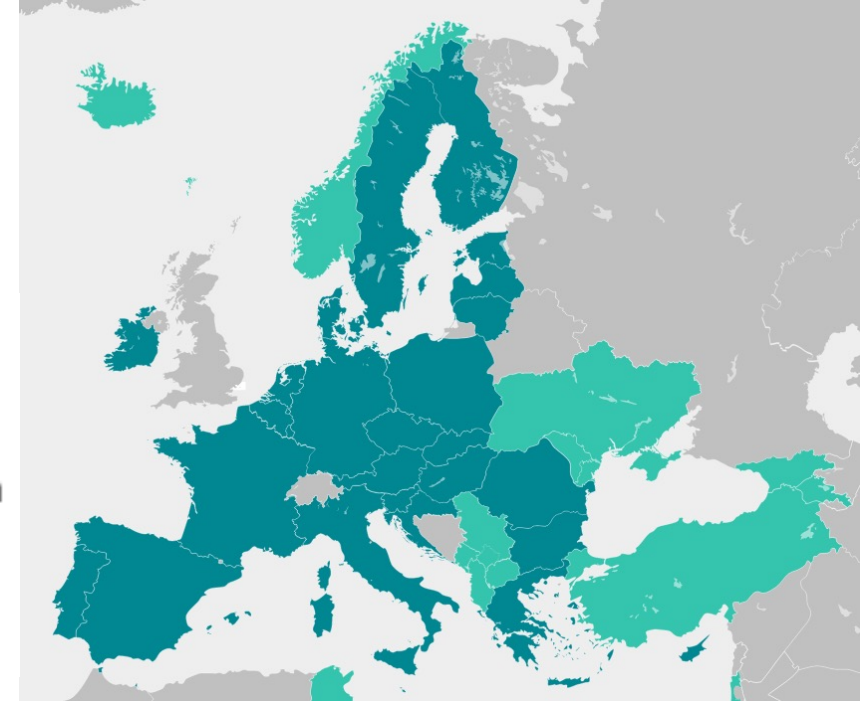**Slovak National Tripartite Event**

Hybrid event

In-person venue: Slovak Centre of Scientific and Technical Information
(CVTI SR), Lamacska cesta 8A, 840 05 Bratislava, Slovakia
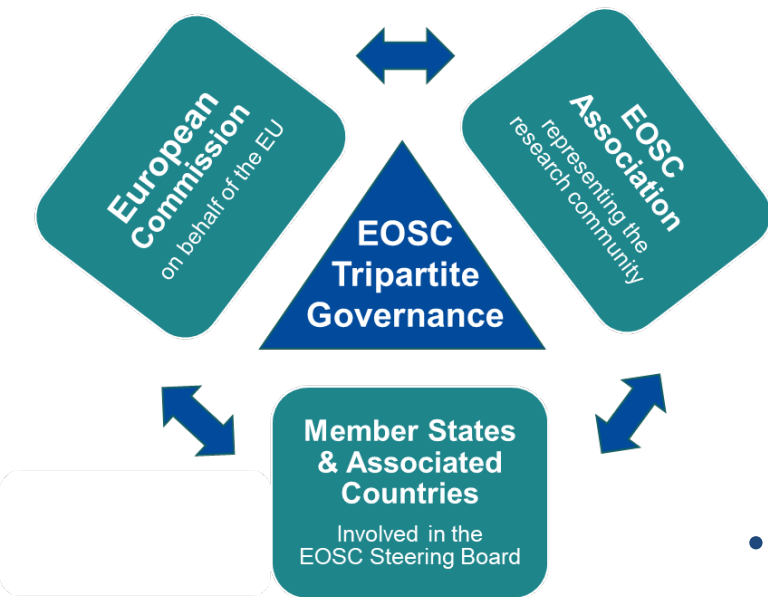
Date: 31 May 2023, 09:30-14:00

