



The The European Open Science Cloud on a global stage

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EOSC Association Director

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Science is in transition

Open Science: sharing knowledge and tools as early as possible, between researchers and disciplines and also with society at large.



Image by Nick Youngson CC BY-SA

Open Science Commons

The Commons are community-governed and driven by a core set of values

EOSC

European Open Science Cloud
will

Enable Open Science Commons

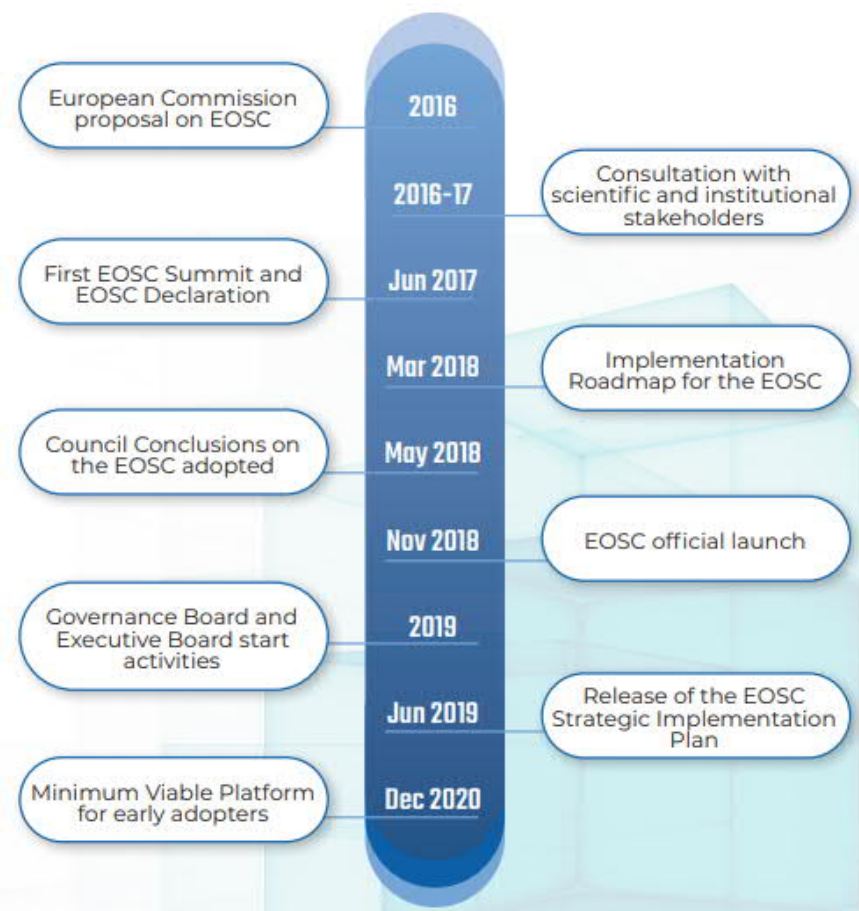


European Open Science Cloud

"We are creating a European Open Science Cloud now. It is a trusted space for researchers to store their data and to access data from researchers from all other disciplines. We will create a pool of interlinked information, a 'web of research data'. Every researcher will be able to better use not only their own data, but also those of others. They will thus come to new insights, new findings and new solutions."

