

29 Sept – 02 Oct 2025

SEAFUTURE

La Spezia

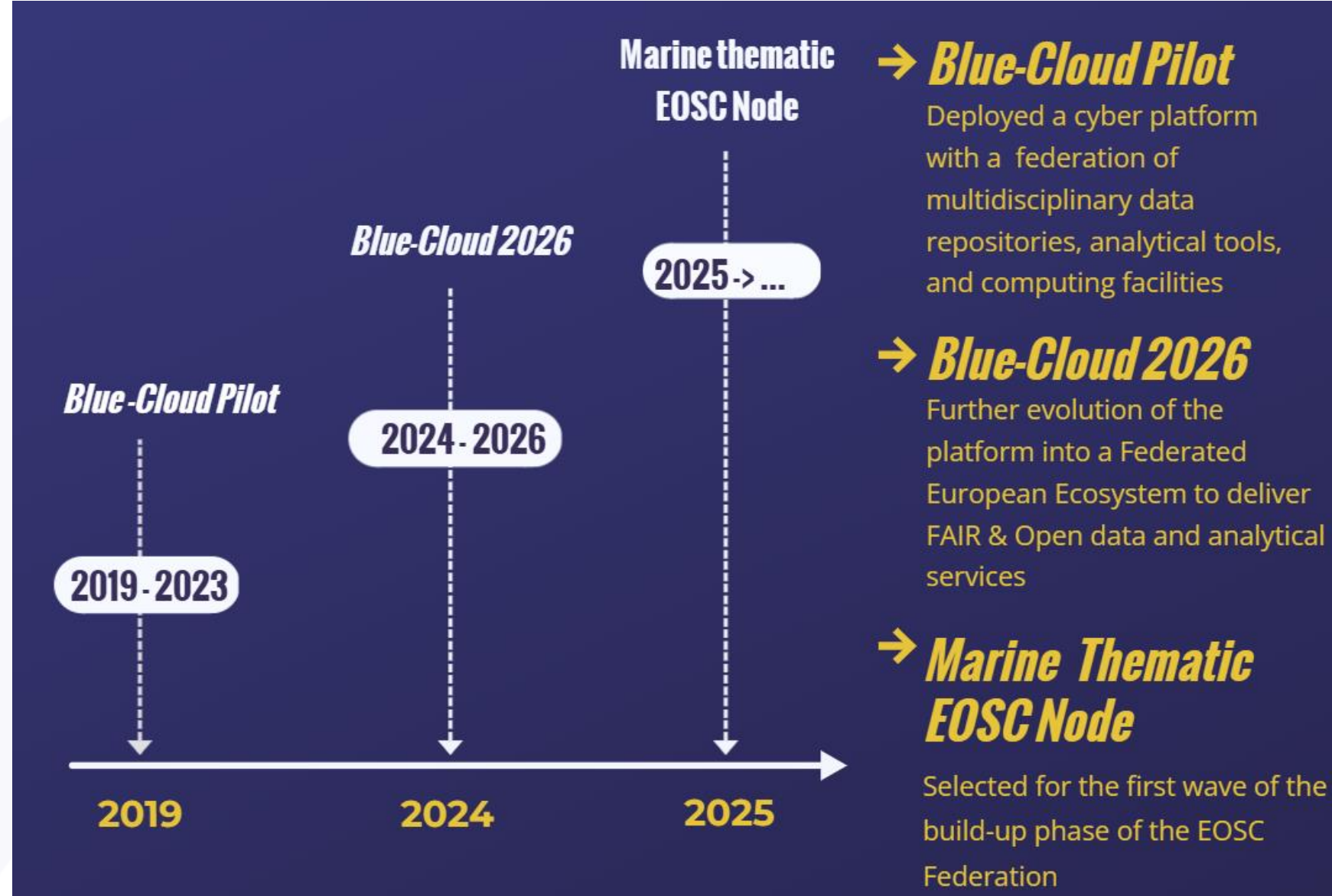
**Blue-Cloud: marine knowledge value chain
from observations to environmental indicators**

Presented by
Chiara Altobelli, OGS (Italy)

 **eOSC**

Blue-Cloud2026

- A federated European **FAIR web-based Research Ecosystem** for oceans, seas, coastal and inland waters;
- The extension of European Open Science Cloud (EOSC) for the marine domain.




