CESAER

SHAPING THE EUROPEAN OPEN SCIENCE CLOUD (EOSC)

STATEMENT DATED 24TH JANUARY 2018

On 26th October 2017, the European Commission (EC) made the European Open Science Cloud (EOSC) Declaration available for endorsement and commitments to the realisation of the EOSC by 2020. Scientific stakeholders have endorsed the Declaration and first signatories - amongst which CESAER - have signed up to play a role in the EOSC coalition of doers. With this statement, the universities of science & technology united within CESAER contribute to the ongoing shaping of the EOSC.

Recalling our Statement on Long-Term Sustainability (LTS) of Research Infrastructures (RI) dated 9th December 2016, we underline that we (co-) design, (co-) host, (co-) operate, (co-) own, (co-) evaluate (both the quality of data as well as whole infrastructures), (co-) govern etc. significant systems that should co-form the EOSC. Moreover, we help defining and adherence to standards and educate, train and employ key talent for the EOSC. We thus constitute essential stakeholders for its successful implementation.

FEDERATED AND DECENTRALISED APPROACH NEEDED

The EOSC should build upon existing bottom-up science-driven communities and structures (such as at our universities and the ESFRI Roadmap). The EOSC must take a federated and decentralised approach directed towards providing tangible and non-bureaucratic services to researchers and S&T professionals. The EOSC should be governed as a non-profit organisation. Governance, processes and procedures should be transparent and decisions should be made transparently. In the development of any infrastructure, it's important to consider not only the technical infrastructure (hardware, software, environment), but also the organisation (policies, procedures, adequate staffing and skills) together with the resources needed to implement it, including core funding for essential shared services rather than project based funding.

ENSURE BROAD DEFINITIONS AND SCOPE

The EOSC should enable and boost open science in general ensuring broad definitions and scope. Not only (open) Research Data Management (RDM) is to be considered, but processes, software, protocols, data stewardship and methodologies are often integral part of research and necessary to ensure research reproducibility. The danger is to focus on the technical aspects only and to forget human and cultural factors. The EOSC needs to recognise that shortages in research data skills are not only related to data science and High Performance Computing (HPC), but also related to broader data stewardship. Awareness raising, training and discussion thus should be encouraged at all levels. Valuable research outputs are not limited to datasets. Importantly, the EOSC should be a genuinely global (not only European) undertaking effectively contributing to achieving the United Nations Sustainable Development Goals (UN SDGs).

FAIR AND SECURE DATA PRINCIPLES ARE CENTRAL

Acknowledging the aim of making data ´as open as possible, as closed as necessary´, the true challenge lies in applying FAIR Data Principles and finding and sometimes stretching the existing boundaries in collaborations between private and public parties. Such focus on the FAIR and secure data principles are more adequate than on open data.

BOOST INTEROPERABILITY AND INTER-DISCIPLINARY RESEARCH

Building on existing infrastructures and systems, the EOSC should ensure interoperability, service integration for researchers not working with big data and fill the gaps of disciplines and communities that lack organisation to raise them to advanced levels. Most discussions about infrastructures and tools to support researchers were centred on inter-disciplinary big data projects. Especially for engineering and technical sciences, the approach has to be holistic: interoperability of RIs and tools, as well as the alignment of data standards, metadata standards and controlled vocabularies and deposited documentation and other contextual information are vital for fostering collaboration and facilitating greater re-use in any type of research. It is essential that curation tools are developed to foster greater integration across disciplines and to support long-term preservation. We need to work on interconnections and interfaces and we universities of science & technology do have the experts for this in our IT services & computing centres and libraries. Finally, tools must be developed to meet the needs of researchers in a multitude of science and innovation disciplines in academia and companies, and not in isolation of these community's needs. This involves taking into account the needs of researchers and the establishment of corresponding funding opportunities: we plea for a considerate and balanced approach between ensuring basic provider-driven infrastructure on the one side and eligibility of costs in principal investigator-driven and competitive research grants on the other.

ESTABLISH ALTERNATIVE METRICS, INCENTIVISE BEHAVIOUR & OUTPUT AND TRAIN TALENT

Open science is not another sort of science, but the way we want current science to be done. We must avoid opposing open and excellent science and therefore welcome the introduction of pilot funding schemes recognising the commitment to open science practices. We are committed to establish alternative metrics and incentivise behaviour and output of our researchers accordingly, including career paths for data stewards within science domains and institutes, and will incorporate open science criteria in institutional hiring and promotion practices. Discussions about training needs were mostly focused on data science and HPC skills. However, good data stewardship is much broader than data science and includes the ability to deal with data privacy issues, data ownership and licensing, data management workflows, review of data management plans, data curation, metadata standards, data publication and others.

For more information, please contact our Vice President Research or our Secretary General.