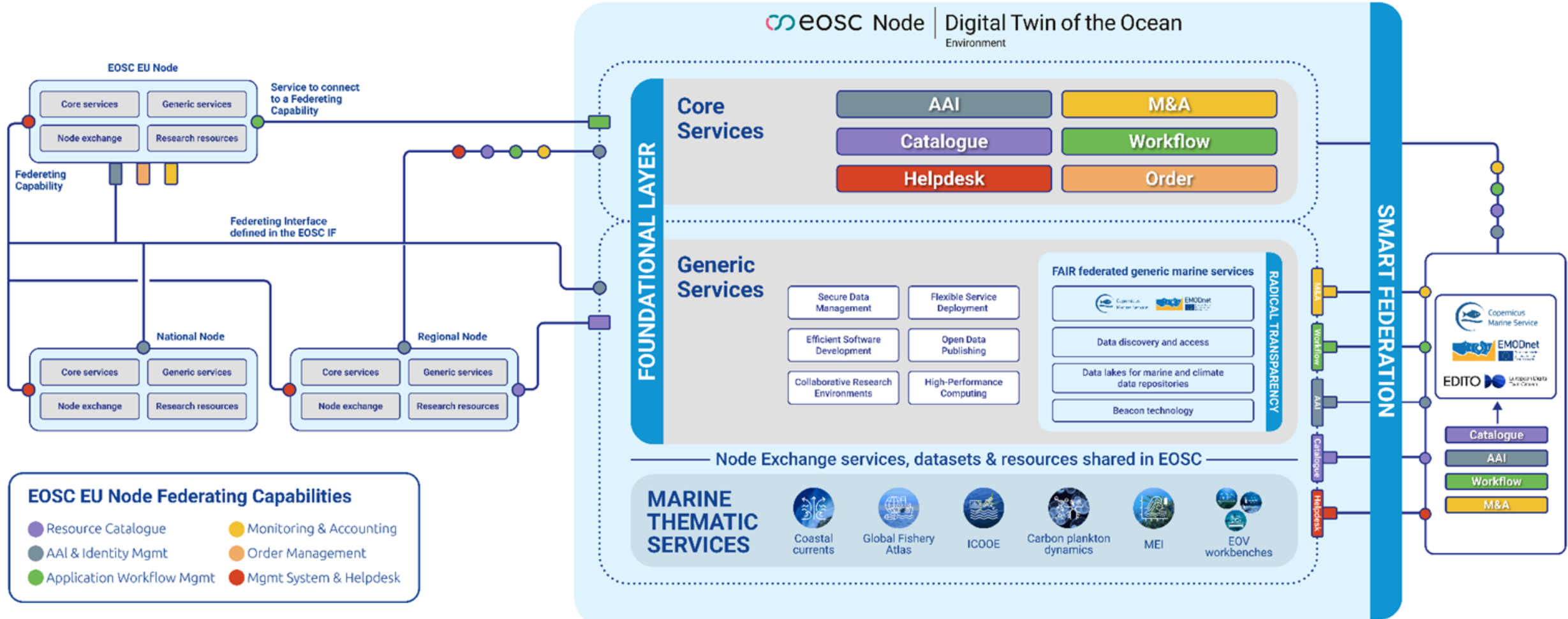
- The **EOSC Node Digital Twin of the Ocean** is the strategic and operational bridge. It promotes dedicated mechanisms to federate marine research capacity into the EOSC ecosystem.

A Thematic Node for Empowered Researchers: Blue-Cloud transforms marine research by providing an integrated environment built on EOSC principles

- 🌐 **FAIR Federated Data Services:** We provide harmonised data collections with advanced subsetting, semantic enrichment, and provenance tracking, so researchers get exactly the data they need with full trust.
- 🖥️ **Integrated Virtual Research Environment (VRE):** Researchers have direct access to a suite of powerful tools within our Virtual Labs, including:
 - Interactive computing (Jupyter Notebooks, RStudio).
 - Reproducible workflows (Galaxy).
 - Containerization and application management pipelines.
- 🌍 **EOSC-Ready Capabilities:**
 - Federated AAI: Full integration and alignment with EOSC AAI.
 - Resource Catalogue: Our service catalogue is structured for immediate federation with the EOSC Exchange (EEN).
 - Operations: Professional, FitSM-aligned Helpdesk and Monitoring.



Researchers are empowered with trusted, interoperable tools and seamless access to data



Real-World Cross-Disciplinary Use Case

- A researcher can now seamlessly combine aggregated in-situ and satellite data from key European services like **EMODnet** and **Copernicus Marine** with specialized observation data from Research Infrastructures like **Euro-Argo**, carbon data from **ICOS**, and deep-sea data from **EMSO**.
- They can process this integrated dataset using interoperable workflows in a Blue-Cloud Virtual Lab, with the results directly contributing to the **European Digital Twin of the Ocean (EDITO)** and being shared openly via EOSC.

Supporting a European Mission

- By providing the essential tools and FAIR data infrastructure, Blue-Cloud directly contributes to the ambitious goals of the **EU Mission: "Restore our Ocean and Waters"**.

A Blueprint for Other Thematic Communities

- Our approach serves as a proven model for how other scientific domains can federate their specific services and data into the EOSC ecosystem, extending impact well beyond the marine community.

Makes complex, cross-domain science simple



The EOSC Federation accelerates scientific discovery and generates tangible societal impact

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