

Channeling Open Science for a sustainable management of the ocean: best practices and collaboration opportunities

Sara Pittonet Gaïarin, Trust-IT, Blue-Cloud coordinator



WELCOME

Blue-Cloud Mission

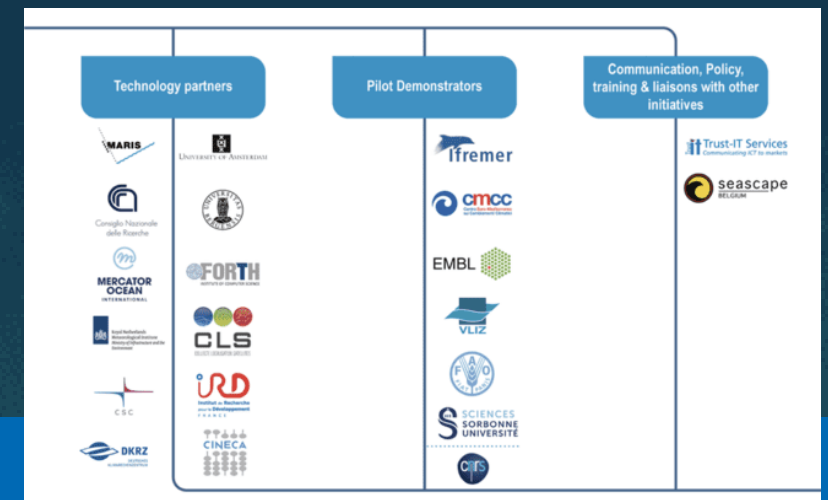
Blue-Cloud aims to promote the **sharing** of *data, processes and research findings* in the marine domain by delivering a **collaborative web-based environment** that enables *open science*, underpinned by simplified access to an **unprecedented wealth of marine data resources** and **interoperable added-value services and products**”

Funding: H2020: The ‘Future of Seas and Oceans Flagship Initiative’ (BG-07-2019-2020) topic: [A] 2019 - Blue Cloud services

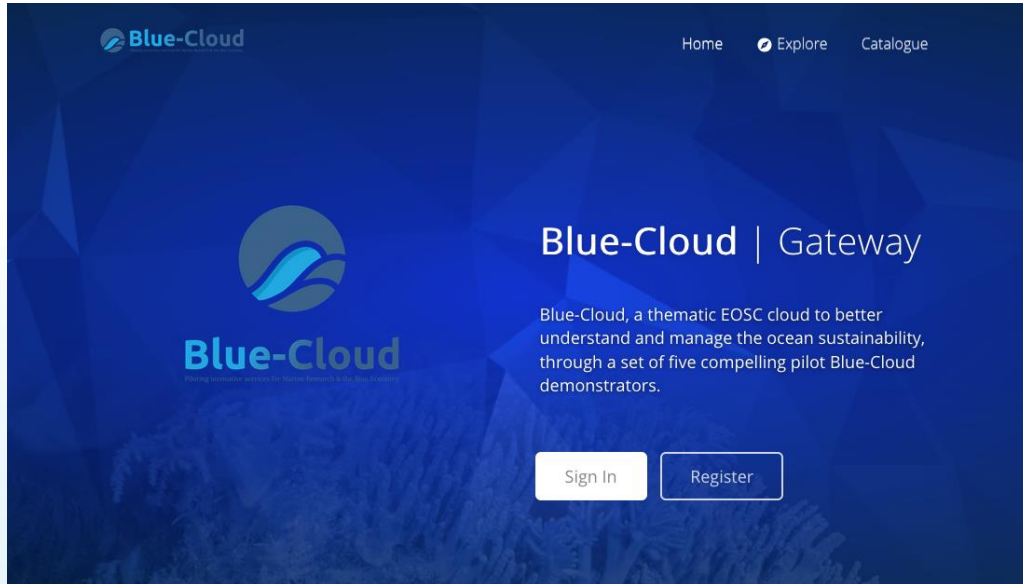
Timing: 36 Months (start October 2019)

Budget: 5.9 Million Euro

Partnership: 20 partners + 13 Blue federated Infrastructures



Blue-Cloud key products and services



- 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

<https://blue-cloud.d4science.org/>



- Blue-Cloud Virtual Research Environment **infrastructure** to provide a range of services 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 **five Demonstrators**, developed to showcase the potential of the European Open Science Cloud, which can be adopted and adapted to support other thematic communities.



