

Blue-Cloud 2026

Welcome & overview

17 March 2023

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Blue-Cloud2026 Scientific Coordinator

Sara Pittonet, Trust-IT (courtesy of)

A federated European FAIR and Open Research Ecosystem for oceans, seas, coastal and inland waters

Blue-Cloud 2026 **builds upon the pilot Blue-Cloud project** which established a pilot cyber platform, providing researchers access to multi-disciplinary datasets from observations, analytical services, and computing facilities essential for blue science.

Blue-Cloud 2026 aims at a further evolution of its **pilot ecosystem into a Federated European Ecosystem to deliver FAIR & Open data, analytical services, instrumental for deepening research of oceans, EU seas, coastal & inland waters.**

It develops a **thematic marine extension to EOSC** for open web-based science, & serves needs of the EU Blue Economy, Marine Environment and Marine Knowledge agendas.

HORIZON-INFRA-2022-EOSC-01 | RIA - Research and Innovation action
<https://cordis.europa.eu/project/id/101094227>

Project Information

Blue-Cloud 2026

Grant agreement ID: 101094227

DOI

[10.3030/101094227](https://doi.org/10.3030/101094227)

Start date

1 January 2023

End date

30 June 2026

Funded under

Research infrastructures

Total cost

€ 8 845 420

EU contribution

€ 8 845 420



Coordinated by

CONSIGLIO NAZIONALE DELLE RICERCHE

 Italy

Blue-Cloud 2026 Consortium

PROJECT COORDINATION OFFICE



A solid, multidisciplinary, committed team of **40** partners from 13 EU countries

Blue-Cloud Mission to 2030

Blue-Cloud will evolve as a key component of **Europe's FAIR marine digital knowledge ecosystem** to support the EU Green Deal and the UN Agenda 2030

It will offer to a flagship community of practice an *incubator for data analysis and modelling methods in support of applied research of the ocean, European seas, coastal and inland waters*:

- Making ocean & freshwater digital commons accessible to the wider scientific community via **EOSC**
- Supporting the development of analytical services and/or Digital Twins that add value to the core **European Digital Twin of the Ocean (EU DTO)** to inform policy making in the delivery of societal objectives



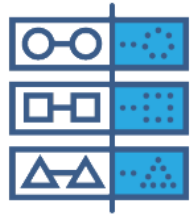
The Marine Thematic EOSC

Blue-Cloud 2026 aims at a further evolution of this pilot ecosystem into a **Federated European Ecosystem** to deliver FAIR & Open data and analytical services, instrumental for deepening research of oceans, EU seas, coastal & inland waters. It develops a **thematic marine extension to EOSC** for open web-based science, serving the needs of the EU Blue Economy, Marine Environment and Marine Knowledge agendas.





- **Blue-Cloud Data Discovery & Access service**, federating key European data management infrastructures, to facilitate users in finding and retrieving multi-disciplinary datasets from multiple repositories



- **Blue-Cloud Virtual Research Environment infrastructure** to provide a range of services and to facilitate orchestration of computing and analytical services for constructing, hosting and operating Virtual Labs for specific applications



- **Blue-Cloud Virtual Labs**, configured with specific analytical workflows to serve as **Demonstrators**, which can be adopted and adapted for other inputs and analyses

MISSION: To develop further the European federation of marine and inland water data management infrastructures & high quality services



A1. DD&AS

A FAIR compliant Data Discovery & Access Services > access to 10+ million open data sets & products by 13 major BDIs



A2. VRE

An Open Science Virtual Research Environment (VRE) federating multiple e-infrastructures > supporting Analytical Big Data Workbenches & V Labs



A3. EOVS

3 EOVS Workbenches for highly qualified data collections

3.000 DATA ANALYTICS SESSIONS PER MONTH - 5,000 HTC DATA ANALYTICS JOBS PER MONTH

A4. VLABS - FIVE DOMAIN-BASED VIRTUAL LABS



Coastal Ocean observations along Europe



Coastal currents from observations



Carbon-Plankton Dynamics



Marine Environmental Indicators



Global Fisheries Atlas



A7. COMMUNITY

- All EU countries engaged
- 3k+ engaged Blue-Cloud community users
- 5k+ followers across all the platforms
- 10+ External Stakeholders



