

## LIBER Statement on Enabling Open Science

LIBER, the Association of European Research Libraries, has a mission to provide an information infrastructure to enable the research outputs of LIBER institutions to be world class.

**LIBER welcomes** the European Commission's consultation on Science 2.0. as a first step towards strengthening the global competitiveness of European research by gaining insight into the perceived opportunities and challenges presented by the 'opening up of the research process'.

We believe that the move towards openness will lead to increased transparency, better quality research, a higher level of citizen engagement, and will accelerate the pace of scientific discovery through the facilitation of data-driven innovation.

**LIBER also recognises** that the impact of openness is not limited to research as, if supported by the appropriate policies, it can benefit European competitiveness overall by enabling knowledge transfer and faster access to, and exploitation of, research results and data for businesses.

**LIBER fully supports** policies and actions at the European level that enable Open Science across every discipline. It is evident that openness is at the heart of the transformation of science and research being explored through this consultation, and that its pursuit in terms of scholarly practice and output is key to increasing European competitiveness.

**LIBER urges** the European Commission to take action to support the following enablers for Open Science:

#### Policy and Leadership:

The development and coordination of policies and roadmaps for open access to publications and research data by funders and at institutional and national level is the first step in enabling Open Science. If funders mandate open access to publications, research data and tools, as well as the use of interoperable licences with clear reuse statements, such as CC-BY and CC0, this would increase the efficiency and practice of data-intensive science. Funding programmes such as H2020 are hugely important to help accelerated the development of Open Science. Mechanisms for the recognition of excellence in Open Science, e.g. via inclusion in ranking systems, would incentivise institutions to implement such roadmaps.

# Advocacy and recognition:

Advocacy for Open Science, and associated societal and economic benefits, can act as an enabler as it will engender buy-in from policy makers and from researchers themselves. Identification of the drivers and barriers at disciplinary level to a culture of openness and the addressing of these barriers will also support the cultural shift necessary to embed Open Science. We believe that libraries are uniquely placed to advocate for Open Science policy and practice at institutional level and beyond, and to increase the visibility of Open Science outputs. They have also been at the vanguard of citizen science engagement e.g. via crowdsourcing of content and metadata. It is

important that awareness-raising mechanisms are developed which are targeted at policy makers, citizens, disciplinary communities, researchers at every career level, and at institutions. Open Science initiatives and outputs should be widely promoted and incentivised. Promotion of the benefits of Open Science should take place in parallel with the development of tools and services, and incentives and recognition mechanisms, that support excellence in Open Science. Emphasis should be shifted towards incentivising quality research outputs rather than metrics such as Impact Factors.

### Legal:

Open Science does not recognise borders. It is founded on the principles of collaboration and universal access, and yet the lack of harmonisation of copyright law across Europe and globally is hampering access and collaboration. An issue which has been on the agenda of the European Commission for some time now is that the European copyright regime is not fit for the digital age. For example the US, which has a more favourable copyright regime for researchers, has produced over half of the text and data mining-related publications and patents globally. It is estimated that reforms to the European copyright system that would enable TDM could result in a 2% increase in the real value of research output produced by the EU research budget, adding €5.3 billion to total €272.2 billion¹. Copyright reform must be an immediate priority in order to address this gap in competitiveness.

### Open infrastructure:

Open collaborative and interoperable infrastructure for access to, exploitation, reuse, and the preservation of research outputs is a key enabler of Open Science. It empowers researchers, and citizens, with the ability to make their outputs available, to increase the visibility of and recognition for their research, to collaborate, and to innovate. It is essential, therefore, that such infrastructure continues to be built, that stakeholders can have trust in this infrastructure and that sustainable support for open pan-European initiatives (e.g. OpenAire & EUDAT) and national infrastructure (e.g. ATT in Finland) is provided. Institutional, national and international infrastructures should be supported to develop and adopt global standards for interoperability. International standards organisations should also be encouraged to engage with the Open Science community to develop interoperable standards for Open Science.

## Roles, responsibilities and skills:

The move towards Open Science is signified by a changing stakeholder ecosystem in which new roles are emerging, such as that of the data steward, and new responsibilities are being defined. Roles and responsibilities in this new paradigm need to be clearly delineated, in particular for successful data management and open data. leadership and senior management, support services such as IT and library services, AND, of course, the researcher, are stakeholders in the open research data environment and all play a role in ensuring that open data is integrated into the way research is carried out in the future. Pilots that involve collaboration across stakeholders to explore new process, solutions and innovations are also necessary. Support for the development of new skills and curricula, as well as investment in the development of support services to help researchers fulfil their responsibilities, are absolutely crucial in enabling Open Science.

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<sup>&</sup>lt;sup>1</sup> http://ec.europa.eu/research/innovation-union/pdf/TDM-report from the expert group-042014.pdf