

EOSC Researcher Engagement: Lessons Learned and Strategy Recommendations

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1 Executive Summary

This report provides the strategy behind various researcher engagement activities of the EOSC Secretariat coordinated by TU Wien, lists impact and results and identifies challenges related to researcher engagement as well as proposed solutions/engagement strategies, all of which are based on the evaluation of past activities: Workshops, consultations and exploration series. Details on these activities can be found in the reports listed under section 2.2 *Results: a link collection of reports, key takeaway messages and interviews*.

The evaluation of previous researcher engagement activities made it clear that researchers were sceptical, lacked understanding of potential benefits or simply did not care due to provided information being too abstract, scattered and opaque. Details on the issue can be found in section 3 *Challenges in Researcher Engagement*.

While standard marketing and dissemination approaches did not work, unconventional and bottom-up approaches appeared to be successful (see section 4 *Lessons Learned: What (Not) To Do*). It is thus recommended to:

- ✓ inquire further about researchers' immediate needs and requirements in daily research work to ensure the EOSC meets their needs and expectations and allow them to really shape the EOSC
- ✓ intensify vision generation processes, creative brainstorming in order to imagine futures and to reveal the potential of such a major endeavour as represented by the EOSC
- ✓ establish researcher engagement as a continuous activity in the form of workshops, consultations and explorations to accompany the creation and steer the evolution of the EOSC
- ✓ implement a Vision Strategy Board that considers technical, ethical, legal and societal impact of the EOSC
- ✓ set up an ambassadors' program to engage whole research communities via their accepted and respected peers
- ✓ present actual results and services, rather than marketing and strategic reports

2 Introduction – Previous activities

The European Open Science Cloud (EOSC)¹ initiative aims at supporting more than 1.7 million researchers and fostering interdisciplinary research in Europe. To understand better, what the research community

¹ See <https://ec.europa.eu/digital-single-market/en/european-open-science-cloud>

needs, the EOSC Secretariat partner TU Wien² organized workshops³, consultations and an *Exploration Series*⁴. With all activities related to *Researcher Engagement*, objectives were to

- ✓ establish ways of communication that involved researchers in the co-creation of the EOSC and to elicit their visions, needs and requirements, thus ensuring the EOSC would be accepted and appreciated as meeting their needs
- ✓ outreach to researchers and their communities via multipliers and testimonials (in order to establish a network, strengthen support for the EOSC initiative and make it better known)
- ✓ identify current barriers and services considered essential for a well-functioning EOSC
- ✓ identify (EOSC related and stakeholder-relevant) topics for further discussion as well as services needed for cutting-edge research
- ✓ obtain a better understanding on how research is changing
- ✓ elaborate visions on how research will be conducted in 5 to 15 years and what the effect and impact on research infrastructures will be
- ✓ provide all findings as seeds for public comments to involve an even larger stakeholder community
- ✓ feed all results directly into the work of the EOSC governance bodies and the EOSC Working Groups (WGs), providing input crucial for the development of the EOSC

The strategy to achieve this was to reach out to the community along three main and a fourth auxiliary axis so that all stakeholders would find themselves represented and feel included. The three key strategic axes were *disciplinarity* (covering all scientific domains in a reasonable manner), *seniority* (include excellent researchers at different career stages), *research-affinity* and *geographic spread* as well as *gender balance*.

Research-affinity referred to identifying interview partners with different perspectives, from active researchers for whom research still was their day-to-day primary activity, to researchers who had switched to a slightly different focus and with a potentially more long-term vision, from university administrators, policy makers, to academics who (also) became successful science fiction authors.

Geographic spread and *gender balance* were not a prime filter criterion, but were considered, when setting up candidate lists after having brainstormed pools for the main three categories, ensuring to also get outside-of-Europe perspectives, and to identify potentially differing needs and perspectives from a gender perspective.

In the following, this strategy outline shows the impact achieved, summarizes the key findings of all researcher engagement activities such as a link collection to already published results and a table of topics identified and discussed along with relating services.

