



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR RESEARCH & INNOVATION

The Director-General

Brussels, 26 October 2017

EOSC Declaration Action List

Data culture

European science must be grounded in a common culture of data stewardship, so that research data is recognised as a significant output of research and is appropriately curated throughout and after the period conducting the research. Only a considerable cultural change will enable long-term reuse for science and for innovation of data created by research activities: no disciplines, institutions or countries must be left behind.

- ✓ OpenAIRE offered to help to involve research libraries for policy alignment and for a user-driven approach that also reach the 'long tail of research'.

Skills

The necessary skills and education in research data management, data stewardship and data science should be provided throughout the EU as part of higher education, the training system and on-the-job best practice in the industry. University associations, research organisations, research libraries and other educational brokers play an important role but they need substantial support from the European Commission and the Member States.

- ✓ The League of European Research Universities (LERU) offered to raise awareness and help develop training activities for staff and doctoral students.
- ✓ CESSDA offered to help coordinate and organise trainings across ERICs.

FAIR Data governance

The design and implementation of FAIR principles must be built upon inclusive stakeholder participation (e.g. researchers from different scientific disciplines, EU Member States and the European Commission). Policy will go hand in hand with the implementation of technical and human resources, and a social infrastructure including education and training. To make FAIR data a reality, it is imperative to engage stakeholders and relevant multipliers, based on a solid stakeholder engagement strategy, on inter-institutional arrangements, well-established frameworks and decision making flows. Data governance needs to be agreed upon and the division of responsibilities be charted, ensuring transparency, representativity and accountability. European and national scientific research organisations, publishers and other actors must align their data-related business processes, responsibilities and expectations to achieve commonly agreed goals.

- ✓ OpenAIRE offered to facilitate open science of coordination based on a network of 34 countries we want to see EOSC have a stronger commitment.

Implementation & transition to FAIR

Implementation of FAIR principles requires careful prioritisation and orchestration. The FAIR Data Action Plan 2018-2020 is an important collaborative instrument for the embedding of FAIR principles in the first phase of the EOSC. The plan will not necessarily suggest any specific technology, standard or implementation solution. For an even transition of data from different levels of maturity to FAIR, existing activities to make data FAIR (e.g. GO-FAIR) must be complemented by new initiatives that embed FAIR principles in all the phases of data life cycle.

- ✓ The Swiss National Science Foundation offered to coordinate policies on what repositories can be used (freedom for researchers).

Research data repositories

Trusted research data repositories play a fundamental role in modern science. Scientist must be able to find, re-use, deposit and share data via trusted data repositories that implement FAIR data principles and that ensure long-term sustainability of research data across all disciplines. Data repositories must be easy to find and identify, and provide to users full transparency about their services.

- ✓ The Austrian Science Fund offered to work to extend Re3Data to better understand the data repository landscape.
- ✓ The German Research Foundation (DFG) offered to contribute and fund updating of Re3Data.

Data Management Plans

A key element of good data management is a Data Management Plan (DMP); the use of DMPs should become obligatory in all research projects generating or collecting publicly funded research data, based on online tools conforming to common methodologies. Funder and institutional requirements must be aligned and minimum conditions for DMPs must be defined. Researchers' host institutions have a responsibility to oversee and complete the DMPs and hand them over to data repositories.

- ✓ The Netherlands Organisation for Scientific Research (NWO) offered to contribute to coordination of criteria for Research Data Management.

User needs

Users should see the EOSC as a one-stop-shop to find, access, and use research data and services from multiple disciplines and platforms. Services and functionalities shall be user driven and determined by clear use cases. Intermediary users and other brokers of end-users' demand – IT departments, umbrella associations, community networks – should assist data scientists and ICT specialists in the identification of key requirements for EOSC services.

- ✓ PLAN-E & eScience Center offered to help support scientists to translate scientific requirements into practical services and infrastructural components.
- ✓ GEO offered to contribute as a broker for interdisciplinary domains: a) climate changes, b) disaster risk reduction & c) sustainability development goals strategic targets to help define and serve concrete user needs.

Service deployment

The EOSC shall support different deployment models (e.g. Infrastructure as a Service, Platform as a Service, Software as a Service), to meet the needs of communities at different levels of maturity in the provision and use of research data service. The EOSC shall support the whole research lifecycle by strong development at platform level that facilitate the provision of a wide set of software, infrastructure, protocols, methods, incentives, training, services. Software sustainability should be treated on an equal footing as data stewardship.

- ✓ OpenAire offered to share its experience in supporting research data sharing along the whole Open Science life-cycle.

Thematic areas

The EOSC shall promote the co-ordination and progressive federation of open data infrastructures developed in specific thematic areas (e.g. health, environment, food, marine, social sciences, transport). The EOSC will implement a common reference scheme to ensure FAIR data uptake and compliance by national and European data providers in all disciplines.

- ✓ PLAN-E offered to help and promote implementing FAIR principles for data and software across all domains.

Governance model

A long-term, sustainable research infrastructure in Europe requires a strong and flexible governance model based on trust and increasing mutuality. As interdisciplinarity is one of the main objectives of the EOSC, the governance model should be based on representativity, proportionality, accountability, inclusiveness and transparency.

- ✓ GEO offered to contribute to the development of governance by providing & sharing their lessons.