Policy contributions by the EOSC-SB

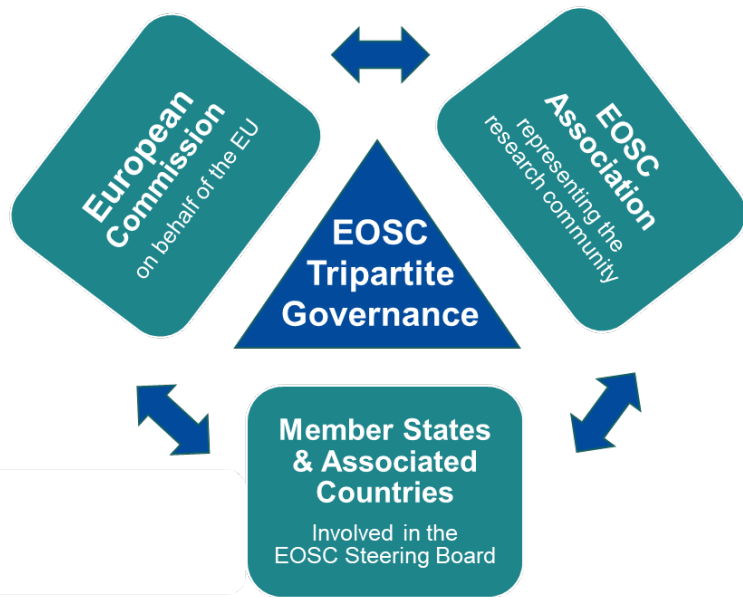Giorgio Rossi, Università degli Studi di Milano

EOSC Steering Board

Representing EU Member

States and Associated

Countries

European Commission on behalf of the EU

EOSC Association representing the research community

EOSC Tripartite Governance

Member States & Associated Countries
Involved in the EOSC Steering Board

The ambition of the European Open Science Cloud (EOSC) is to provide European researchers, innovators, companies and citizens with **a federated and open multi-disciplinary environment** where they can publish, find and reuse data, tools and services for research, innovation and educational purposes.

- EOSC is not a single monolithic organisation or resource provider but is rather a **federation** built out of many independent organisations and resource providers as in a system of systems approach. As such, **it ensures the independence and autonomy** of resource providers. (SRIA V1.0, June 2021).

- The EOSC Steering Board (EOSC-SB) performs overarching analyses of the **main disruptive concepts and practices** connected to the construction and future operation of the EOSC.
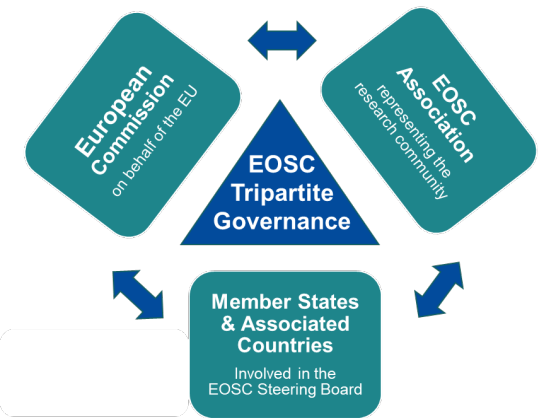
Policy Contributions by SB

The SB, SB-Committee, and SB subgroups elaborate and discuss policy issues as deemed of strategic relevance and urgency by the MS/ACs.

The outcomes are "Policy - or Opinion – Papers" that are futher shared and discussed at Tripartite level.