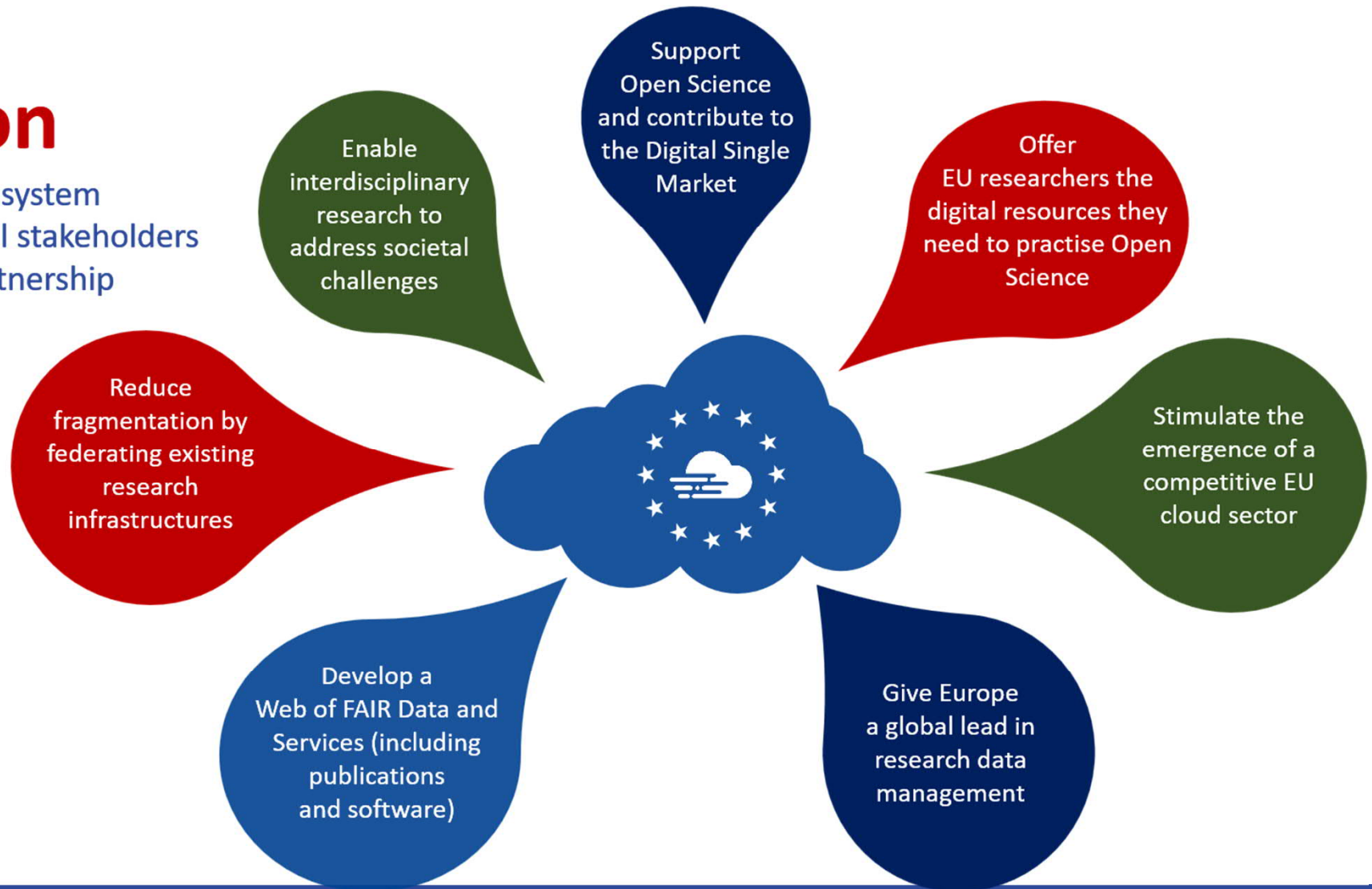


Ursula von der Leyen,
European Commission President
World Economic Forum in Davos,
January 2020



