

## Workshop “Co-creating the EOSC: Needs and requirements for future research environments”: Synthesis of the takeaway messages

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**Feldkirch, Austria, 13 January 2020**

The EOSC initiative aims at supporting more than 1.7 million researchers and boosting interdisciplinary research in Europe. To better understand what the research community needs, the [EOSC Secretariat](https://www.eoscsecretariat.eu/)<sup>1</sup> partner [TU Wien](https://www.tuwien.at/en/)<sup>2</sup> is organizing a series of workshops. The first [by-invitation-only workshop](#)<sup>3</sup> took place on 13 January 2020 in Feldkirch in Vorarlberg, Austria: a small group of **20 European top-level researchers coming from different domains** with a focus on natural and technical sciences was invited to brainstorm about the **actual needs in their current research** as well as about **future needs and requirements** concerning research infrastructures, and services. The findings will feed directly into the work of the EOSC Executive Board (EB) and Working Groups (WGs), thus provide input crucial for the development of the EOSC. However, participants of the workshop get the chance to feedback the report until the end of February 2020 before doing so. Preliminary key findings include:

- **Impact of research in society:** the discussions covered qualitative means of increasing impact as well as measuring impact by metrics and evaluation. Both concepts have to be explored, even though empathy, transparency and the mediation of research metrics might have a bigger impact on the public status of research than data quality or quantitative ways of measuring impact.
- **Communication and language barriers:** Language barriers are hurdles of current research. EOSC can help getting rid of these barriers by providing researchers with advanced translation services. Other translation services that can be useful include math translation services, horizontal translation services (translate domain specific technical terms of research outputs across disciplines or to policy makers), vertical translation services (personal communication services), automatic metaphor translation and ontology mapping. Virtual environment services can support sophisticated interaction between researchers.
- **Re-definition of the roles of researchers and AI in research processes:** AI will have increasing impact in research. Machines will definitely automate many things in the near and distant future. Thus, the roles of researchers and AI in research processes will change. Consequently, rules need to be established to regulate what researchers and machines are supposed to do.
- **Trusted data frameworks:** It is crucial that EOSC finds ways of dealing with open access and automated access guided by clear and transparent Rules of Participation. Without trust in the quality of data and the quality of services, EOSC will not succeed. However, researchers cannot be forced to open all of their data (e.g., sensitive data; data that cannot be anonymized).
- **Sustainable data frameworks:** The climate crisis, the extinction of species, global poverty and social inequality are only a few of the challenges that humankind has to face in the 21<sup>st</sup> century. Research plays a crucial role in facing these challenges. Against this background, EOSC has to be a vehicle to join forces in order to help transform individual research efforts to collective efforts by e.g. offering a database to collect pressing research questions. In addition, sustainability touches topics such as

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<sup>1</sup> See <https://www.eoscsecretariat.eu/>

<sup>2</sup> See <https://www.tuwien.at/en/>

<sup>3</sup> See <https://www.eoscsecretariat.eu/events/what-do-our-researchers-want-workshop-%E2%80%9Ccollect%E2%80%9D-needs-requirements-and-visions-ideal-future>

data storage capacities and cost/benefit ratios. Redundancies or the duplication of efforts must be eliminated.

- **Legal frameworks, guidelines and Rules of Participation (RoP):** EOSC has to work out transparent legal frameworks and establish concrete guidelines and RoP that support their implementation in the EOSC. Thus, positions on how to use data or how to contribute data need to be explicit. In addition, EOSC needs to impede market dominance for any stakeholders or any participants in the EOSC framework. In order to involve Citizen Scientists it is essential to set up trusted validation processes and guidelines on how to gather data. Otherwise, researchers will refrain from the use of datasets provided by Citizen Scientists.

*The Workshop was organized by Paolo Budroni, Katharina Flicker, Juliana Giroletti, Andreas Rauber (PI), Barbara Sánchez, Bernd Saurugger (EOSC Secretariat/TU Wien) – Date of release of DOC: 2MAR2020*

*All related documents to the Workshop will be available in the full report, to be released in March 2020.*

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