Zoo & Phytoplankton
EOV products



Plankton
Genomics



Fish a matter
of scales

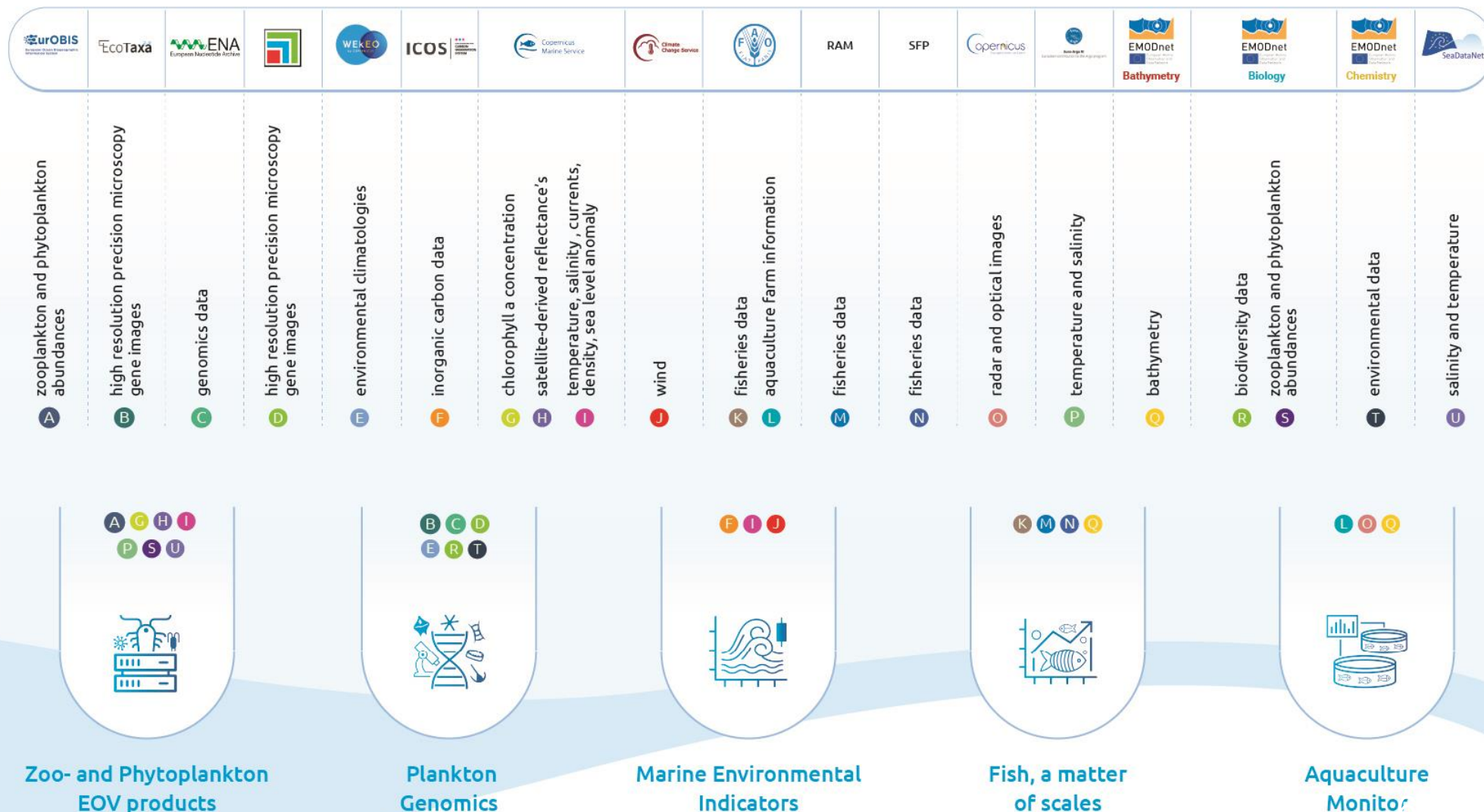


Marine Environmental
Indicators



Aquaculture
Monitor

The Blue Cloud demonstrators have been developed as Virtual Labs embedded in the D4Science VRE e-infrastructure and supported by data input and computing services, demonstrating Blue-Cloud's potential in different fields of marine research, ranging from biodiversity to environmental science, as well as fisheries and aquaculture.