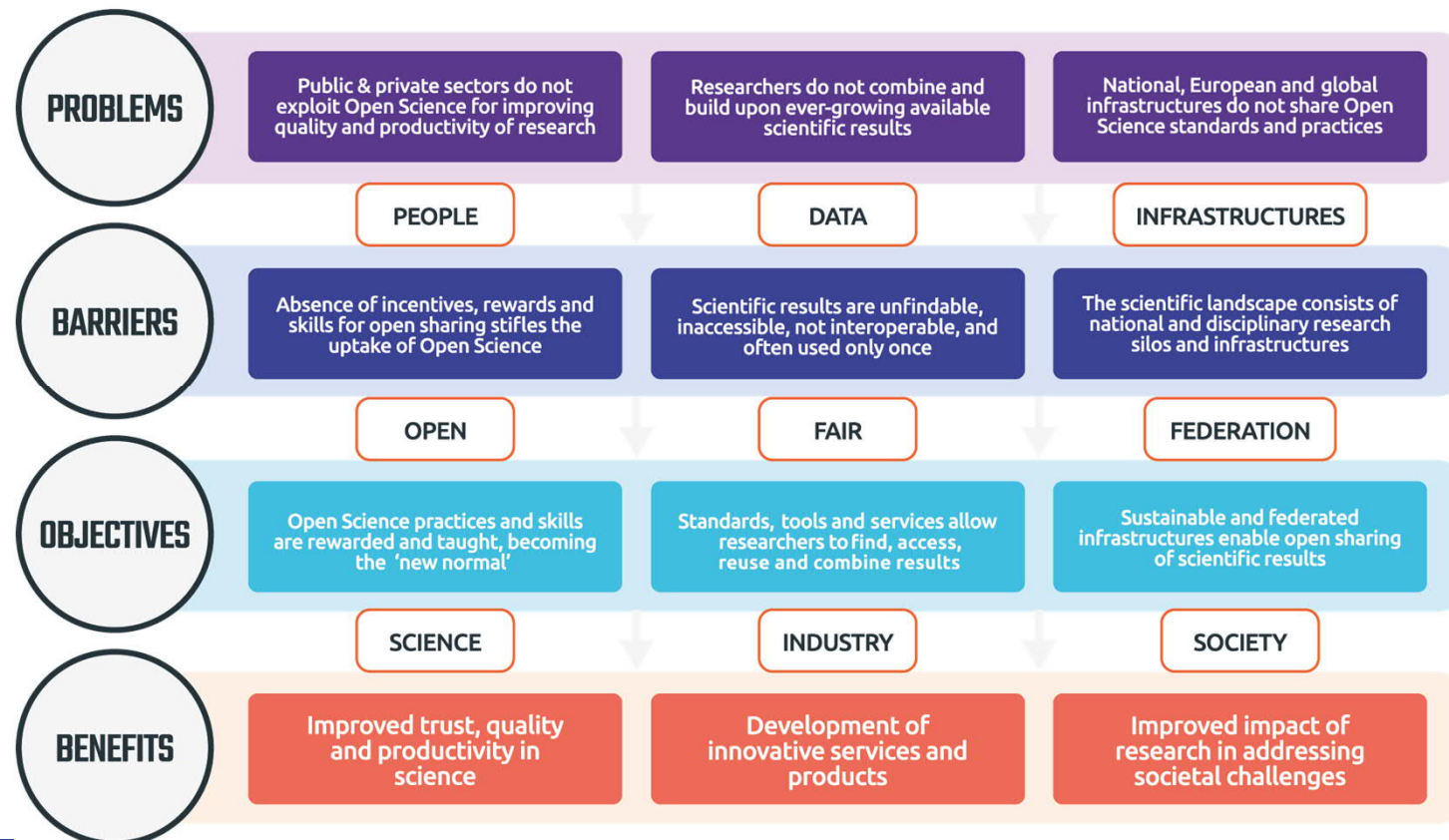
The Vision

Building the EOSC ecosystem collaboratively with all stakeholders through the EOSC Partnership