Services

 **Data Discovery & Access Service (DD&AS)**

 **Virtual Research (VRE) Environment**

 **Blue-Cloud Catalogue**

Thematic Virtual Labs


Coastal Ocean observations along Europe


Coastal currents from observations


Carbon-Plankton Dynamics


Marine Environmental Indicators


Global Fisheries Atlas

Essential Ocean Variables Workbenches


Physics: temperature & salinity


Eutrophication: chlorophyll, nutrients, oxygen


Ecosystem-level EOVs

The **DD&AS** enables users to browse and download data from federated Blue Data management Infrastructures (BDIs).

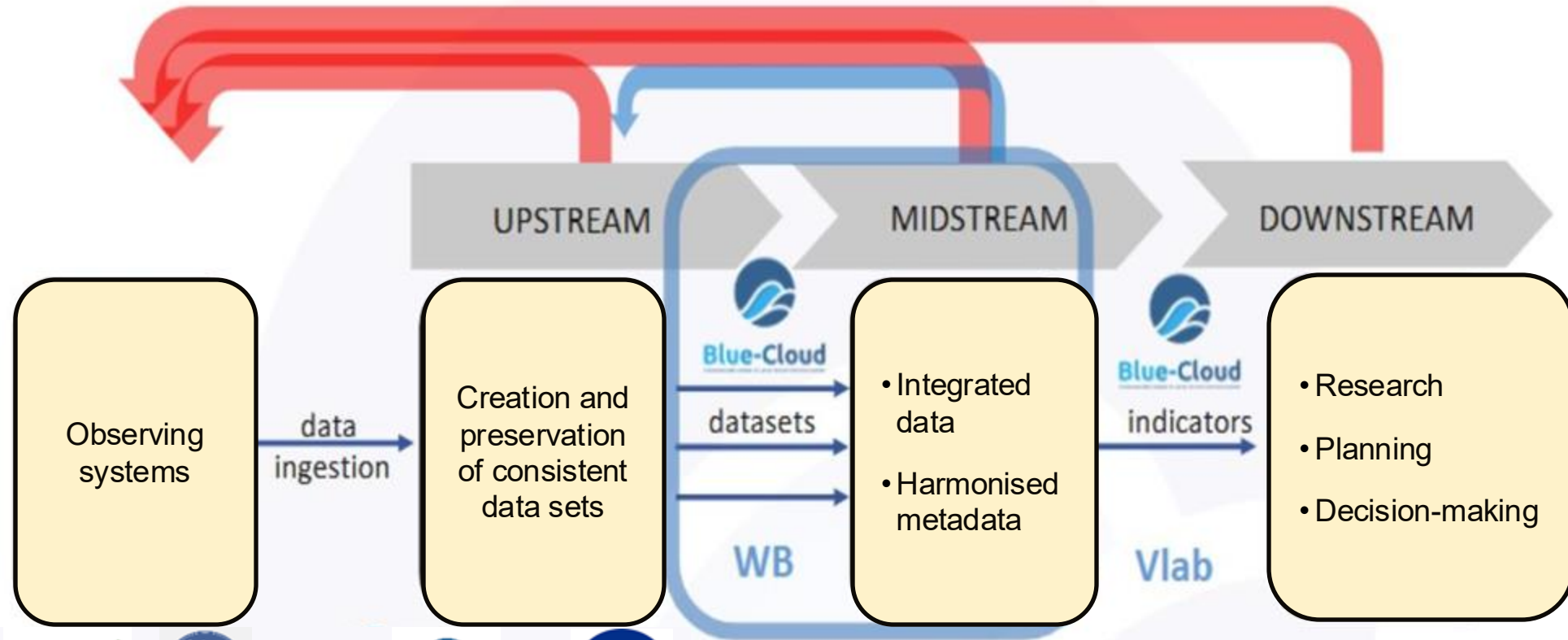
A **VRE** is an infrastructure that facilitates the orchestration of data processing and analytics services for building, hosting and operating thematic virtual labs.