Dialogue with related projects and initiatives in Europe and beyond

In the first 18 months of the project, Blue-Cloud has started **concrete collaboration with 21 synergies** through interactions with key European actors connected to H2020 projects, EOSC-related projects, the FNS-Cloud initiative, policy stakeholders and marine data and research infrastructures and e-infrastructures

<https://www.blue-cloud.org/synergies>

E-Infrastructures



Blue Data Infrastructures



EU-funded projects



Blue-Cloud Hackathon

4 Challenge categories



Decoding the Ocean



Healthy & Sustainable Food Systems



Early warning indicators of environmental risks or natural events



Wild Card – Hack the Blue-Cloud!

6-10 Teams



Tools & resources



B-C VRE
B-C Virtual Labs

B-C Data
Discovery &
Access Service



Coaches



Training & inspiration

Hackathon



1-Week Training & Idea Formation



1-Week (7-day) Hacking



Results

Per Team, Proof of Concept:
Video Pitch
Summary presentation
Code (optional)

Awards



Open Science Award



Data Award



Visualization Award



Impact Award

Prices: **TBC**

Blue-Cloud 2030: The Road Ahead

Strategic framework towards shaping the future evolution of Blue-Cloud

From demonstrating the potential of Open Science in the marine domain to realizing its full potential in support of the EU Green Deal and UN Agenda 2030.

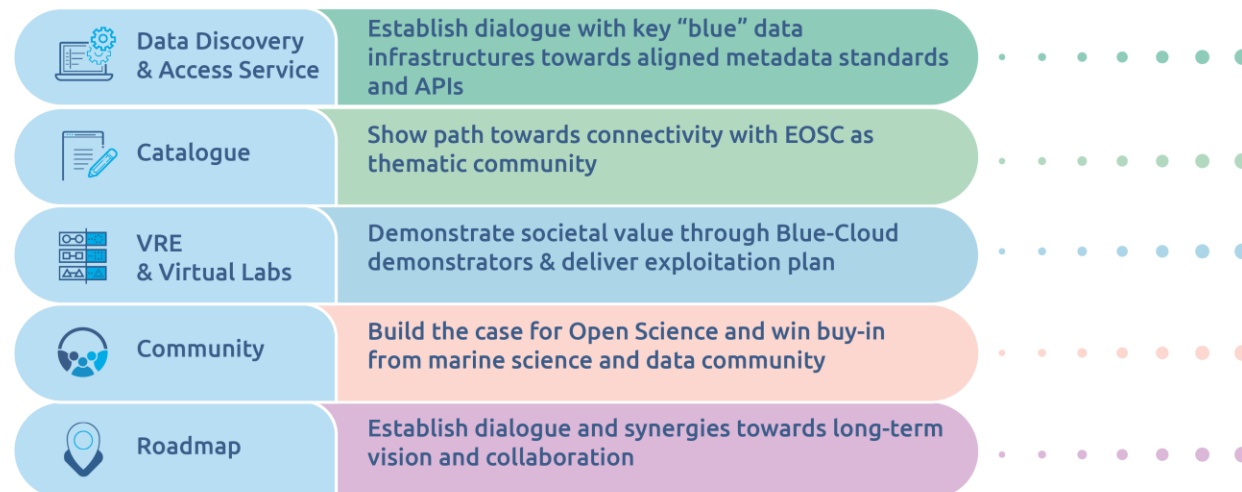
Blue-Cloud Mission Statement 2022

"To promote the sharing of data, processes and research findings in the marine domain by delivering a collaborative web-based environment that enables Open Science, underpinned by simplified access to a wealth of easily discoverable and interoperable marine data and products".