2.1 Impact

The workshops, consultations and the *Exploration Series* were extremely successful in providing input to the EOSC, whilst having prominent persons acting as testimonials, multiplying outreach efforts:

² See <https://www.tuwien.at/en/>

³ See <https://www.eoscsecretariat.eu/co-creating-eosc-workshops-researchers-and-university-networks>

⁴ See <https://www.eoscsecretariat.eu/news-opinion/online-session-visions-requirements-and-needs-future-research-environments-healthcare> (online session with experts from the healthcare domain), <https://www.eoscsecretariat.eu/news-opinion/visions-needs-and-requirements-series> (explorations with top-level researchers) and <https://www.tuwien.at/en/research/rti-support/research-data/news/news/what-do-science-fiction-authors-say-about-future-research-environments> (explorations with academics, who are also successful Science Fiction authors).

- ✓ This year to date the EOSC Secretariat has an average of 2000 views of tweets/impression and 7 likes per day. The tweet about the exploration with Science Fiction-Author Cory Doctorow, however, was viewed 23140 times and received 23 likes. It is thus the most viewed tweet of all.
- ✓ All reports on Researcher Engagement activities published in 2020 are among the ones most viewed on Zenodo. They are number 5, 7, 9 and 16 of all 57 reports uploaded on Zenodo as part of the EOSC Community⁵. In addition, they are in the top 25% most viewed publications of all 312 publications uploaded on Zenodo as part of the EOSC Community.
- ✓ The engagement concept described in *1 Introduction – Previous activities* was adopted by other groups who now want to e.g. run similar workshops, suggest interview partners and are keen on learning more about further researcher engagement activities.
- ✓ Other (EOSC-related) projects started to consult the EOSC Secretariat partner TU Wien regarding the planning of researcher engagement activities.

2.2 Results: a link collection of reports, key takeaway messages and interviews

Co-Creating EOSC: University Networks shaping EOSC

- ✓ Report: <https://zenodo.org/record/3693914#.YF2JFq9KiUI>
- ✓ Key Takeaway Messages: <https://zenodo.org/record/3701269#.X2MhrmgzaUk>

Co-Creating the EOSC: Needs and requirements for future research environments

- ✓ Report: <https://zenodo.org/record/3701194#.YF2J q9KiUI>
- ✓ Key Takeaway Messages: <https://zenodo.org/record/3701269#.X2MhrmgzaUk>

Visions, requirements and needs for Future Research Environments in the Healthcare domain

- ✓ Report: <https://zenodo.org/record/4015121#.X1Ndl8gzaUI>
- ✓ Key Takeaway Messages: <https://doi.org/10.5281/zenodo.4030301>

Visions, needs and requirements for (future) research environments: An Exploration Series with Researchers

- ✓ Report: <https://zenodo.org/record/4336705#.X-B U9hKiUI>
- ✓ Key Takeaway Messages: <https://zenodo.org/record/4337176#.X-B VthKiUI>
- ✓ Interviews with Researchers:

Emanuele Campiglio (ERC grantee, Economics and Business): [DOI 10.5281/zenodo.4520901](https://doi.org/10.5281/zenodo.4520901)

Martin Carver (ERC grantee, Archaeology): [DOI 10.5281/zenodo.4534857](https://doi.org/10.5281/zenodo.4534857)

Elena Esposito (ERC grantee, Sociology): [DOI 10.5281/zenodo.4534175](https://doi.org/10.5281/zenodo.4534175)

Joachim Frank (Nobel Laureate, Biochemistry): [DOI 10.5281/zenodo.4516552](https://doi.org/10.5281/zenodo.4516552)

Richard Hodges (ERC grantee, Archaeology): [DOI 10.5281/zenodo.4525347](https://doi.org/10.5281/zenodo.4525347)

Poul Holm (ERC grantee, History): [DOI 10.5281/zenodo.4525683](https://doi.org/10.5281/zenodo.4525683)

Kristian Bernt Karlson (ERC grantee, Sociology): [DOI 10.5281/zenodo.4522065](https://doi.org/10.5281/zenodo.4522065)

