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## EIFL Input to UNESCO Consultation on Open Science

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Iryna Kuchma, EIFL Open Access Programme Manager, [iryna.kuchma@eifl.net](mailto:iryna.kuchma@eifl.net)

[EIFL](#) (Electronic Information for Libraries) works with libraries in Africa, Asia and Europe to enable access to knowledge for education, learning, research and sustainable community development. Our vision is a world in which all people have the knowledge they need to achieve their full potential.

EIFL welcomes the UNESCO Global Consultation on Open Science and is grateful for the opportunity to provide our input. We agree that a global consensus on Open Science is needed that ensures equitable and inclusive Open Science. Please see our suggestions below on the shared values and principles for Open Science, and recommendations for concrete measures on Open Access and Open Data.

### Shared values:

- Open, transparent and equitable access.
- Openness, public and free availability and reusability of research outputs and processes by other researchers, businesses, and the general public to strengthen societal knowledge base, innovation and impact of research throughout society.
- Research-enabled teaching and learning, citizen science, open innovation, and greater transparency, accountability, research integrity and public trust in research.
- Social justice through a culture of open sharing, mentorship and skills development.

### Open Science principles

- All researchers have an equal opportunity to publish their research in open access, regardless of field of research, funding basis, or career stage.
- Research incentives and structures support the open science work and equality of researchers.
- The assessment of researchers and research takes into account new and changing forms of publishing reflecting open science.
- There are no contradictory requirements between career rewards and open science.

### Strategic goals and objectives for Open Science policies

- Responsible openness is part of daily research practices and the entire research process.

- Research organizations have the evaluation practices, incentives and services needed to support open science and research.
- All new research publications are immediately openly available, preferably under the Creative Commons Attribution licence, CC BY, or another appropriate Creative Commons licence via open access repositories.
- The research community creates a jointly funded publishing model that enables open access journal and book publishing.
- Transparent and fair Article Processing Charges (APCs) for genuine added value to fully open access publications.
- Authors/institutions retain copyright of their publications.
- The total cost of scholarly publication channels and individual publications is transparent and publicly available.
- Research data and methods are as open as possible and as closed as necessary.
- The management of research data and software aspires to FAIR (Findable, Accessible, Interoperable, Reusable) principles.
- Research methods and materials, including research data and software, are recognized as independent research outputs.
- Creation, use and collaborative development of open educational resources and other open educational practices are part of daily practices in higher education and enable lifelong learning.

### **Required actions**

- Require depositing of the final quality-assured version of the researcher's article/conference proceedings in a digital repository, potentially immediately upon publication without any embargo period, as a swift and cost-effective method for disseminating quality assured research results.
- Scholarly publishers should ensure that researchers have the right to make the final quality-assured version of their scientific articles available in a digital repository at the time of publishing.
- Ensure transparent and fair APCs, and APCs should not be a barrier for researchers from the Global South or small institutions to publish their articles.
- The scientific community must regain control of the publishing process and ensure diversity in scholarly communications, and strong community-governed infrastructures.
- Support collaborative non-APC publishing models.
- Promote synergies and have a coordinated approach among national infrastructures as well as with regional and global initiatives.
- Ensure the quality, interoperability and reliability of infrastructures, including through the use of internationally recognized certification mechanisms, specifications, and standards and through utilizing open source systems and software whenever possible, complying with the rules of inclusiveness, transparency, good governance and non-profitability.
- Encourage open peer review.
- Require data availability statements from journals.
- Ensure that universities and research organizations have the evaluation practices, incentives and services needed to support open science and research, e.g. the

academic career system supports and rewards researchers who participate in a culture of sharing the results of their research.

- Include open science and associated skills attainment in research reporting and evaluation at the institutional and national levels.
- Prioritize quality over quantity when evaluating research.
- Incorporate indicators and measures for data sharing into institutional and national assessment and individual researcher evaluation processes, researcher recruitment, advancement and grant applications review.
- Funders and institutions adopt open responsible research metrics, along with ways of rewarding the full diversity of outputs and of recording the broader social impact of research.
- Encourage the use of open citations (Initiative for Open Citations – I4OC) instead of citations from proprietary systems.
- Support citizen science.
- Follow “as open as possible, as closed as necessary” FAIR research data management approach.
- Require researchers to deposit research data in trusted repositories and/or data centers with the highest standards for preservation, curation, deposit and reuse, at the latest at the same time as the publication they underpin.
- Require machine-readable DMPs as a standard practice from the earliest stage in the research process.
- Repositories should include metadata of deposited publications and data under a Creative Commons Public Domain Dedication ([CC 0 1.0](#)) or equivalent, in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: publication: author(s), title, date of publication, publication venue; programme/action/grant number; licensing terms; persistent identifiers for the publication (e.g. DOI or Handle), the author(s) (e.g. ORCID, ResearcherID), and, if possible, for the institution(s) (e.g. ROR); where applicable, persistent identifiers for any research output or any other tools and instruments needed to validate the conclusions of the publication.
- Monitor and report the costs of scholarly communication activities, research data management and open science (institutionally, nationally, etc.).
- Enhance open science skills: Those involved in each stage of the research process should have the capacity and skills necessary to publish in open access, enable FAIR data, and practice open science.
- Develop standardized open science skills-set, provide accredited programmes for open science training for researchers at all career levels, including among research students and supervisors.

(Inspired by the [National Open Access Policy of Ethiopia for Higher Education](#), [Declaration for OS and Research](#), Finland, [Open Access to scholarly publications – National policy and executive plan by the research community in Finland for 2020–2025](#), [National plan for Open Science](#), France, Ireland's [National Framework on the Transition to an Open Research Environment](#) and [Fostering Bibliodiversity in Scholarly Communications: A Call for Action](#))