

Catalyzing the Open Science Transformation by an Institutional Strategy

We understand the digital transformation of science as a socio-technical process in which digital tools and infrastructure go hand in hand with a (social) opening of essential phases of publicly funded research and teaching, taking into account subject-specific cultures. One can mandate this process from the top down, but in our experience a bottom up approach by researchers for researchers with the support of central facilities on the campus such as computing centre and library is more promising for the practice of an open scientific culture.

In our opinion, the home institutions of the researchers have to play an important role in this transformative process.

Policies on Open Access, on the management of research data and an Open Science Manifesto also provide the institutional framework at our institution.

But this transformation process has only gained momentum with the establishment of an Open Access Task Force, now renamed into the Open Science Task Force, which brings together active members of various faculties and university institutions for almost ten years. This think tank meets regularly every two weeks and develops new ideas to support Open Science transformation up to its implementation in research projects.

This group is an important driving force for the entire university which has to provide an infrastructure of services and tools for data publishing integrated seamlessly in the research process, efficient support to minimize the additional workload for researchers, policy and communication to raise awareness, and incentives to motivate data publishing.

Since then, our university has consistently expanded its activities to include Open Science. Services for researchers include an institutional repository for publishing data, a GitLab installation that can perform automated data quality checks, and virtual research environments designed specifically for research projects. Particular attention was paid to integrating data management and open science into student education. A full-semester seminar has been offered for seven consecutive years and is included as an elective module in several degree programs. This is complemented by sharing of successful solutions with other universities and the adoption of promising approaches by others. We plan to present our overall approach to Open Science and the solutions developed so far, all of which are ready for reuse.