

Deliverable report

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2	15.09.2016	Changes in the title, TOC formatting, reference to future plans regarding factsheets.	FCT



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1. EXECUTIVE SUMMARY

The first RICH Expert Seminar on “Challenges and Opportunities for Open Science in Europe” has been organized on April 20th, 2016 in Madrid. “Open Science” is one of the Pillars of Commissioner Moedas’s vision for Research in Europe. It envisages not only the now widespread “Open Access” policies for research publications, but also the open access to research data, software and any other research outputs. The Open Research Data Pilot, optional in H2020, but probably mandatory in the next Framework Programme, is a policy tool for the implementation of “Open Science”. Irrespective of policy tools, research outputs are dramatically increasing in number and volume, particularly with the ramping up of the European RIs activity and the emergence of “Big Data” in all fields of knowledge. This poses important challenges for the whole Research Infrastructure, and particularly for the e-Infrastructure, which needs to cater to the increased demand in data transmission, storage and computing. The European Commission has set up a High Level Expert Group (HLEB) on the European Open Science Cloud (EOSC), which is providing advice on the architecture of the e-Infrastructure that will serve these needs. Concomitantly, the H2020 topic INFRADEV-04-2016 will provide a pilot for the EOSC, which will start to test the solutions for the e-Infrastructure of the future ERA.

This Expert Seminar framed the “Open Science” paradigm in the context of the current and future European research needs, the challenges for its implementation and the tools being deployed currently. It focused on the RI needs and the implications for the RIs stakeholders community. The target group was the Research Infrastructures NCPs, which will act as multipliers within their own client base.

Objectives: To discuss the shift in the paradigm for access to research outputs in the ERA, in the context of the European Open Science Cloud, and the implications for European Research Infrastructures.

The Factsheet is available under the “RICH Publications”: <http://www.rich2020.eu/rich-publications>

at http://www.rich2020.eu/sites/all/themes/rich/files/RICH_OpenScience_Factsheet.pdf

And under the highlights section in the homepage: <http://www.rich2020.eu>





2. CONTENT SECTION

The agenda of the seminar has been built around the needs of the NCPs and 3 major experts have been invited to provide presentations on the relevant items:

Research in 2030 – What will Open Science look like?

Thomas Cruzier (KTH, SE and connectedresearchers.com)

Opening up the Research Community to the Open Science paradigm

Reme Melero (CSIC Valencia, ES and FOSTER)

The European Open Science Cloud for Research

Rachel Bruce (Jisc, UK and HLEG on EOSC)

The presentations have been made available to the participants.

Furthermore the Spanish NCPs have also been invited to attend the workshop in order to maximize the benefit. In total 40 participants attended the event.

The main outcomes, to be used for the publishable fact-sheet are the following:

What is it?

Open Science is one of the pillars of the European Commission's vision of "Open Science, Open Innovation, Open to the World". This is a vision of a fundamentally new organization of the research process, in which publications, research data, software and code are freely available to the whole research community and beyond. Likewise, the research-performing entities are to be expanded into the whole society, as are research funding and reviewing, making the whole process, upstream and downstream of scientific creation open to the whole society.

How

The Open Science paradigm requires a substantial effort in the development and integration of e-Infrastructure. This encompasses the individual activities of network connectivity, data storage, cloud computing and High Performance Computing (HPC). Europe has all these e-Infrastructures in place and their continued seamless integration is one of the pillars of the European Open Science Cloud (EOSC)





Sticks

From 2017, Open Data will be the default in Horizon 2020, and Data Management Plans will be required on all new projects. At the national level, Research Councils are working on their own Open Science Frameworks and on their integration with the EU policy. In the future, the EOSC is expected to grow and merge into a Global Open Science Cloud. The connecting e-Infrastructure is being laid down; coordinated rules and regulations will make it a reality.

Carrots

The shift from the traditional Research into the new Open Science paradigm will require support and incentives. The European Commission has set up a High Level Expert Group for the EOSC, and is funding the implementation of a large-scale pilot and services for the EOSC. The FP7-funded FOSTER project (<https://www.fosteropenscience.eu/>) is disseminating Open Science throughout the research community, and together with EUDAT (<https://www.eudat.eu/>) is conducting webinars on Data Management Plans. A plethora of bottom-up initiatives and new tools are helping the day-to-day Open Science concept to kick in and bringing the pieces of the EOSC together. Updates on tools and gadgets available at <http://connectedresearchers.com/>

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OPEN SCIENCE



What is it?

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How?

The Open Science paradigm requires a substantial effort in the **development and integration of e-Infrastructure**. This encompasses the individual activities of **network connectivity, data storage, cloud computing and High Performance Computing (HPC)**. Europe has all these e-Infrastructures in place and their continued **seamless integration** is one of the pillars of the **European Open Science Cloud (EOSC)**

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This document has been produced by RICH, the network of Research Infrastructures NCPs. Find out more at: <http://www.rich2020.eu/>



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3. CONCLUSIONS AND FUTURE PLANS

Following the successful organization of the first expert seminar, a second one will be organized in Paris on November 30th 2016, the topic to be addressed being the new ESFRI roadmap. A second Factsheet (on ESFRI) will be produced as the outcome of that seminar. The third and fourth factsheets are expected to be produced in 2017 and 2018, as a result of the third and fourth expert seminars, the topics and dates of which will be determined in due time, in close interaction between the NCPs in the project and the extended network.