EOSC Objectives Tree

European Open Science Cloud Objectives Tree

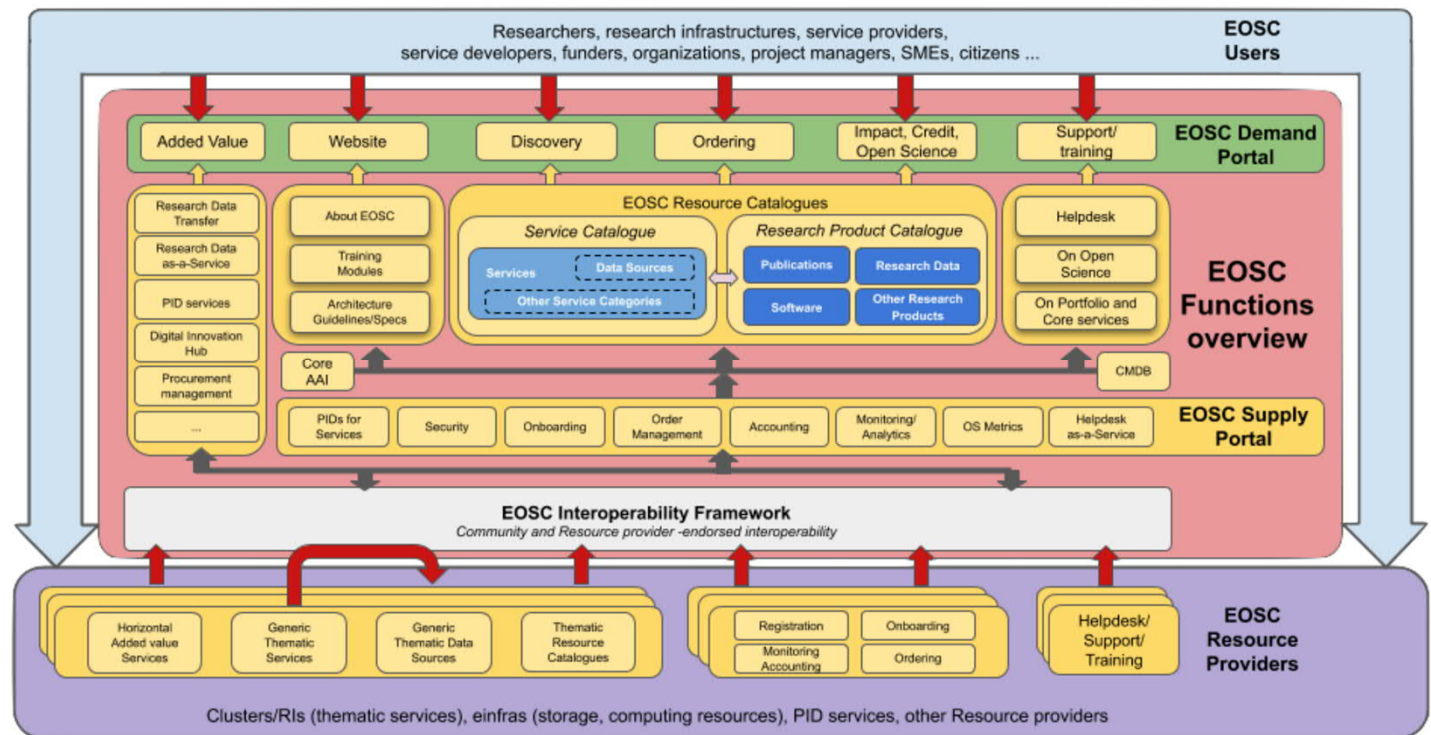


(EOSC Strategic Research Implementation Agenda)

Overview of the EOSC Architecture

The EOSC MVE Concept:

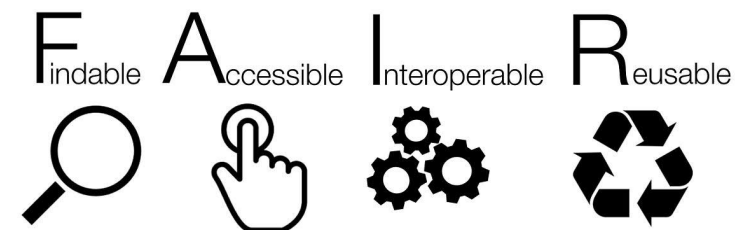
- EOSC-Core: Enabling services required to operate the EOSC
- EOSC-Exchange: Federation services registered to the EOSC by RIs and clusters to serve the needs of users.
- EOSC Federation: Scientific services provided by RIs and Clusters to the respective communities.



EOSC architecture working group view on the minimum viable EOSC (MVE)

First iteration – a Minimum Viable EOSC (MVE)

- Establish an initial MVE that will enable the federation of existing and planned research data infrastructures
- MVE includes EOSC-Core and EOSC-Exchange which work with federated FAIR datasets
- Main focus and added value: connect disciplinary infrastructures and enable cross-disciplinary research



EOSC-Core

Shared open science policy framework

An instantiation of the EOSC interoperability Framework including

- Authentication and Authorization Interoperability (AAI)

- Persistent Identifiers

- Interoperable metadata

- Data access

- Service management and access

- Open metrics

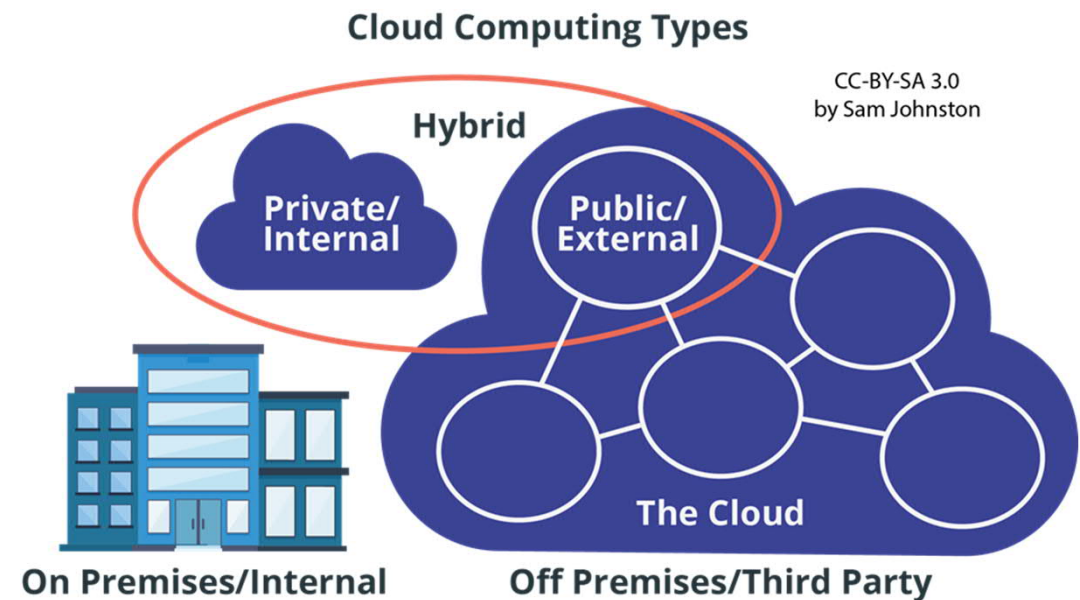
Security policies and procedures to ensure consistent and coordinated security operations across the federated services

