



Developing a marine thematic EOSC to demonstrate the potential of cloud based open science for ocean sustainability

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Blue-Cloud in numbers

- **Funding:** H2020: The 'Future of Seas and Oceans Flagship Initiative' (BG-07-2019-2020) topic: [A] 2019 - Blue Cloud services
- **Timing:** 36 Months (start October 2019)
- **Budget:** 5.9 Million Euro
- **Partnership:** 20 partners
- **9 Blue federated Infrastructures**

The vision

Blue-Cloud aims to become the reference point for the “*Blue community*” in the need of *data, analytics tools and computing resources* in **EOSC** and in the future **Blue Economy & marine research landscape**

The mission

Blue-Cloud aims to **pilot** a cyber platform bringing together and providing access to: 1) **multidisciplinary data** from observations and models, 2) **analytical tools**, & 3) **computing facilities** essential to **support research** to better understand and manage the many aspects of **ocean sustainability**

Blue-Cloud is a Pilot to demonstrate the potential of "cloud" based science



It will federate the resources of most key infrastructures in the marine domain offering access to an unprecedented wealth of multi-disciplinary data resources and added-value services

Thematic



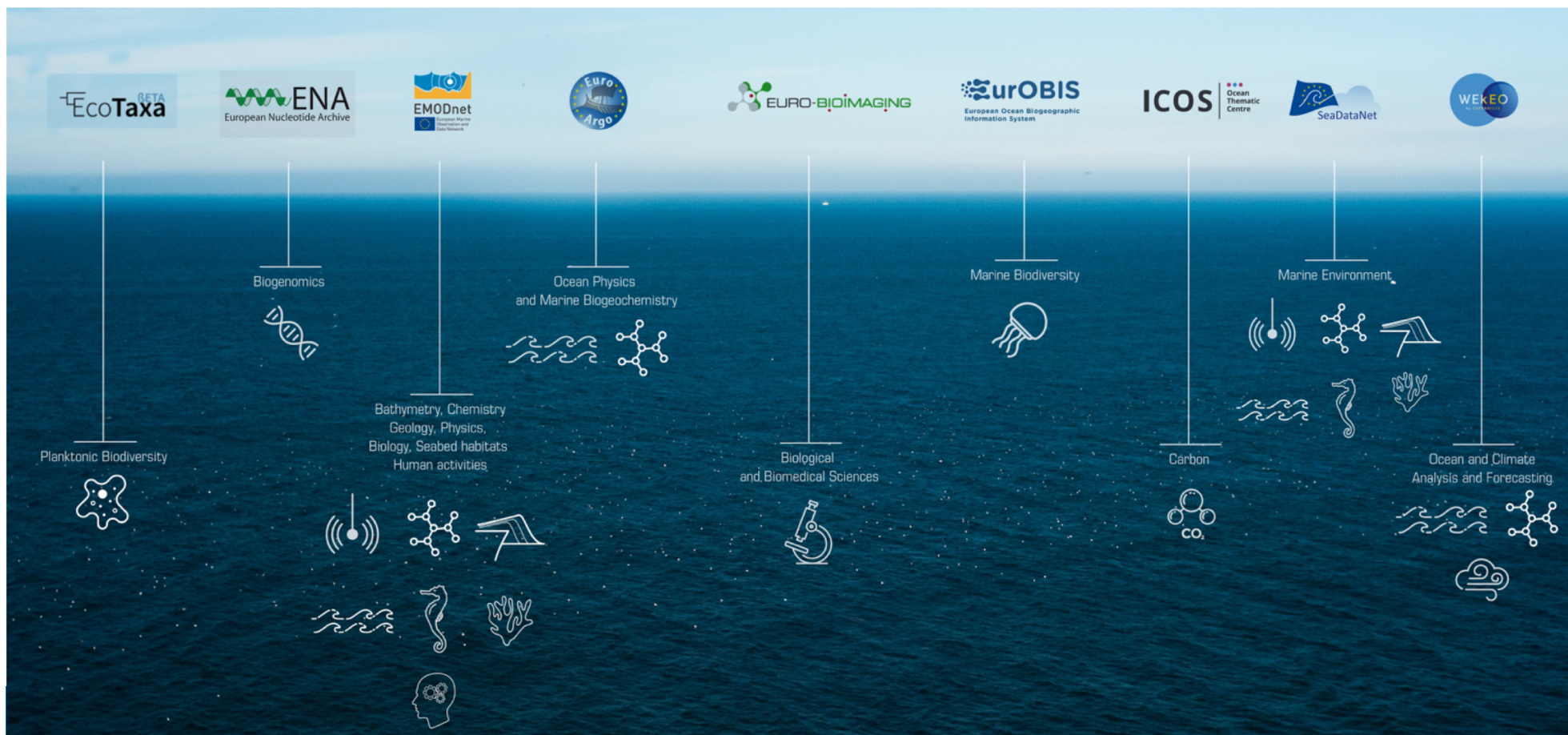
**EUROPEAN OPEN
SCIENCE CLOUD**

An underwater photograph showing various pieces of plastic waste floating in clear blue water. The waste includes several white plastic bags, a large blue plastic bag, a clear plastic bottle, and some green leaves. The scene is set against a deep blue background, highlighting the presence of marine debris.

**It supports research to better
understand and manage the many
aspects of ocean sustainability**

How?