EOSC is a *PUBLIC GOOD* and the research FAIR data space *is subject to rules*, not reducing openness unless necessary, but *protecting value* of use and reuse.
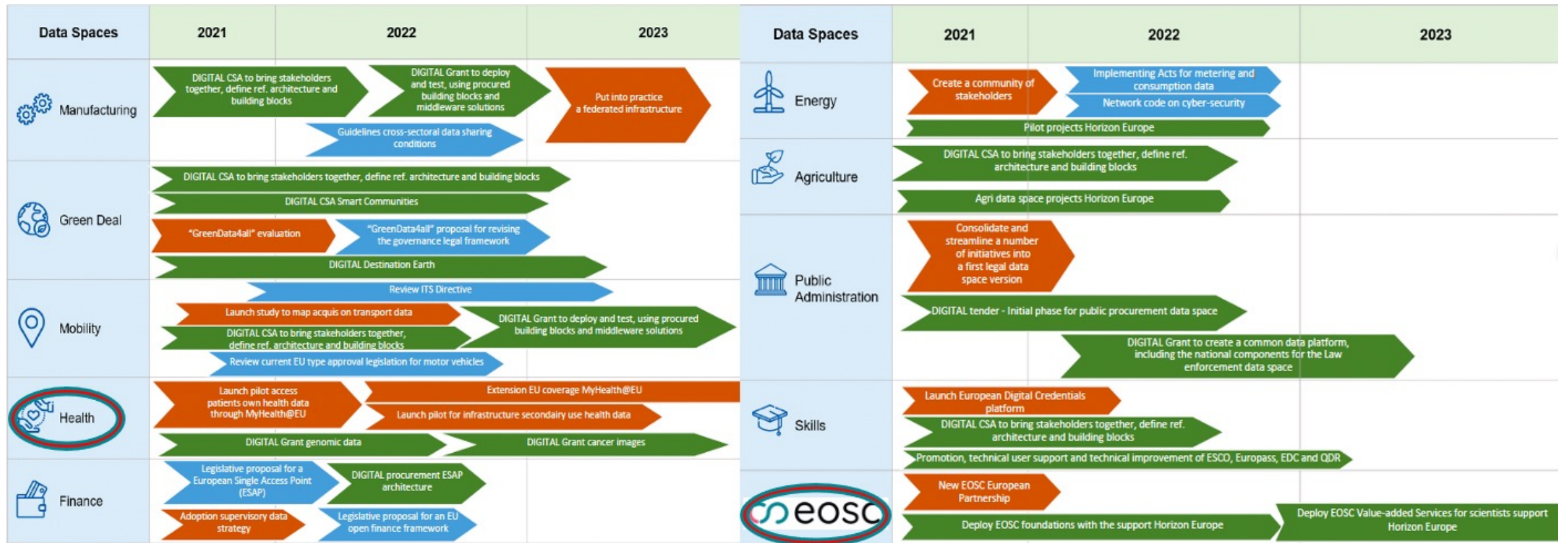
In order to implement and exploit EOSC *specific skills and general literacy* for the use of open data must be in place and the relationship with the *commercial sector* must be well structured.

***FAIR DATA PRODUCTIVITY* must be strengthened in order to cope with the ongoing process of *DIGITALIZATION OF RESEARCH* .**

Understanding the Context:
- European Data Spaces (sectorial) – risk of misalignment
- Commercial threat to Common Good – risk of coming late
- G7-focus on Research Security – qualify unrestrictiveness

Policy Papers 2022:

The foreseen benefits of EOSC for European research and innovation require transformative practices in several domains covering from **FAIR-by-design data collection technologies** to **FAIR data and service exploitation skills** as well as general **literacy** in the use of data and a responsible collaboration with the **commercial sector** to maintain the **public good** character of EOSC.

Also a unified and effective **monitoring system** needs to become a general service helping all partners (MS, AC, EC, EOSC-A) to verify the effectiveness of decisions and measures, the most promising developments, the alignment to the minimum viable solutions, and the **overall growth of research and innovation** prompted by EOSC.

The Policy/Opinion Papers of 2022 have been thoroughly discussed at Tripartite level and are now "living references" (updated as needed) for the enforcement of the actions.

Policy Paper on FAIR data sovereignty
https://data.europa.eu/doi/10.2777/32361

The Specific issue of **Sovereignty** on FAIR Data was chosen by EOSC-SB based on the perceived urgency to clarify all scientific, legal and operational implications of the "**as open as possible, as restricted as necessary**" paradigm.

Data sovereignty is a broad concept having to do with technical and legal frameworks that impact the data, their usage conditions and ultimately their ***effective fruition as common goods***.

The *EOSC sovereignty on FAIR research data* attributes to ***EOSC* and to the participating data-providers** the responsibility to **protect the value** of the FAIR datasets and related data services (e.g original quality of the FAIR data and its persistence during and after reuse) throughout the whole lifecycle of data exploitation.

Opinion paper on FAIR data sovereignty in EOSC
By the EOSC Steering Board expert group (E03756)

Independent Expert Report

EOSC Steering Board

Representing EU Member States and Associated Countries

Policy Paper on FAIR data sovereignty
https://data.europa.eu/doi/10.2777/32361

The EOSC-SFD is not a hurdle to open science, on the contrary it is meant to augment the notion of openness, persistent quality, and interoperability of FAIR research data.