Operational support services for EOSC-Core and made available to those federating services connecting to the EOSC-Core.

Web-portal including web-content as well as supply and demand facing services providing for accessing the EOSC resources.

EOSC-Exchange

- ★ EOSC-Exchange builds on EOSC-Core
- ★ Providing rich set of services to exploit FAIR data and encouraging its reuse to publicly funded researchers
- ★ Rivalrous services (to transport, store and compute research data, etc.) will be made available via EOSC-Exchange
- ★ Participation as a service provider requires to conform to predefined Rules of Participation



Rules of Participation (RoP)

- Minimal set of rules that specify the rights, obligations and accountability governing EOSC activities
- RoP are set at a level to encourage wide participation, including from less advanced research communities
- Many of the Rules will need to provide encouragement rather than impose strict requirements, but can develop over time to include more stringent conditions
- The EOSC Association will be responsible for the RoP
 - Guidelines on ownership and evolution of RoP: <https://doi.org/10.2777/67118>

RoP (v2.2) – The Rules (1 of 2)

Juan Bicarregui

UKRI-STFC Head of Data Division
Scientific Computing Department

EOSC Executive Board

RoP WG coordinator

- *EOSC is open to all*
 - As open as possible as closed as necessary
 - Resources and Participants
- *EOSC resources are registered in an EOSC recognised catalogue*
 - Really a definition, but important to include
 - Not a single catalogue, but a catalogue of catalogues (recursively)
- *EOSC participants adhere to principles of proper research conduct*
 - EOSC participants agree to adhere to the Rules of Participation
- *EOSC participants agree to their use of EOSC being monitored and analysed*
 - Quality through transparency
- *Participation in EOSC is subject to the policy and legislation of EU*

RoP (v2.2) – The Rules (2 of 2)