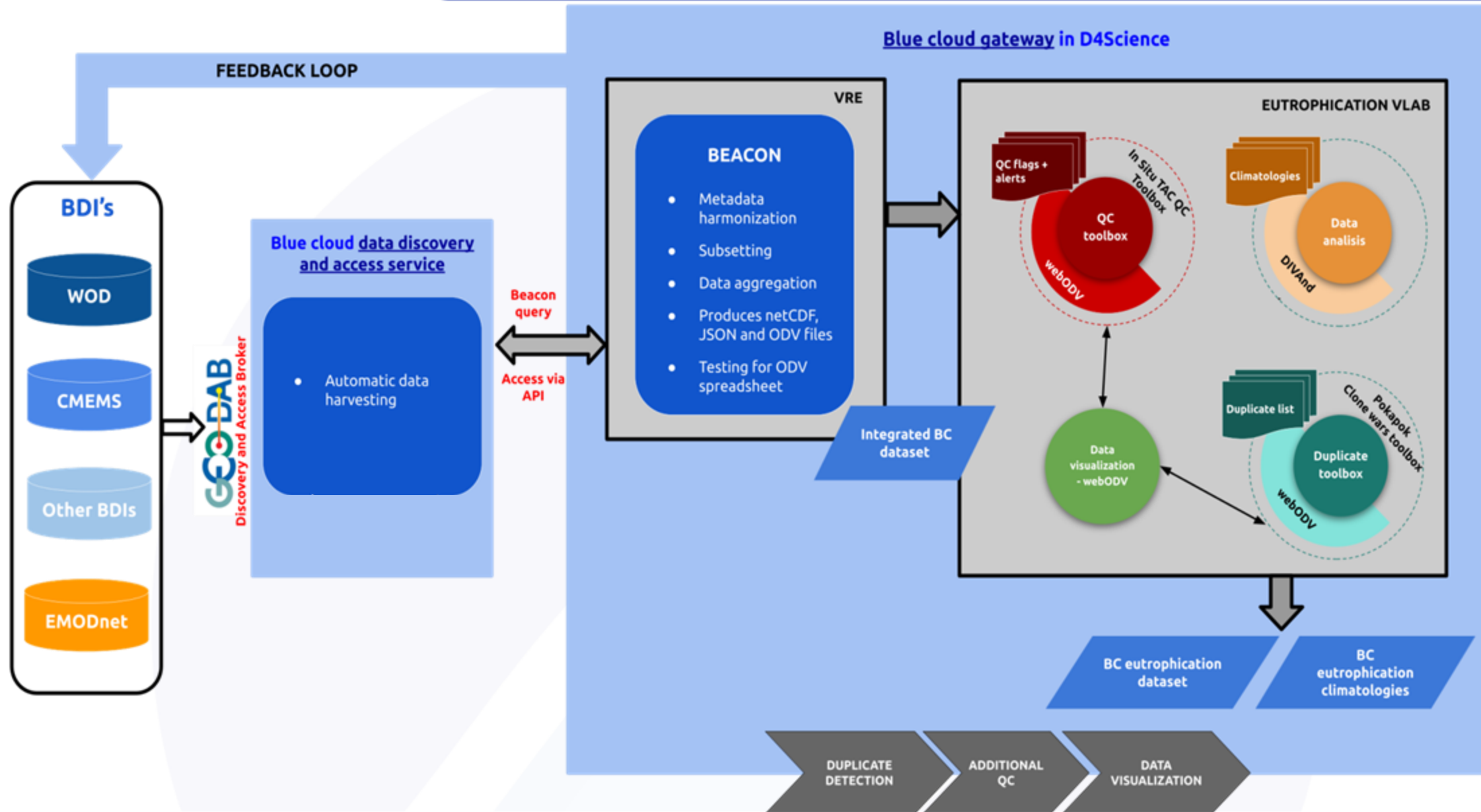
The **catalogue** features data sets and products for each virtual lab and the methods used to create it.

