Blue-Cloud 2026 and CLIMAREST Strengthen Collaboration through Memorandum of Understanding

The Blue-Cloud 2026 and CLIMAREST projects have formalised their collaboration with the signing of a Memorandum of Understanding (MoU) on 21 November 2024. This agreement reflects their shared commitment to advancing research and innovation in marine and coastal ecosystem resilience, restoration, and sustainable management.

Blue-Cloud 2026, coordinated by the Institute of Information Science and Technologies (CNR-ISTI) of the Italian National Research Council, aims to contribute to a federated European ecosystem that provides easy and open access to FAIR and open data, alongside analytical services, to support research in oceans, seas, coastal, and inland waters. Its objectives include building a robust technical infrastructure, creating virtual laboratories for marine societal challenges, and contributing to the public infrastructure of the European Digital Twin of the Ocean initiative, EDITO.

CLIMAREST, coordinated by SINTEF Ocean AS, is also funded under Horizon Europe. The project integrates scientific expertise to create tools and protocols that address marine and coastal ecosystem restoration and enhance climate resilience, particularly in the Arctic-Atlantic basin.

Objectives of the MoU

This collaboration will focus on several key areas of mutual interest, including:

- **Data Integration**: CLIMAREST will contribute biodiversity monitoring and human impact data to the EMODnet portal, enriching datasets that Blue-Cloud 2026 federates.
- **Virtual Research Environments (VREs)**: CLIMAREST will use Blue-Cloud's VREs to undertake pilots, with plans to explore further technical integration and service deployment.
- **Knowledge Exchange**: The projects will share expertise to inform Blue-Cloud's strategic roadmap and contribute to CLIMAREST's holistic toolbox development.
- **Community Engagement**: Opportunities for joint participation in webinars, hackathons, and training activities will foster wider collaboration and knowledge dissemination.

Both projects aim to enhance the utility of marine and coastal data for policymakers, researchers, and practitioners. By combining efforts, they seek to advance tools and protocols that support ecosystem restoration and sustainable practices.

What's next

As a key next step, CLIMAREST will leverage its Virtual Laboratory, built on the Blue-Cloud Virtual Research Environment. The **CLIMAREST Marine Restoration Lab** will leverage Blue-Cloud's JupyterHub environment to host a series of interactive notebooks. These notebooks will feature a combination of text, interactive widgets for toggling through pre-created scenarios, and dynamic visualisations such as interactive figures. To ensure an optimal solution, the team will create local prototypes that allow to finalise libraries and tools through JupyterHub and R Shiny.

The collaboration between Blue-Cloud 2026 and CLIMAREST has been strong since the very beginning of the Blue-Cloud project, and this MoU serves to formalise their partnership. It provides a structured framework to strengthen joint efforts in advancing FAIR data practices. By establishing this formal agreement, both projects can take a more coordinated approach toward shared objectives, including improving data accessibility, enhancing technical interoperability, and driving innovation in marine science.