OUTREACH

- 1 Blue-Cloud Hackathon
- 1 Blue-Cloud TV
- 18 Newsletter issues
- 11 Webinars on Blue-Cloud VRE, DDAS & EOVS Workbenches
- 3 Blue-Cloud Annual Impact Events
- 3 Ocean Literacy Webinars
- Videos & Interviews



A6. TRAINING ACADEMY & CATALOGUE

- 3 Online training course on Best Practices for FAIR data principles
- 3 Info session & course on the EOVS Workbenches
- 2 online webinars dedicated to the BlueCloud VRE
- 2 dedicated to the DDAS and the innovations introduced
- A series of training sessions on how to use the V Labs



POLICY

- Scientific papers & articles
- Restoring healthy oceans, seas, coastal & inland waters in Europe
- Strategic Roadmap 2030
- Cross-domain expansion factsheets
- Sustainability Business model

A5. ROADMAP



DTO Task Force

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WP2 “FAIR compliant Discovery and Access services for marine domains & beyond”

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Consiglio Nazionale delle Ricerche

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WP5 “Blue-Cloud VRE platform evolution and integration with EOSC resources and services”



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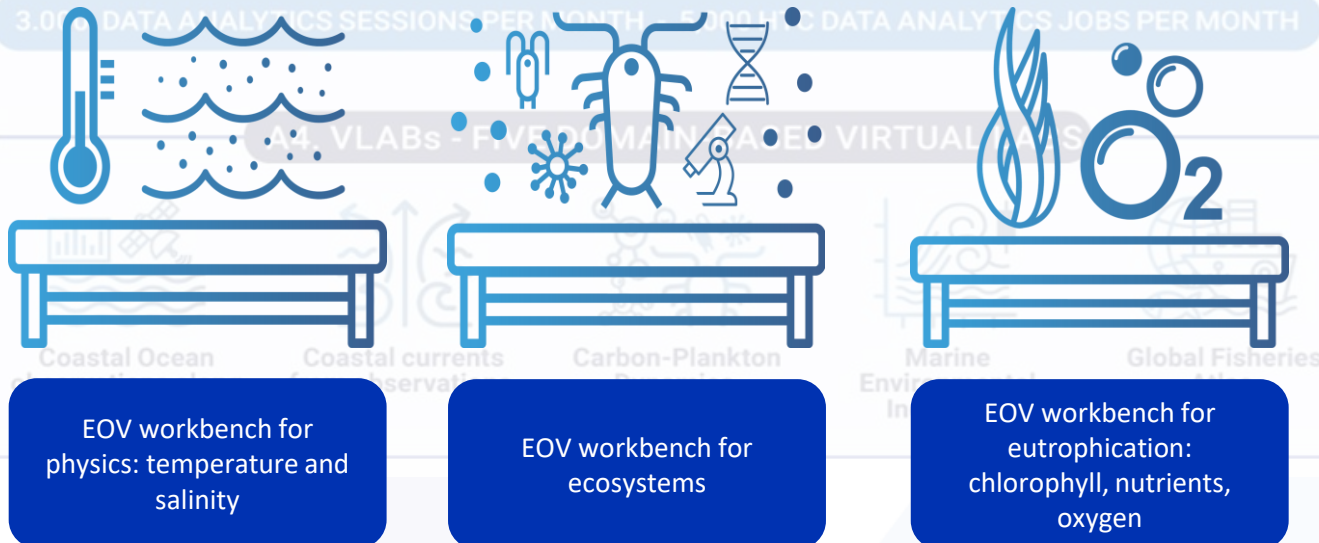
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WP3 “Developing and testing analytical Blue Cloud WorkBenches for generating highly qualified data collections (Essential Ocean Variables, EOv)