Recommendations for implementation of rules on SFD

- An update of the European Charter for Researchers and of the European Charter for Access to Research Infrastructures is needed and EOSC-RoP must align with it.

- The EOSC dialogue with ESFRI Landmarks and e-infrastructures (e-IRG) will help defining the "*highly reliable set of suppliers of FAIR data and services*".

Implementation at national and Institutional level

- Creation of national catalogues of EOSC-related operators and services (archives, computing resources, competence centers…).

- Dissemination of good national practices and their sustainability strategy.

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Policy/Opinion Paper on FAIR data literacy
https://data.europa.eu/doi/10.2777/716842

Skills & Competences are needed for digital transition and EOSC. Holistic, coherent and visible education and training paradigm must be implemented and spread around the EU.

1. open data skills and competence for researchers at all career stages accelerate a stable and solid increase of open research data shared in line with the FAIR principles and re-usage of existing data;

2. sustainable support for researchers by data science and data management professionals;

3. mutual learning in the area of open science across Europe by creating respective networks and platforms;

4. awareness for FAIR data and data literacy to be enforced at the European, national, and institutional decision- and policy levels by training and nominating FAIR data / EOSC Ambassadors (Champions).

5. Provide a European framework for FAIR-data skills and competences (including matrices of the specific knowledge on technical, legal, ethical, social and sustainability issues) as a key element of open science policy;

6. Establish a European network of institutional and national Data Competence Centres and other related organisations providing support for data management in line with FAIR principles;

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Policy Paper on Commercial partners
https://data.europa.eu/doi/10.2777/04436

The EOSC is developed to be a public good: the European public research sector shall remain the driving force behind the EOSC construction and future service provision, as unrestricted as possible towards other contributions at for-profit or international levels. This should be seen in the context of the sovereignty of public research partners in the EOSC context.

Recommendations for implementation of rules on Commercial partners
- the participation of public research institutions to procurement calls under HEU to contribute/provide key elements of EOSC Exchange and Core, including possibly public-private partnerships. *(e.g. defining ownership of procured items post-2027)*

- Adapted rules of participation to procurement with advanced warning to allow public RPOs and RFOs to setup agreements to participate to the tenders.

- Verifying with RPOs and RFOs including pan-European RIs the *legal and practical possibilities to join in procurement agreements*.

- Verifying the effective synergies, if any, with GAIA-X to the scope.

Opinion paper on EOSC and commercial partners
By the EOSC Steering Board expert group (E03756)

Independent Expert Report

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Policy Paper on Monitoring Open Science

https://op.europa.eu/en/publication-detail/-/publication/2bcde3e1-7f53-11ed-9887-01aa75ed71a1

Rationale:

Deploy Open Science principles, Share best practices and monitor evolution;

MS/AC support the EOSC through financing/making available EOSC-needed e-infrastructures and research organisations, and through contributions to European policy developments. To recognize/share good practices and their evolution in the ERA.

Objectives: one-stop-shop for Open Science monitoring, identify gaps, make information as open as possible to all

Recommendations at national and institutional level:

- Enforcing Open Science at national and institutional level
- EOSC SB to discuss, communicate, validate, develop and refine common policies

Indicators and implementation target by 2024	Implementation target on national or sub-national[12] level	Institutional level		Share of countries having best practice use cases on Open Science
		Share of the country's RFOs[13]	Share of the country's RPOs[14]	
Policy on Open Access to publications - on mandatory OA to publications - on immediate OA to publications	100% MS/AC >75% of MS/AC >50% of MS/AC	100% 75% 50%	100% 75% 50%	100% 75% >30%
Policy on open data	100% MS/AC	100%	50%	>30%
Policy on data management	100% MS/AC	100%	75%	100%
Policy on FAIR data	100% MS/AC	100%	100%	>30%
Policy on open source software	100% MS/AC	50%	25%	100%
Policy on offering services through EOSC	25 % of MS/AC	25%	25%	25%
Policy on connecting repositories to EOSC	100% of MS/AC	50 %	25%	100%
Policy on data stewardship	>50% of MS/AC	50%	25%	>30%
Policy on long-term data preservation	Tbd	Tbd	Tbd	tbd
Policy on skills and training for Open Science	100% of MS/AC	50%	50%	100%
Policy on incentives and rewards for Open Science	100% of MS/AC	75%	50%	100%
Policy on Citizen Science	100% MS/AC	50 %	25%	100%

