Steering Board Policy Issues 2022

The SB has identified 3 Policy Issues to be addressed as building blocks of the TriPartite (3P) strategy for 2022:

a) **Data literacy including definitions and the potential of education and teaching**
b) **EOSC and the private sector**
c) **EOSC sovereignty on FAIR data**

Three discussion papers have been drafted by a SB-policy-subgroup for the SB to discuss and eventually converge on
proposals that, also through contributions matured at national level, will be inputs to the 2022 3P conference in
November 2022 and subsequently finalised as position papers.

GR;   e-IRG session on EOSC – 30/5/2022

Timeline for SB opinion papers

- *May: consult relevant EOSC-SB delegates and other stakeholders*
- *TODAY discussion with e-IRG*
- *2/6: Committee SG #11 discusses draft opinion paper*
- *3/6: draft opinion paper distributed to EOSC-SB*
- *17/6: draft opinion paper discussed with EOSC-SB in meeting #11*
- *21/9: updated opinion paper discussed for preliminary opinion by the EOSC-SB in meeting #12*
- *14/11: the policy issue is communicated in the Tripartite event/EOSC Symposium together with a declaration of engagement on the objectives and recommendations to 2024;*
- *15/12: final opinion obtained by EOSC-SB in its meeting #14*
- *January 2023: opinion paper is annexed to the expert group progress report and published publicly.*

# Policy issue 1 (Pi1): EOSC Data literacy including definitions and the potential of education and teaching

- General objectives of the Partnership are: rewarding and teaching of Open Science practices and skills; promoting presence of Data Stewards at RPOs

- The SRIA recommends that a sustainable EOSC skills and training strategy must address different professional and research roles as well as their functioning in an organizational or team setting

- "Skills and training" means developing the next generation of Open Science and data professionals, coordinating training and aligning curricula for students and researchers; building a trusted and long-lasting knowledge hub of learning materials and related tools; influencing national Open Science policy for skills by supporting strategic leaders;
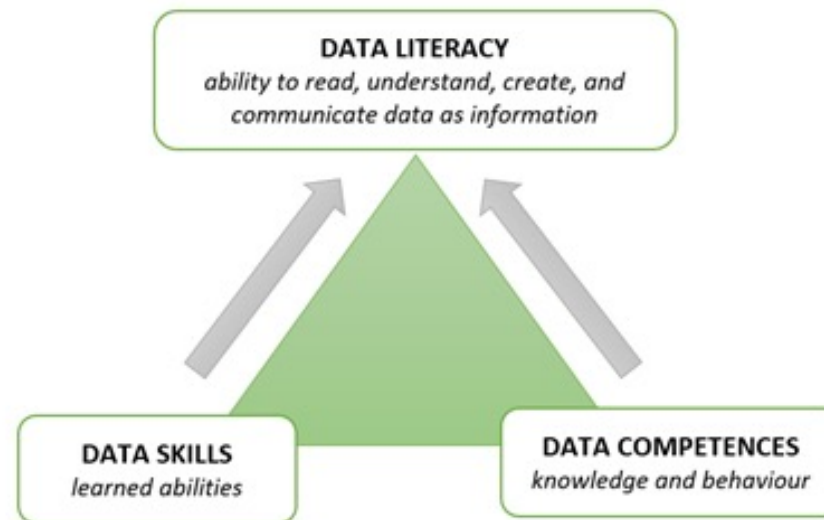
Pi1 - Objectives to be achieved by 2024

- Diffuse open data skills and competences for researchers at all career stages to enable stable increase of FAIR research data shared and re-used;
- Provide support for researchers by developing Open Science professionals with well-defined roles and responsibilities;
- Develop mutual learning standards in the area of Open Science across Europe (networks and platforms);
- Increase of EOSC-related awareness among the European, national and institutional decision- and policy makers also by educating and training the Open Science / EOSC Ambassadors (Champions) selected among them.