A3. EOvs
3 EOv Workbenches for highly qualified data collections



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WP4 “Blue-Cloud V Labs for demonstrating cross-domain web-based open science”

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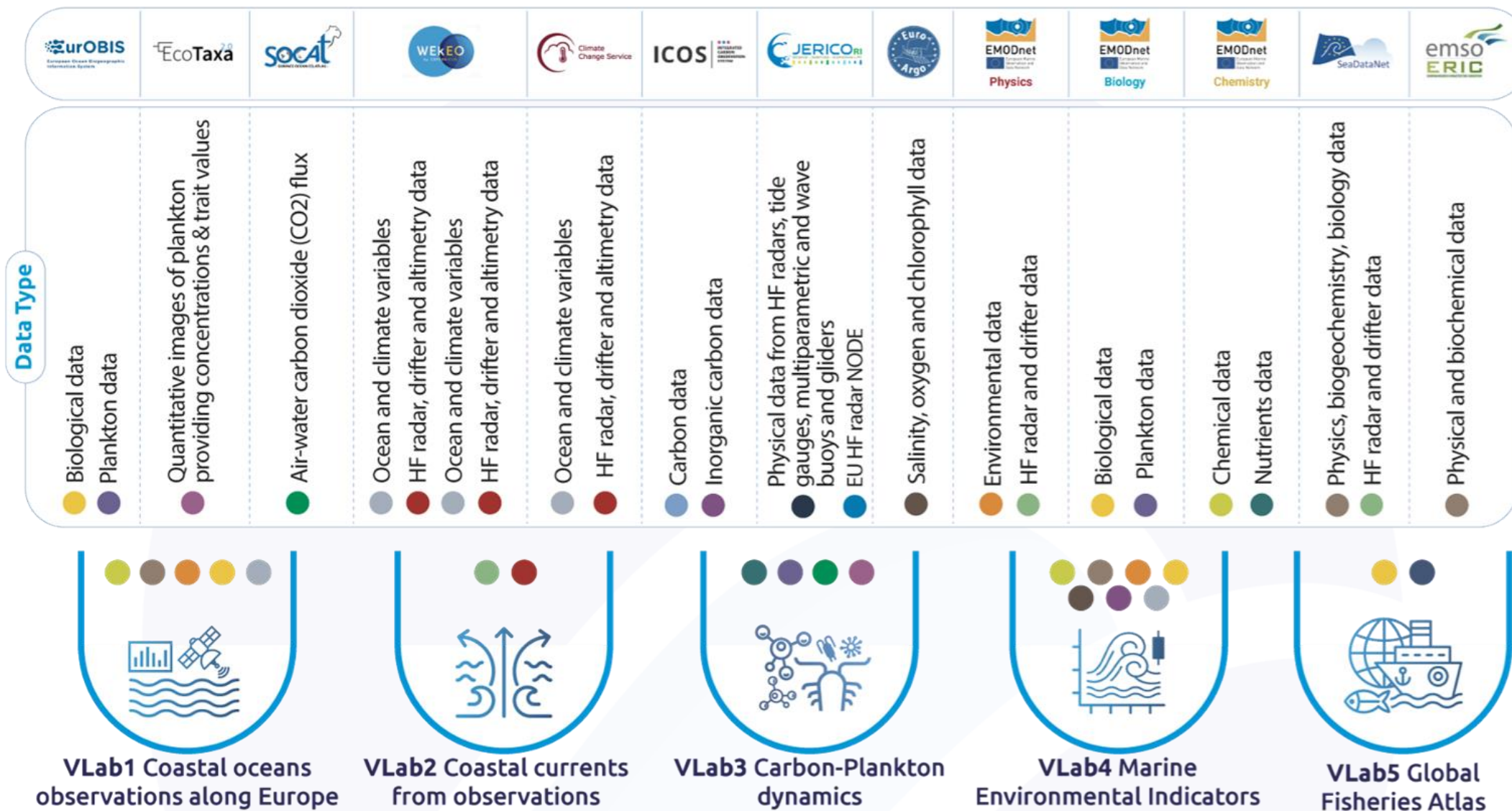
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Trust-IT Services
communicating to markets