Policy issues addressed in 2023:
how to populate efficiently the FAIR data space with contents that may enable reliable Machine Learning / Artificial Intelligence tools for assisting research
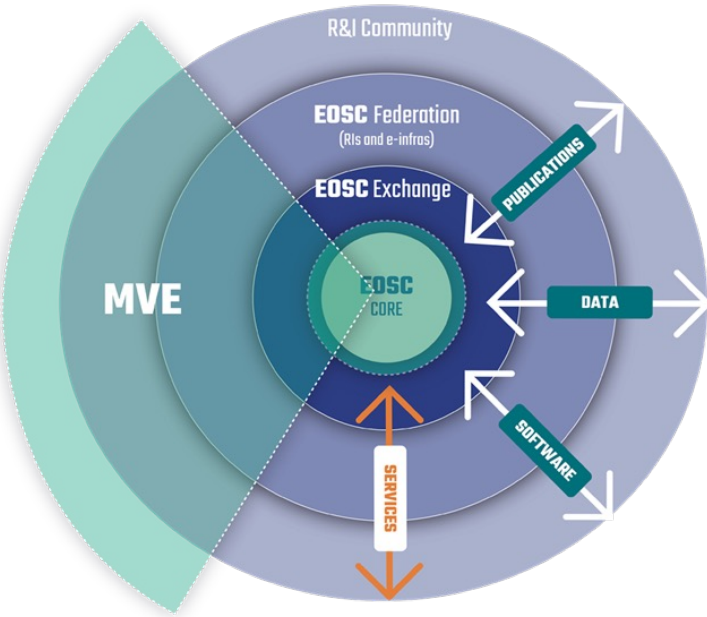
FAIR data productivity	Digitalization of research
• Identify most advanced doers and their productivity bottlenecks, being technological, organizational, sociological. • Identify the return in extra value of input data when FAIR and delivered to FAIR archives • Identify sector-specific issues on FD productivity • Identify the investment level required to enhance productivity • Identify achievable goals of productivity (per cent of new data) for 2027	• Discuss with RIs (Landmarks) and e-IRG the options of advanced digitalization like Machine Learning services and the Automated Research Workflows. • Set goals for research and fallouts towards innovation and society • Explore with industrial sector the digitalization of R&D

Implementation by 2027 and beyond

What model organization for what EOSC functions?
Which EOSC functions might be fulfilled by what organization?
What subject shall enforce the SB-Tripartite policies?

EOSC shall fulfill the double goal of having an operational system-of-systems that guarantees service (the Minimum Viable EOSC) and to foster research in data exploitation and reuse (interoperability, FAIRness).

This shall require a **robust** organizational and financial solution that can perform procurement and investments, and have **operational capabilities**, face competition with the **commercial sector**. This cannot be based on EC grants. Art. 185 and art. 187 of EU Treaty are discussed as options, as well as temporary solutions to bridge the gap 2026-2028.

The work of SB is important as well as the contribution of natinal experts to the subcommittees!

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2022 Statement

We, the EOSC Steering Board collectively:

- **Recognise** EOSC as the overarching transverse European Data Space for research. EOSC shall be implemented as orthogonal and supplementary to the thematic European Data Spaces, which in turn should capitalise on expertise and solutions developed in the context of EOSC.

- **Recognise** EOSC to be an accelerator of the digital transition, comprising FAIR digital objects as well as people with data science and management competences.

- **Reaffirm** the importance of the sovereignty of the research sector as FAIR data provider in EOSC

- **Invite** to open EOSC to the public sector at large and to partners from the commercial sector that are dedicated to Open Science, considering them as providers and users of the EOSC ecosystem, which is developed to be a public good.

- **Call** all research and innovation stakeholders to commit to making Open Science the new normal, and to achieve this goal develop and deploy the necessary science policies and supplementary financial investments.

- **Commit** to support the progress towards Open Science and the advancement of EOSC implementation by facilitating monitoring, exchanging practices, and promoting mutual learning across countries and communities.