

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/>

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