Juan Bicarregui

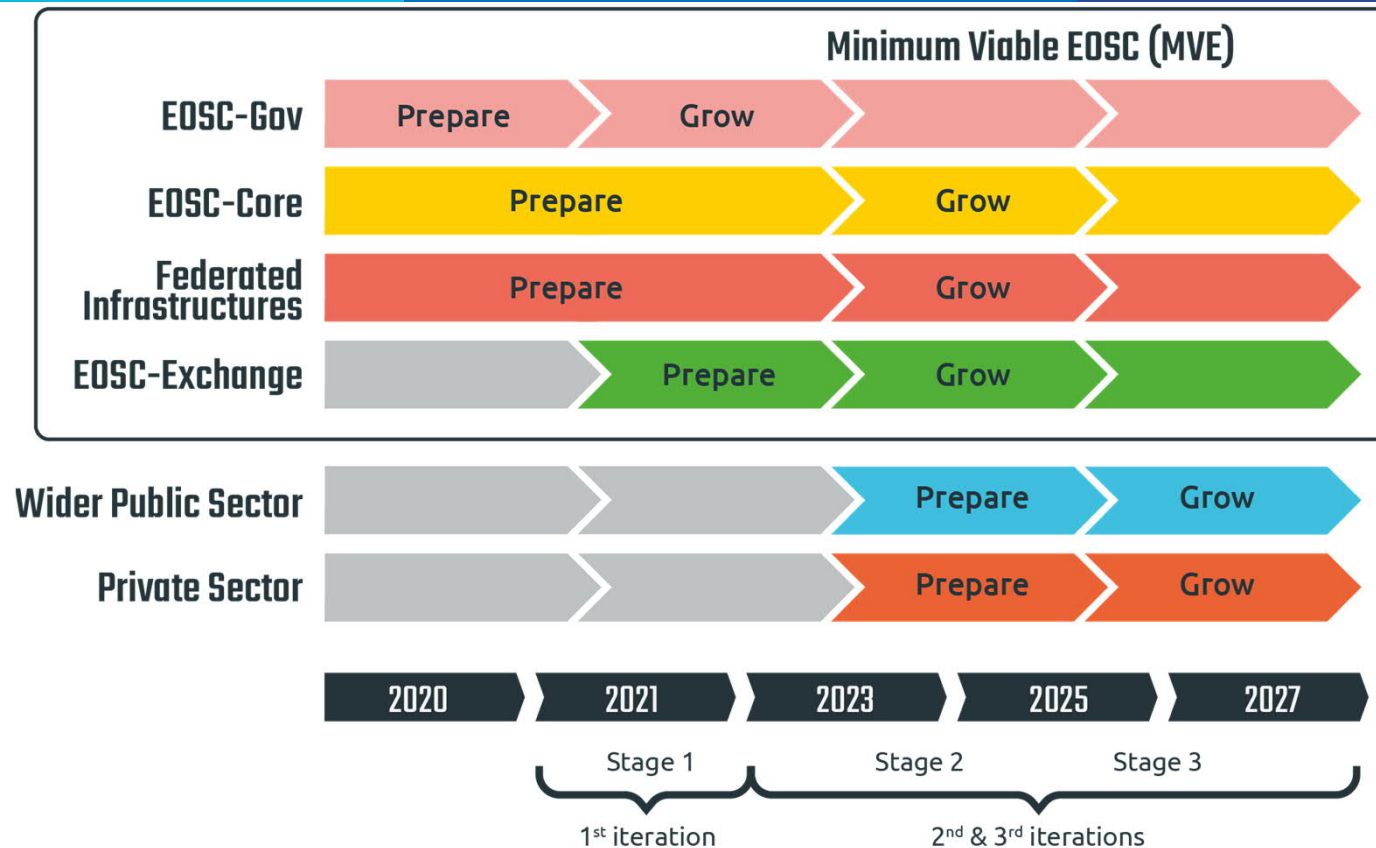
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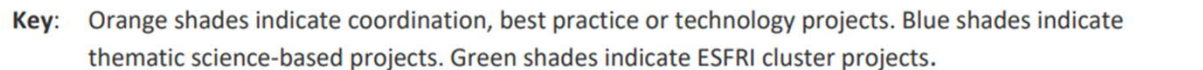
RoP WG coordinator

- *EOSC Users adhere to the terms of use of the resources they use*
- *EOSC Users reference the resources they use in their work*
- *EOSC Resources are freely discoverable*
 - *Ownership of resources does not change when they are made available via EOSC*
 - *Access to EOSC resources should be as simple as possible*
 - *Any charges which may apply are stated clearly*
- *EOSC Data align with FAIR principles*
- *EOSC Services align with EOSC architecture & interoperability guidelines*