Building a smart federation of existing data resources, computing platforms, and analytical services



The Blue-Cloud assets

- **A data discovery and access service** to facilitate sharing with users of multi-disciplinary datasets
- **A Blue Cloud Virtual Research Environment (VRE)** to facilitate the orchestration of computing and analytical services to build specific applications

Biodiversity

Environment

Fishery

Aquaculture

Five, real-life demonstrators



Zoo- and Phytoplankton EOV products

EMBL



Plankton Genomics



Marine Environmental Indicators



Fish, a matter of scales



Aquaculture Monitor

Source: European Parliament



**Co-designing a community-oriented Roadmap for
the future strategic development of the Blue Cloud**



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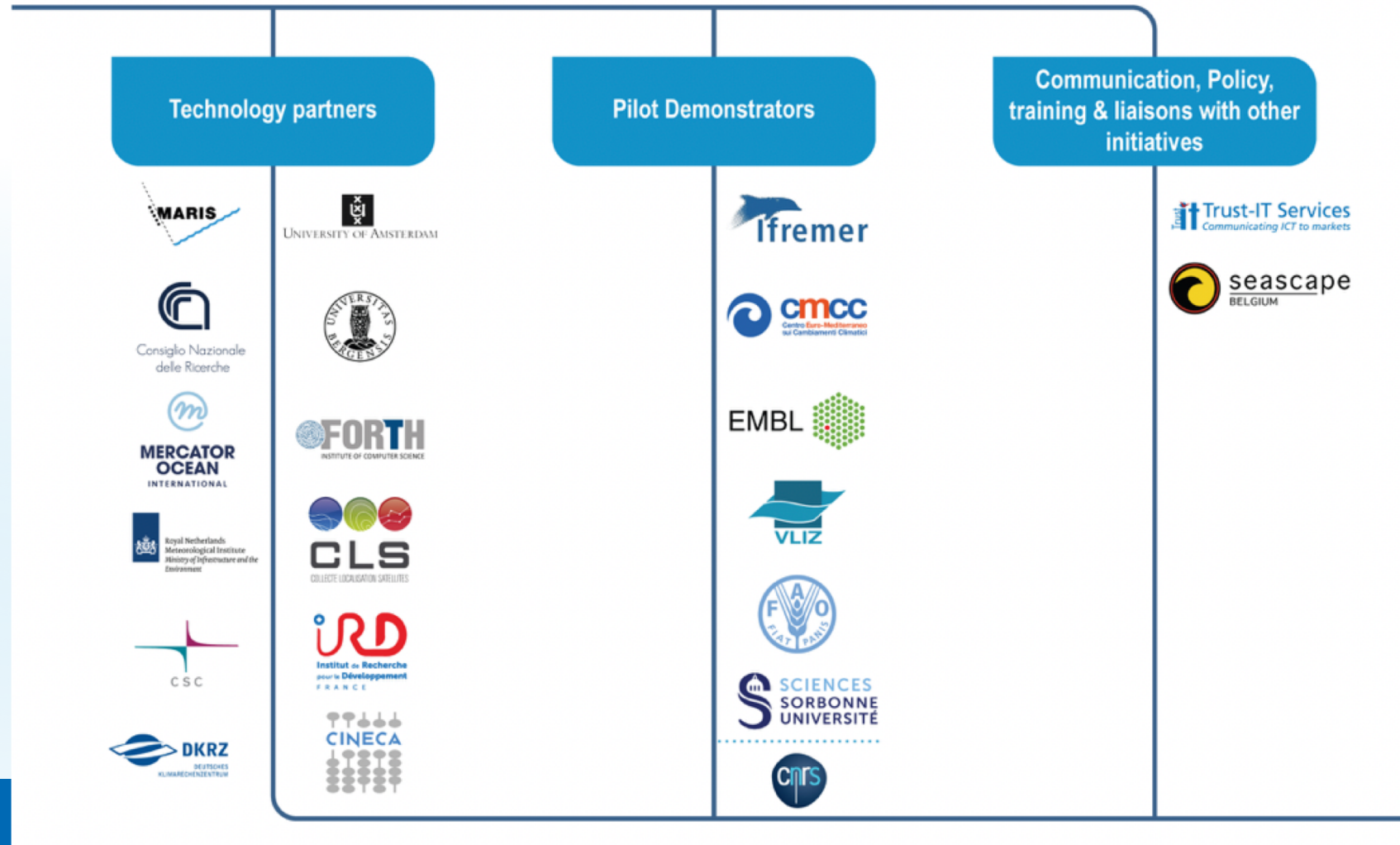
Expected Impacts

- Witness practical take-up of the **Blue Cloud** serving as a role model for other **thematic clouds**
- **Increase data sharing and increase integration of data**
- Facilitate the work & **dialogue within & between the Pilot demonstrators & the Community based projects & initiatives**
- Stimulate and **Engage with all Stakeholders** – Sharing the Vision & Sharing Results
- **Interdisciplinary & cross sectorial nature**
- **Short term and Long-term sustainability** through validated Business Models
- **Maintain excellence on a global scale** by means of active non-EU liaisons and up to date technical and policy observatory
- Programme with an **emphasis towards the end-users and a user-centred approach to the pilots**
- **Capacity Building** Improved **professional skills and competencies** of workers supporting new jobs creation in the blue economy



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The Partnership



04/05/20



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Thank you! Questions?

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