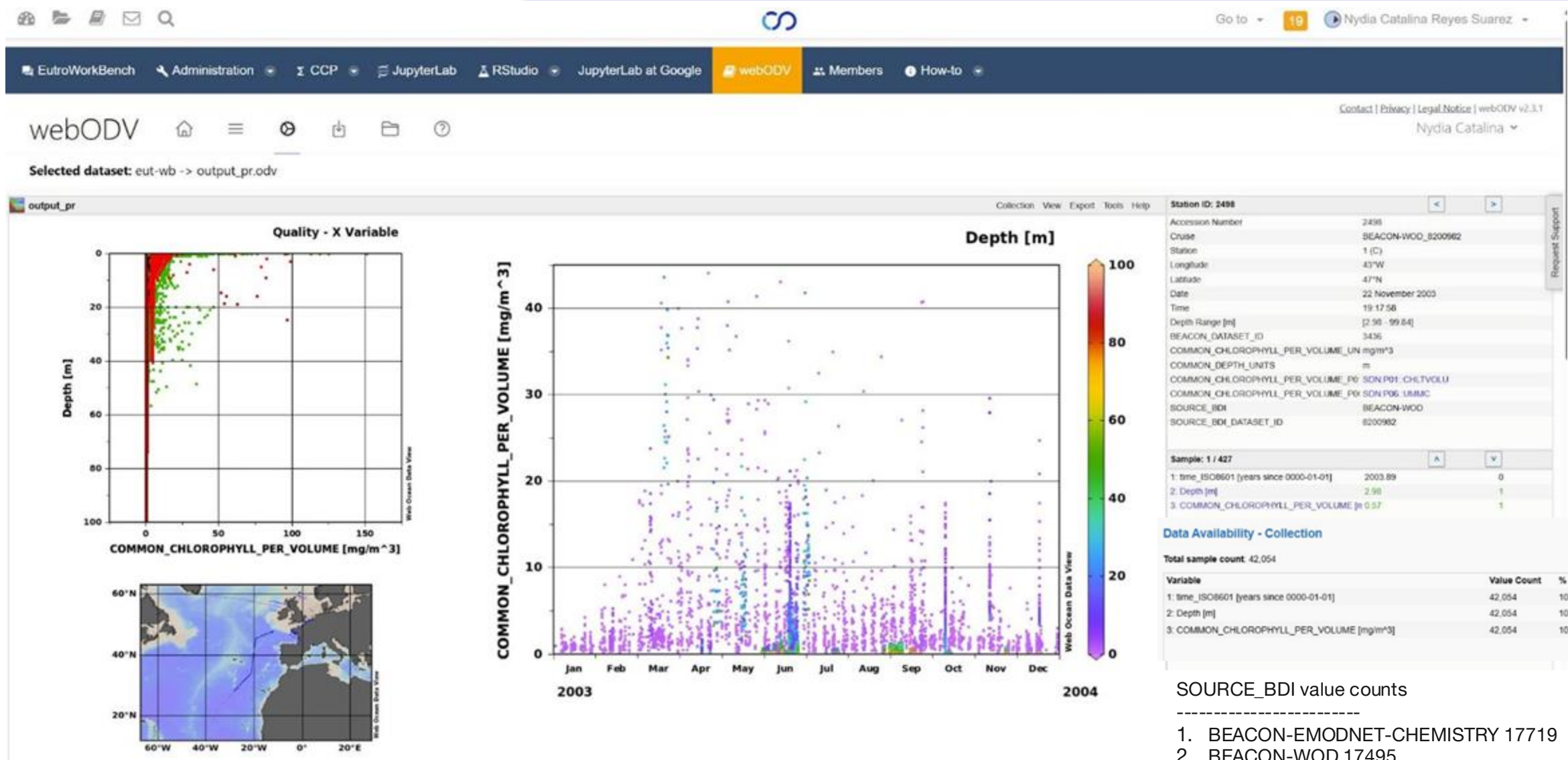
The **Virtual labs** are demonstrators configured with specific workflows; easily adopted/adapted to other inputs and analyses.