Timeline

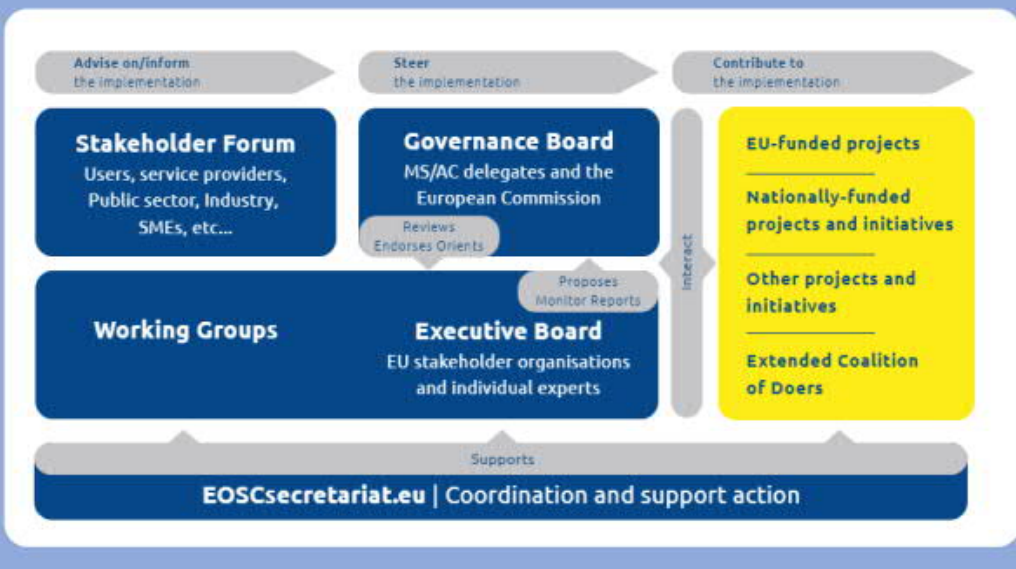


(EOSC Strategic Research
Innovation Agenda v1)
<https://eosc.eu/documents>

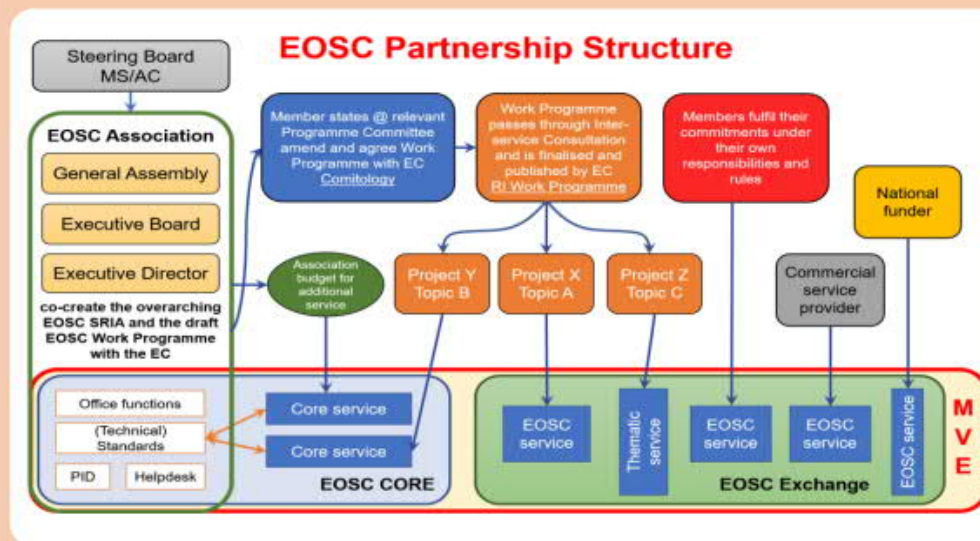


EOSC governance is transitioning

Current governance structure until 31 December 2020



New EOSC European Partnership



Join the EOSC Association to influence
<https://www.eosc.eu/> future directions

The EOSC Association

Mission: Advancing Open Science to accelerate the creation of new knowledge, inspire education, spur innovation and promote accessibility and transparency

To provide a single voice for advocacy and representation for the broader EOSC stakeholder community.

To promote the alignment of European Union research policy and priorities with activities coordinated by the Association.

To enable seamless access to data through interoperable services that address the entire research data life cycle, from discovery to storage, management, analysis and re-use across borders and scientific disciplines

Status: AISBL*

Formed in July 2020 by founding members CESAER, GÉANT, CSIC and GARR

Members are relevant stakeholders in the EOSC ecosystem

Research funders, service providers, representatives of the research community, and intergovernmental organisations