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WP6 “Outreach, engagement, and education”



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WP7 “Exploitation, Strategic Roadmap to 2030 and Sustainability



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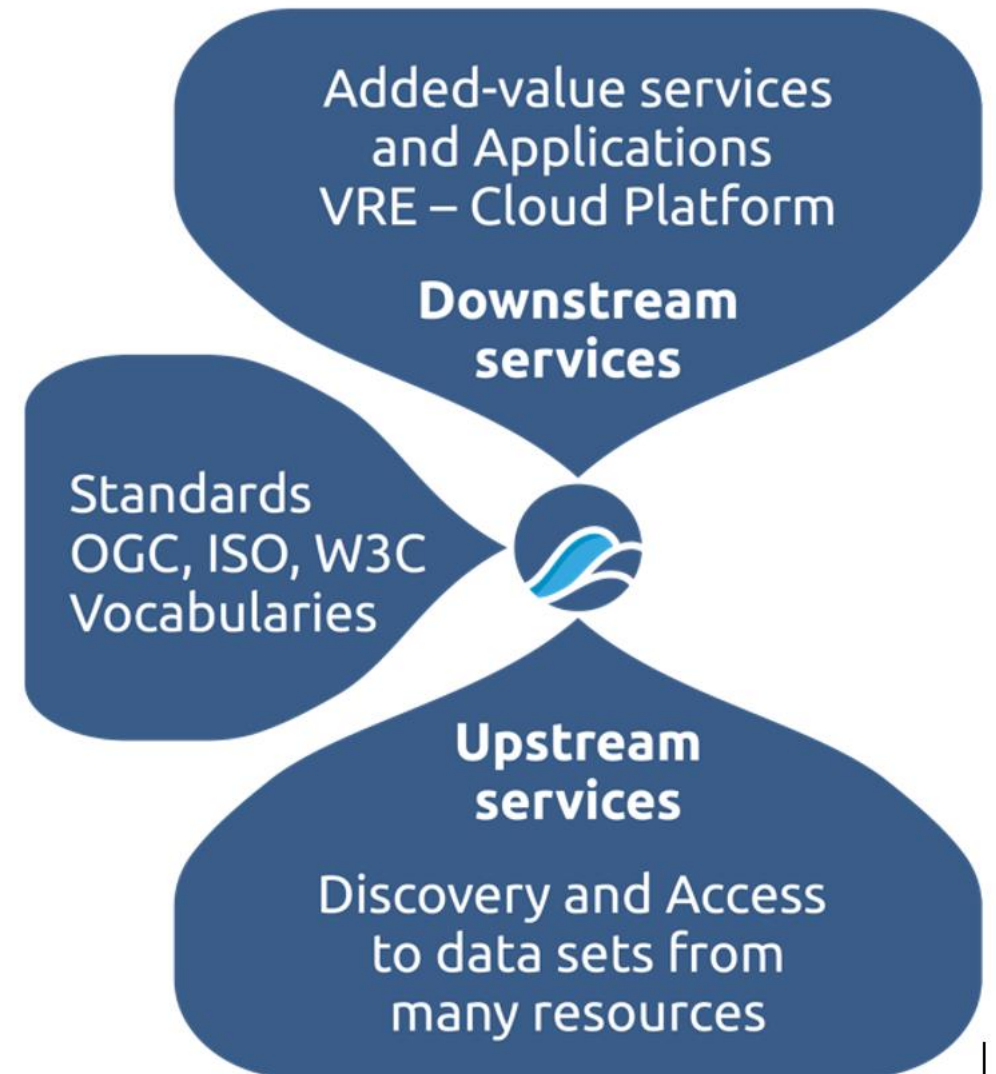