EOSC–relevant policies in place at national or regional level
Policy addresses Skills and competencies
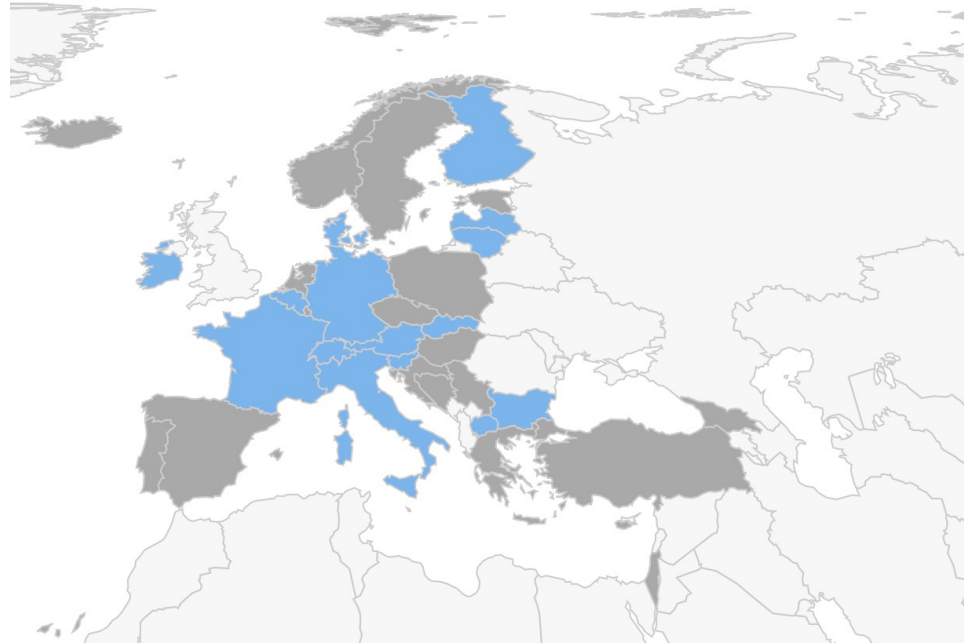
Pi1 – recommendations at European level

- Standardization framework for open science skills and competences based on clear definitions of roles and responsibilities of open science professionals and their skills and competences;

- Collaboration among the national data professionals by a European network of institutional and national Data Competence Centres;

- Alignment of standards with a European Exchange Platform and Training Catalogue (e.g. EOSC Future project);

- Strengthening the collaboration between research communities e.g. via Science Clusters);

- Incorporating open data-related competences in the framework of European programmes of digital education as well as students and academic staff exchange (for instance, Digital Education Action Plan 2021-2027, Erasmus+ programme);

-   providing European programs for Open Science / EOSC Ambassadors trainings;

Pi1 – recommendations at national level and institutional level

- alignment of national Open Science and EOSC-related policies in the area of data-literacy;

- development of models of career paths that intertwine formal, nonformal and informal education for Open Science professionals;

- building research support staff capacity centers that provide training for new FAIR data professionals and upskilling training for the current professionals;

- creating frameworks for recognition of open data skills and competences;

- development of discipline/domain-oriented learning programs incorporating data-literacy in the curricula of MA and PhD students.

- [RPOs] providing basic and upskilling trainings for Data Stewards, Data Curators, Research Software Engineers;

- [RPOs] building and supporting data / digital competence centers;

- [RFOs] implementing Data Management Plans in the application forms along with respective guidelines.

Policy issue 2 (Pi2): EOSC and the private sector   Links to Pi1, Pi3

Clarify the distinct and common ground between EOSC, GAIA-X and EuroHPC
Identify possible synergies and diverging interests of EOSC and
commercially oriented initiatives
Potential harmonisation of EOSC and EuroHPC policies (e.g. RoP)

EOSC Memorandum of Understanding states that additional private investment shall be
mobilised to exploit or scale-up partnership results.

SRIA underlines that to realise its full potential, EOSC will be widened beyond the European
research community to the broader public sector and to the private sector (stimulate industrial
collaboration projects and the inclusion of SMEs and developers in the design and
implementation of specific EOSC software applications and components).

Pi2 - Objectives to be achieved by 2024

Develop an open science playground as an EOSC service for researchers and companies to attract and stimulate collaboration on research data for the benefit of commercial and scientific innovation.

Pi2 – recommendations at European level

- The European public research sector remains the driving force behind the EOSC service provision;
- Perform a SWOT analysis of procurements in Horizon Europe as a tool to support EOSC core activities;
- Review the RoP in EOSC in view of the proper role commercial providers in EOSC;
- Explore connections, collaborations and synergies with GAIA-X.

Pi2 – recommendations at national level

- national investments into the private sector for FAIR data service provision shall co-align with the EOSC;
- SB delegates engage in national discussion (e.g. in national tripartite meetings) about the role of private providers of EOSC core services and on appropriateness of procurement in the Horizon Europe INFRA-EOSC 2025/2026 work programme;
- Discussion of contributions and commitments to GAIA-X (interface between EOSC and national GAIA-X hub) and other commercially oriented initiatives.

Policy issue 3 (Pi3): EOSC sovereignty on FAIR data (SFD)   Links to Pi2, Pi1

The COVID crisis underlined the critical role of the governance of digital data. How data is collected, by whom, for what purpose, how it is accessed, shared and re-used have become central questions… as well as the dependency on non-European collaborative platforms and market polarisation on big digital platforms… when using these tools, Europeans provide valuable intelligence to the platform operators who have been able to gather additional intelligence about every aspect of the European economy and society, which they can use for profiling, targeting - or manipulation…

At EU level great attention is paid to technological and data sovereignty. The **Data Governance Act** aims to foster the availability of data for use by increasing trust in data intermediaries and by strengthening data sharing mechanisms across the EU.