*international non-profit association under Belgian law

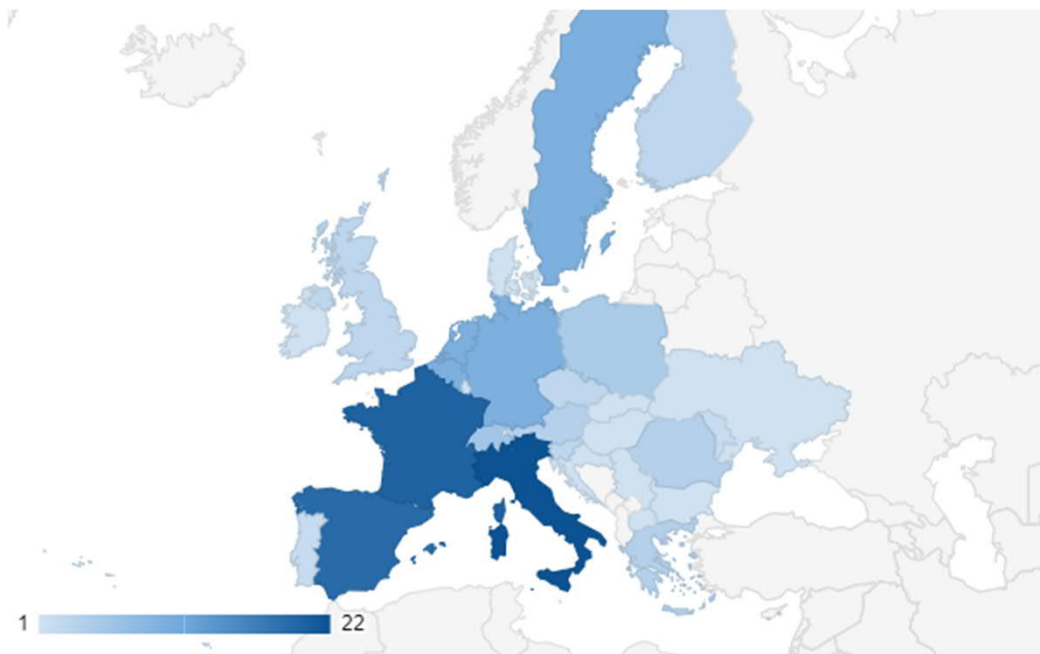
Board of Directors

- ★ Karel Luyben, CESAER & President
- ★ Klaus Tochtermann, ZBW & Director 3-year mandate
- ★ Marialuisa Lavitrano, University Milano – Bicocca & Director 3-year mandate
- ★ Suzanne Dumouchel, CNRS & Director 3-year mandate
- ★ Sarah Jones, GÉANT & Director 2-year mandate
- ★ Ignacio Blanquer, UPV & Director 2-year mandate
- ★ Ronan Byrne, HEAnet & Director 1-year mandate
- ★ Bob Jones, CERN & Director 1-year mandate
- ★ Wilhelm Widmark, University of Stockholm & Director 1-year mandate

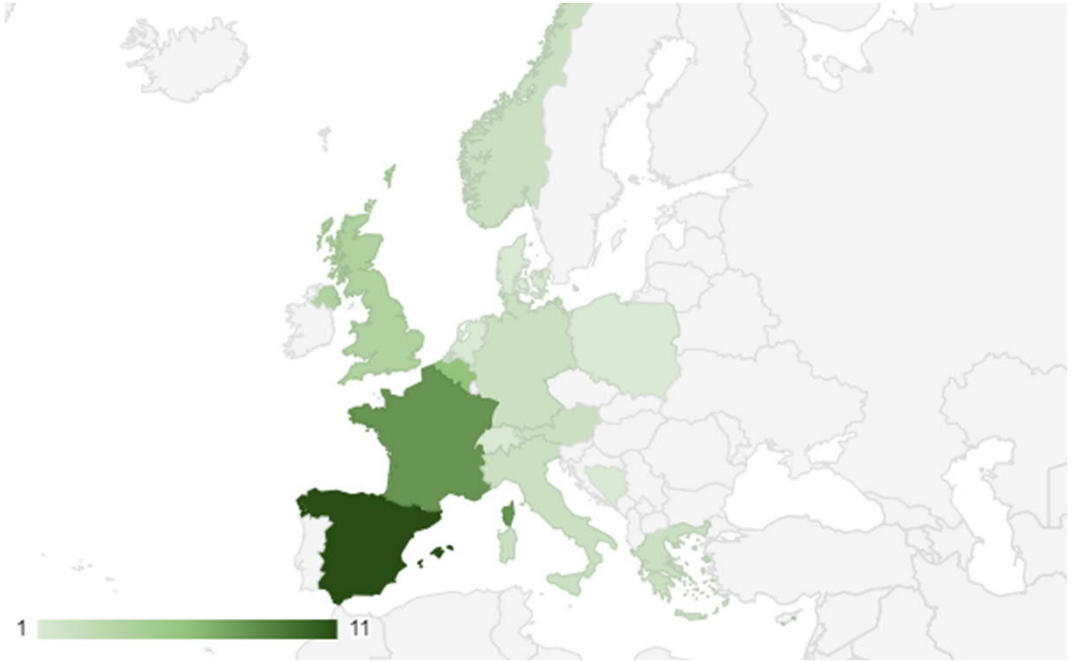


EOSC membership by geographical spread

135 Members



44 Observers



(As of December 2020)

How to join the Association: <https://www.eosc.eu/join-association>

Priorities for 2021-2022

- ★ Ensure that Open Science practices and skills are rewarded and taught, becoming the new normal
- ★ Enable the definition of standards, and the development of tools and services, to allow researchers to find, access, reuse and combine results
- ★ Establish a sustainable and federated infrastructure enabling open sharing of scientific results

Currently establishing advisory groups that will contribute to these priorities

EOSC on a global stage

- Service providers from third countries can participate in EOSC
 - Adhere to EOSC Rules of Participation and applicable legislation
- EOSC will work with other regional initiatives towards common goals for Open Science, driving global convergence on standards in support of the implementation of an open science commons



THANK YOU



**EUROPEAN OPEN
SCIENCE CLOUD**