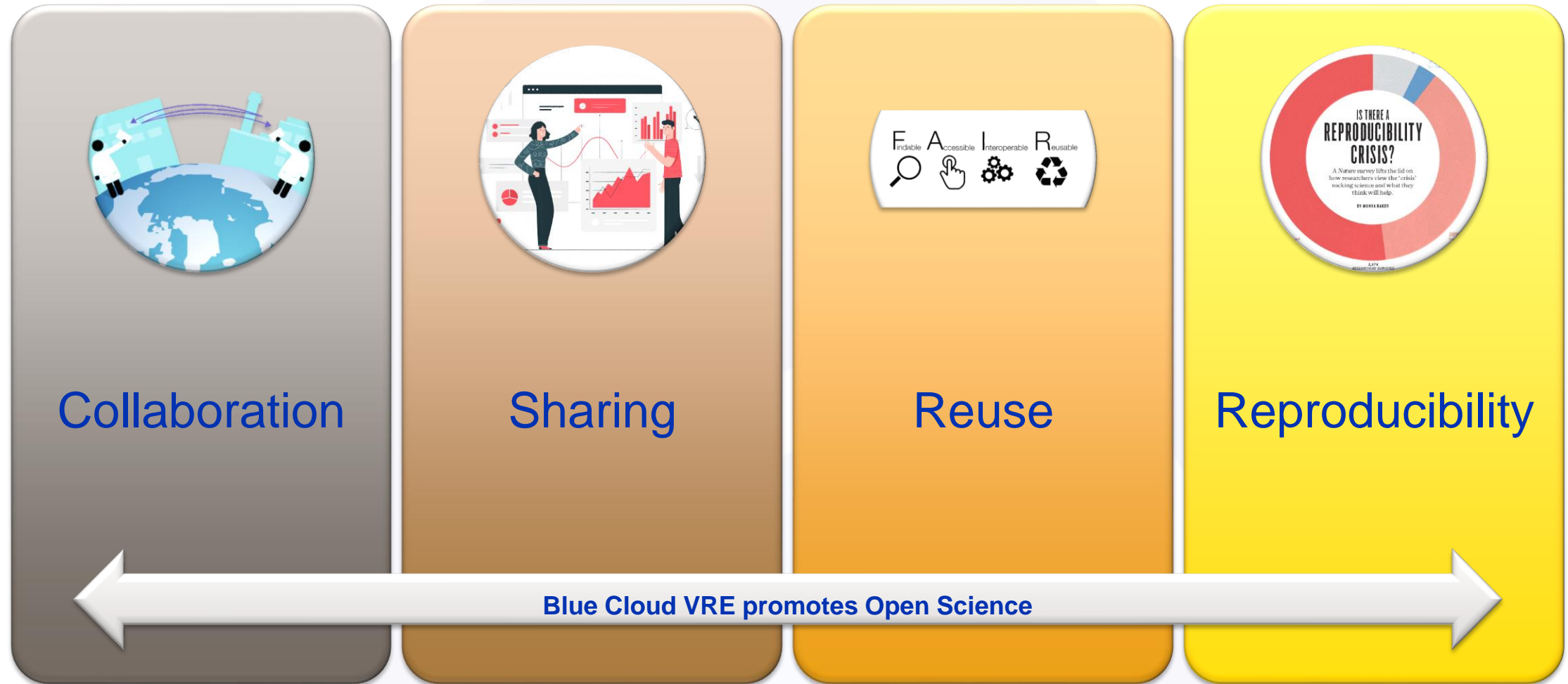
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Synergies will be put in place with a range of ongoing or soon to be started H2020 & Horizon Europe projects.



- Developing and deploying a Virtual Research Environment (VRE) with an array of services for configuring and running virtual labs for specific analytical workflows, use cases and demonstrators
- Applying common standards and interoperability solutions for providing harmonized metadata and data
- Developing and deploying harmonized discovery and access to established European marine data management and processing infrastructures





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blue-cloud.org



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Funded by
the European Union