A **Single Market for Data** would ensure that data from the public sector (including publicly-funded research data), businesses and citizens can be accessed and used in the most effective and responsible manner possible, while businesses and citizens keep control of the data they generate and investments made into their collection are valorised. The broad application of the FAIR principles, used in a pervasive way across the EOSC, is necessary to enable the re-use of research data by promoting that they be findable, accessible, interoperable and re-useable.

Data sovereignty can be defined as:

- the power to make decisions about how digital processes, infrastructures and the movement of data are structured, built and managed;

- the ability for the data holder to decide which data to share, with whom and under what conditions;

- the ability of a state, country or international organisation to ensure perpetual access to and manage its data

- the notion that data are governed by rules.

Data sovereignty might augment the notion of openness and interoperability of research data with:

- ownership, in particular for personal or sensible data;

- effective/adequate control of the data flows and usage, including of where the data are being used and under which laws (national or extraterritorial), where computation on the data is being performed, and where the new data and metadata are stored;

- applicability of legal rules over data infrastructures, in particular when they are operated in cloud environments, including eventual data geo-localisation requirements;

- relationship to the commercial sector in a level playing field, avoidance of vendor locking solutions and appropriated community ownership of key scholar infrastructures.

Pi3 – recommendations at European level-1

EOSC-Sovereignty on FAIR research Data (EOSC-SFD) is a proposal for policy convergence across the member states and associated countries to cope with data sovereignty issues in the implementation of EOSC.

FAIR is the common language for data sharing and reuse in the EOSC ecosystem. FAIR data resources in EOSC deserve special attention considering their high intrinsic value: value for reuse and value arising from the FAIRification process itself. FAIR data represent an investment by RPOs, research infrastructures or other public agents including public research funders at regional, national or European levels.

EOSC-SFD should be built for establishing an EOSC ecosystem in which FAIR data is made available, collated and shared in a trustworthy environment and where the users always retain sovereignty over their data.

Pi3 – recommendations at European level-2

Implementing the EOSC-SFD could encompass aspects like:

- Meaningful control and tagging of data quality and persistent integrity as a key asset in the EOSC ecosystem;

- Physical meta-geo-localization in the EU and Associated Countries of FAIR data services and FAIR-compliant repositories and ownership of data and services by EOSC partners in a cloud that is overall "known";

- Promoting clear conditions and common supporting tools for licensing, preservation of IPR and recognition of authorship of FAIR research data in the EOSC ecosystem;

- Effective control over the technical infrastructure holding the data including the software needed for access;

- Promoting common tools on how to deal with personal data for research purposes in full GDPR compliance (privacy requirements and informed consent limitations);

- Promoting and evolving the EOSC Interoperability Framework (including best practices for legal and technical interoperability) supporting full FAIRification of 'relevant' licensed data sets; clarifying general principles to prioritise what type of data shall be made FAIR-by-design.

Pi3 – recommendations at all levels - 1

EOSC-SFD should be acted by:

- All partners involved in the EOSC tripartite governance;

- EOSC Partnership shall monitor that the IT architecture and services must cope with EOSC-SFD needs;

- Research communities including RPOs, RIs, learned societies;

- Developers and operators of the EOSC platform and the EOSC federation.

With instruments like:

- Common guidelines for uptake by national programmes and national funders;

- Updated national policies and EOSC-SFD implementation strategies;

- Updated EOSC Rules of Participation and onboarding processes;

- Engagement (dedication) accelerated through European and national tripartite events;

- Procurement and tenders of IT solutions and services;

- Investment in quality control solutions as well as in skills and data stewardship at European, national and institutional levels.

Pi3 – recommendations at all levels - 2

- EOSC "Rules of Participation" shall adapt to the evolving quality standards in discipline and communities. The initial phase shall define a highly reliable set of suppliers of FAIR data and services who agree on quality-control criteria of the datasets to be made FAIR and accessible through appropriate policy.

- At national level, the contributors to EOSC shall be clearly identified (geo-localized, fully described for capacity, technology, policy, and legal constraints); the list of national EOSC-ready nodes (computing, storage, services) shall be constantly updated and communicated to EOSC.

- At institutional level, the readiness to contribute with contents (FAIR data sets) and services shall be qualified and quantified. Sustainable efforts shall be described to cope with FAIR principles, to adopt FAIR-by-design solutions, to invest in data stewards. Institutes shall interact both at the national level and directly with EOSC. (EOSC-A, national mandated org., RIs…).

- EOSC Steering Board shall in 2024 evaluate the effectiveness and efficiency of the Pi1,2,3 objectives and recommendations for the implementation of EOSC.