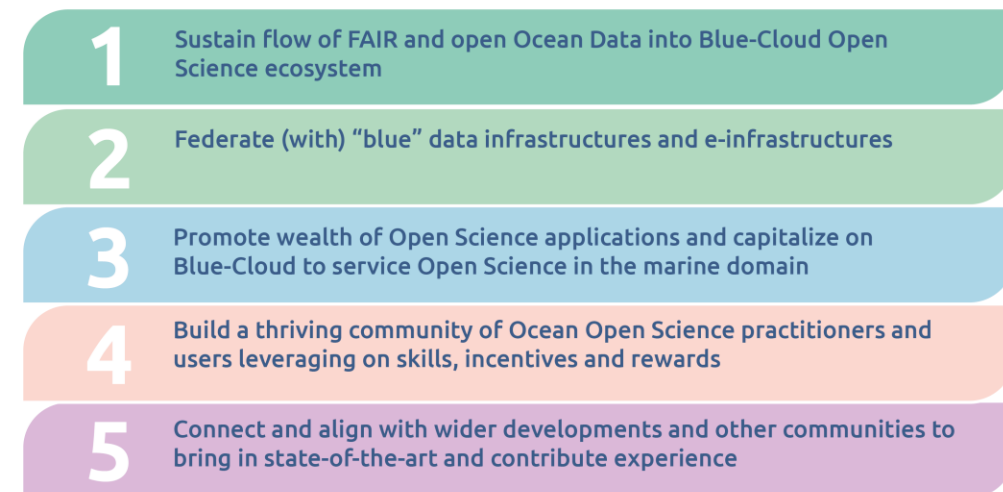
Blue-Cloud Mission Statement 2030

"To contribute towards a European cloud-based data space that provides access to a thriving portfolio of analytical, simulation and visualization capabilities underpinned by seamless access to a wealth of FAIR, transdisciplinary ocean and freshwater data, enabling Open Science to deliver knowledge, innovation, collaboration, science-based policies, public awareness and citizenship for a safe, healthy, productive, predictive and transparent Ocean, in support of the EU Green Deal and the UN Agenda 2030".

Blue-Cloud Key Assets



Strategic pillars towards delivering Blue-Cloud Mission Statement 2030



2022

2030

Specific actions around each strategic pillar will be identified through wide public consultation, leading to policy recommendations for the future evolution of Blue-Cloud into the decade.

Take the survey to shape the future of Blue-Cloud!