Isabel Krug (Marie Curie Fellow, Clinical Psychology): [DOI 10.5281/zenodo.4540952](https://doi.org/10.5281/zenodo.4540952)

⁵ Numbers viewed on 23 Mar 2021, 08:50

Elise Muir (ERC grantee, European Law): [DOI 10.5281/zenodo.4518620](https://doi.org/10.5281/zenodo.4518620)

Valeria Pulignano (ERC grantee, Sociology): [DOI 10.5281/zenodo.4531573](https://doi.org/10.5281/zenodo.4531573)

Ottavio Quirico (Marie Curie Fellow, International Law): [DOI 10.5281/zenodo.4506619](https://doi.org/10.5281/zenodo.4506619)

Saket Saurabh (ERC grantee, Theoretical Computer Science): [DOI 10.5281/zenodo.4529862](https://doi.org/10.5281/zenodo.4529862)

Stephan Schiffels (ERC grantee, Archeogenetics): [DOI 10.5281/zenodo.4541284](https://doi.org/10.5281/zenodo.4541284)

Nicolas Schuck (ERC grantee, Neural and Computational Basis of Learning, Memory and Decision Making): [DOI 10.5281/zenodo.4534121](https://doi.org/10.5281/zenodo.4534121)

Toma Susi (ERC grantee, Physics): [DOI 10.5281/zenodo.4506520](https://doi.org/10.5281/zenodo.4506520)

Wolfgang Wagner (Head of the Research Group Microwave Remote Sensing): [DOI 10.5281/zenodo.4506586](https://doi.org/10.5281/zenodo.4506586)

Monika Wolkers (ERC grantee, Medical Biology): [DOI 10.5281/zenodo.4516272](https://doi.org/10.5281/zenodo.4516272)

Visions, needs and requirements for (future) research environments: An Exploration Series with Science Fiction Authors

- ✓ Report: <https://zenodo.org/record/4626957#.YFiGzq9KiUk>
- ✓ Key Takeaway Messages: <https://zenodo.org/record/4627019#.YFiPoq9KiUk>
- ✓ Interviews with Science Fiction authors:

Cory Doctorow (academic background: Computer Science): [DOI 10.5281/zenodo.4452335](https://doi.org/10.5281/zenodo.4452335)

Karl von Wendt (academic background: Economics): [DOI 10.5281/zenodo.4506912](https://doi.org/10.5281/zenodo.4506912)

Peter Watts (academic background: Biology): [DOI 10.5281/zenodo.4580897](https://doi.org/10.5281/zenodo.4580897)

Gwyneth Jones (academic background: History of ideas): [DOI 10.5281/zenodo.4673912](https://doi.org/10.5281/zenodo.4673912)

Adrian Tchaikovsky (academic background: Psychology, Zoology): [DOI 10.5281/zenodo.4730660](https://doi.org/10.5281/zenodo.4730660)

Cixin Liu (academic background: Computer Engineering): to be released in June

3 Challenges in Researcher Engagement

Saturation: Stakeholder Engagement started over a year ago. The EOSC had already been talked about for a relatively long time – which was also perceived as such, without any concrete, useful tools and services being available.

The Emperor's New Clothes: Thus, in spite of all effort invested, researchers still have no clear picture of what the EOSC should or will be or how it will transform their life into a better state. For example, the question about what the EOSC is, remains still a set of metaphors: it started out as an elephant being touched by three blind men in 2019, only to end up being a huge ship sailing on a sea of data in 2021, with *eduroam* and the ATM system serving every now and then as slightly more concrete but also limited metaphors.

Information overflow: A flood of reports, presentations, fancy names and acronyms as well as the fact that most information provided was often too abstract, opaque and scattered, was a major barrier to successful researcher engagement.