A **workbench** harmonizes metadata and data of specific Essential Ocean Variables (EOVs) from federated Blue Data management Infrastructures.

VRE and Virtual labs => <https://blue-cloud.d4science.org/>







SOURCE_BDI value counts

1. BEACON-EMODNET-CHEMISTRY 17719
2. BEACON-WOD 17495
3. BEACON-CMEMS-BGC 6840

Welcome to the Marine Environmental Indicators Virtual Laboratory

Welcome to **Marine Environmental Indicators (MEI)** Virtual Laboratory.

This Virtual Laboratory (VLab) provides services to inform the policies and support the achievement of sustainable development. The implemented algorithms are useful to analyse long time-series of marine data and to produce added value information for the assessment of the environment condition.

The services available starting from *Blue-Cloud2026* are :

- [Ocean Heat Content \(OHC\)](#)
- [Eutrophication Indicator \(TRIX\)](#)
- [Marine Heat Waves \(MHWs\)](#)

The other services available from the *Blue-Cloud Pilot Phase* are the following:

- [Ocean patterns and ocean regimes indicators](#)
- [Storm severity index](#)
- [Easy access to carbon data](#)

There is also available a customized webapp for accessing the indicators:

[Marine Environmental Indicator \(MEI\) generator](#)

A detailed description of the *Blue-Cloud2026* services is available in the [Blue Cloud Users Handbook](#). For the *Blue-Cloud Pilot Phase* services refer to the [related handbook](#).

For each service, the document provides specific information related to the target users, the input data sources, the scientific references, and also a step by step guideline allowing users to operate the service.

The documentation on how to use this VLab are linked below. Enjoy!

How-tos

- [Marine Heatwave Indicator \(MHWs\)](#)
- [Ocean Heat Content \(OHC\)](#)
- [Eutrophication Indicator \(TRIX\)](#)
- [Storm Severity Index \(SSI\)](#)

About



Marine Environmental Indicators Virtual Lab is the implementation of the Blue-Cloud project Demonstrator 4, providing services for Environmental Protection Agencies and international stakeholders addressing EU Marine Strategy Framework Directive (MSFD), UN SDG 13 and UN SDG 14

[Other options ...](#)

Blue-Cloud Training Academy

Unlock the potential of Open Science and FAIR data principles for marine research



Welcome to the Blue-Cloud Training Academy! This space offers comprehensive lessons and materials that guide you in utilising Blue-Cloud services for Open Science in marine research.

Discover how to harness the power of our platform and embrace Open Science practices in the ocean science domain. Additionally, we host dedicated meetings to foster the uptake of Open Science practices and FAIR data principles, ensuring that you stay at the forefront of innovative research methodologies. Join us on this educational journey to unlock the full potential of Open Science in marine research with the Blue-Cloud Training Academy.



Browse all Training Academy events



Browse all training material

In partnership with



<https://blue-cloud.org/training-academy>

September 2025:
Participation in a call
for tenders under the
EU Horizon Europe
funding programme

The vision for EOSC is to put in place a system in Europe to find and access data and services for research and innovation. This is to help researchers store, share, process, analyse and reuse FAIR research outputs within and across disciplines and borders.

The deployment of a network between data repositories and services will be instrumental for Open Science to progress in Europe. For this, the EOSC Federation of nodes is being created.

The ongoing build-up phase is the first phase of development of an operational EOSC Federation.



Organisations participating in the workshop for the kick-off of the build-up phase of the EOSC Federation

CONTRIBUTING TO THE BUILD-UP PHASE OF THE
EOSC Federation



<https://eosc.eu/eosc-about/building-the-eosc-federation/>

THANKS FOR YOUR
ATTENTION

eosc | Blue-Cloud2026



blue-cloud.org



[@bluecloudeu](https://twitter.com/bluecloudeu)



[blue-cloud org](https://www.linkedin.com/company/blue-cloud-org)



Funded by
the European Union