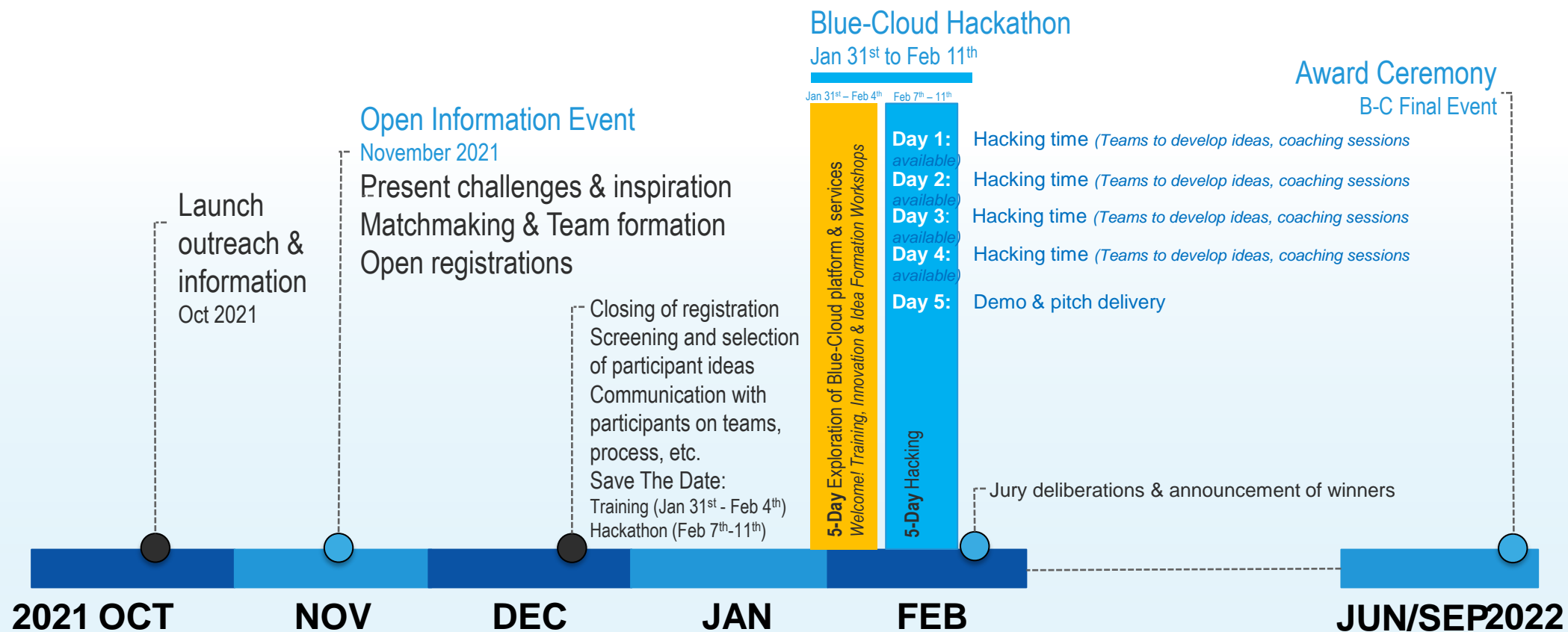
Today's agenda

16.30	Welcome and introduction Sara Pittonet Gaiarin, Trust-IT Services and Blue-Cloud coordinator
16:35	Channeling Open Science for a sustainable management of the ocean: best practices and collaboration opportunities <ul style="list-style-type: none"> • A transport Observatory for Promoting Open Science. Afroditi Anagnostopoulou, CERTH and BE OPEN • Food Nutrition Security (FNS)-Cloud, Siân Astley, EuroFIR (BE) • Piloting innovative services for Marine Research & the Blue Economy. Dick Schaap, Maris and Blue-Cloud • Co-designed citizen observatories for the EOSC. Karen Soacha, ICM-CSIC and Cos4Cloud
17:05	Challenges and gaps of Open Science technological frameworks <ul style="list-style-type: none"> • Moderated Panel discussion with open poll questions - Moderated by Sara Pittonet Gaiarin, Trust-IT Services (Blue-Cloud) • Dick Schaap, MARIS (Blue-Cloud), Afroditi Anagnostopoulou, CERTH (BE OPEN), Siân Astley, EuroFIR & Karl Presser Premotec (FNS-Cloud), Karen Soacha & Jaume Piera, ICM-CSIC (Cos4Cloud), Iván Roderó, EMSO ERIC (Cos4Cloud)
17:55	Wrap-up and closure Sara Pittonet Gaiarin, Trust-IT Services (Blue-Cloud)

WRAP-UP



Timeline





Blu

loud

Piloting innovative services for Marine Research & the Blue Economy

Thank You! Any questions?

Sara Pittonet Gaiarin, Trust-IT

Blue-Cloud Coordinator

June 21st, 2021

THANK YOU



Blue-Cloud has received funding from the European Union's Horizon Programme call BG-07-2019-2020, topic: [A] 2019 - Blue Cloud services, grant Agreement number 862409.



Blue-Cloud and FNS-Cloud: a synergy to strengthen open research in the fisheries field

- ★ **Blue-Cloud** has been cooperating with the **FNS-Cloud** project since April 2020, due to the commonalities shared by the initiatives in integrating data on the thematic European Open Science Cloud (EOSC) and fostering methods to make data more FAIR (Findable, Accessible, Interoperable, and Reusable).
- ★ The collaboration has brought important results in a relatively short period of time. Blue-Cloud and FNS-Cloud support the development of the new **FAO uFish dataset**, a widely used and cited reference table of food composition values of aquatic products. The data are taken from selected publications and undergo a thorough review and validation process that must be replicated in this application.

The experience of a thematic (“marine”) EOSC that can serve as a role model and ‘blueprint’ for the development of other thematic clouds within EOSC