Not-my-business: Due to marketing campaigns promoting the EOSC, its (not yet existing) services and its benefits for researchers, researchers became sceptical. Additionally, hardly anything hints at concrete benefits for day-to-day research. At the same time, the actual goals and benefits of the EOSC initiative – the idea of consulting with actual stakeholders to collect input on what was (and is) needed and derive

recommendations from that⁶ – were lost. On the other hand, key concepts such as openness were misunderstood as being contradictory to R&D settings, specifically in industry contexts.

4 Lessons learned: What (Not) To Do

Researchers are saturated by mailing lists, presentations, and blogs, if they follow standard marketing and dissemination approaches. Strategies that are **highly unlikely to work** therefore include:

- ✓ **Sales-type marketing.** What does not yet exist cannot be sold easily to a critical audience!
- ✓ **Promises of a better world** without even knowing why or how the EOSC will make the world (of research) better (lack of concrete services for everyday research)!
- ✓ **Abstract concepts.** Researchers are asking for tangible information and concrete services that they will benefit from in terms of their day-to-day research. Answering questions exclusively with metaphors and associative terms is not helpful.
- ✓ **Showcase projects** that are little different from **“yet another project”**: Despite a number of early EOSC projects, little (visible) added value has remained because, for example, results were only produced for specific settings, thus being not much different to “normal” R&D projects in proceeding framework programmes.

Against this background, **unconventional approaches appear to be more successful**:

- ✓ **Interviews with top-level researchers** attracted more attention than marketing videos.
- ✓ **Interviews** with academics who are **prominent Science Fiction authors** attracted even more attention than interviews with top-level researchers.
- ✓ The genuine approach to **ask about what is needed and wanted** was very well received. It forces researchers to consider what they think that they will need, thus actually co-creating and shaping the EOSC.

5 Derived strategies for researcher engagement

Requirements: Researchers know what they need for their daily research work. In order to meet all challenges described in section 3 *Challenges in Researcher Engagement*, a **bottom up approach** that aims at directly involving researchers and research experts to collect immediate requirements on research environments has proven successful already in the **short-run**.

Creating a Wish list: Researchers find it hard to think about what they will likely need in the **mid-term future**. Thus, it is essential to intensify vision generation processes, creative brainstorming in order to imagine futures and to reveal the potential of such a major endeavour as represented by the EOSC. Such activities may well generate dynamics of their own, especially when they point in the right direction and offer tangible benefits and clear potential.

Visions: In the **long-run**, necessary strategies for successful researcher engagement include the establishment of researcher engagement as a continuous activity in the form of further discussion and

⁶ See https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/open-science/european-open-science-cloud-eosc_en

workshop series, the implementation of a **Vision Strategy Board** and impact assessment of already existing services, all of which also helps the EOSC to evolve.

Ambassadors' program: An ambassadors' program can form a crucial communication strategy that helps with **bridging communication gaps** such as mentioned in section 3 *Challenges in Researcher Engagement*. Ambassadors come from different disciplines and are able to address their communities. They are experts in their domains, trusted by their peers with an understanding of the EOSC goals and potential. However, ambassadors are not "the usual suspects" in terms of people who already represent such projects and initiatives.

Consider Change: Change is relevant with regard to various aspects. First, the needs of science, scientists, industry and society are evolving. Second, tools and services offered by RI's have impact on how research is performed and therefore do not only have the potential to change research, but society as a whole.

Take risk into account: Change also harbors a certain risk potential. In the context of RI evolutions, this concerns ethical, legal, technical and competitiveness risks. With respect to the transformative potential of the EOSC, risks relate to e.g. the breadth of research vs. cutting-edge research, regional vs. global, academia vs. industry, researchers vs. citizen science, or real-world data vs. privacy. An accompanying program monitoring and addressing these and other risks from a technology impact assessment perspective is recommended.

Globalization, Complexity and Interconnectedness: In an interconnected, changing world, research challenges are becoming increasingly complex, leading to a focus on **interdisciplinary research** and scientific cooperation in the face of increasing **competition for resources and dominance**. Additionally, **trust in science and research processes**, data provenance chains and (AI and other) tools deployed as essential components of gaining scientific insight are becoming more of an issue – all of which needs to be kept in mind when engaging researches and building future research environments.