

# RESEARCH AND INNOVATION DAY IN UKRAINE



## A GLOBAL VISION FOR OPEN SCIENCE

EIFL's contribution to implementing the UNESCO  
Recommendation on Open Science

“Through its expertise, networks and long-standing experience in promoting access to knowledge, EIFL has been an instrumental partner in developing the UNESCO Recommendation on Open Science and is at the core of the global efforts focusing on its implementation.”

– ANA PERŠIĆ, SCIENCE, TECHNOLOGY AND INNOVATION POLICY, NATURAL SCIENCES SECTOR, UNESCO

The UNESCO Recommendation on Open Science - the first-ever international standard for open science - was formally adopted by UNESCO's 193 Member States on 23 November 2021.

EIFL participated in the development of the Recommendation through the UNESCO Global Open Science Partnership, which brought together open science stakeholders from across the world in an inclusive consultative process. Iryna Kuchma, EIFL Open Access Programme Manager, was one of 30 international experts appointed by UNESCO's Director-General to serve on the Advisory Committee that advised the global partnership and prepared a draft recommendation.

The Recommendation provides an international framework for open science policy and practice that recognizes regional and disciplinary differences, and takes into account academic freedom, gender-transformative approaches and the specific challenges faced in different countries.

It provides the first internationally agreed definition of open science, as an inclusive construct that combines various movements and practices, aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community (for example, indigenous knowledge-holders). A key aim of the Recommendation is to bridge the science, technology and innovation gaps between and within countries.

To realize its objectives, and to guide implementation, the Recommendation

proposes seven areas of action. As a member of the UNESCO Global Open Science Partnership, EIFL is committed to implementing the Recommendation, working with library consortia and other institutions in our partner countries.

In 2022, our work centred on three areas of action. Here we share some highlights of our contribution in 2022.

#### **ACTION: DEVELOPING AN ENABLING POLICY ENVIRONMENT FOR OPEN SCIENCE**

Open science policies are essential to foster a culture of open science nationally and within public and private institutions, and the Recommendation has sparked the revision of existing policies as well as the formulation of new ones.

In 2022, EIFL's contribution to national and institutional open science policy development processes bore fruit in several of our partner countries.

At the national level, our work has contributed to the adoption of a National Open Science Action Plan in Ukraine; completion of draft national science roadmaps in three countries (Armenia, Botswana and Moldova) and a draft policy for the Ethiopian Ministry of Agriculture.

In Ukraine, EIFL's Iryna Kuchma served on the National Open Science Working Group at the Ministry of Education and Science that developed the National Open Science Action Plan. Late in 2022, the Government of Ukraine approved the National Open Science Action Plan, and mandated all Ministries to ensure that it is implemented.

The Action Plan stipulates integration of open

science into all national science, research, education, technology and innovation policies, strategies and action plans, by 2025, and provides guidance to achieve this. The Action Plan encourages Ukrainian open access journals to register with the Directory of Open Access Journals (DOAJ), and allocates Government funding for a national research repository to be integrated with institutional repositories. Reforming research assessment and open science training are among the priorities for 2023.

In Botswana, EIFL's partner, the Botswana Libraries Consortium (BLC), played a central role in coordinating the drafting of a national open science policy. The chair of the BLC, and EIFL Country Coordinator, Naniki Mphakwane, is the Secretary of the Botswana Open Science Policy Working Group.

Developing the policy was a huge task, says Naniki.

“Most of Botswana's universities and research institutions, and government ministries, civil society and the private sector were represented on the Working Group. The task came towards the end of the year and we worked tirelessly to ensure that there would be a draft ready before the recess in December 2022. We succeeded, and the draft policy is ready for the Ministry of Communications, Knowledge, Science and Technology, which is leading the due process for consultations and adoption.”

If the process runs smoothly, Parliament will approve the policy in June 2023.

“It will be exciting to have an enabling policy that will be a driver of change. The policy promotes innovative processes for open science, by providing incentives - for example, rewards

for researchers who innovate, and support for scholars undertaking research using open science practices. We have proposed a budget for the implementation of the policy, including for actions like establishing infrastructure and capacity building of librarians and students.

“EIFL played a big role in the development of the draft policy through Iryna who constantly provided expertise and experience,” says Naniki.

In 2022 EIFL also contributed to the adoption of open science policies by seven institutions, in Armenia, Democratic Republic of Congo (DRC), Côte d'Ivoire, Kenya and Uganda. One institution in Moldova updated its existing open access policy to include open science, and eight institutions, in Armenia, Botswana, Ghana, Kenya, Kyrgyzstan and Lesotho, have drafted policies in 2022 that are now being discussed by university managements.

#### **ACTION: INVESTING IN OPEN SCIENCE INFRASTRUCTURES AND SERVICES**

In 2021 / 22 EIFL provided small grants to support projects to establish and improve open science infrastructures for sharing of research. The grants supported development of open journals publishing platforms and institutional repositories in eight partner countries: Armenia, DRC, Ethiopia, Georgia, Ghana, Kenya, Lesotho and Uganda.

The results have been far-reaching: 20 institutions in Georgia, 18 in Ghana, 17 in Kenya and 10 in Ethiopia - a total of 65 institutions - have launched national and institutional open access journal publishing platforms. Eight institutions - one in the DRC and seven in Ghana - have established open repositories. In addition, the funded projects

contributed to improved quality of services of almost 100 institutional open access journals and repositories.

All the projects had awareness-raising and capacity building components, with workshops and training that reached hundreds of people - institutional leadership and management, faculty and researchers, journal editorial staff and authors, librarians and IT teams. As a result, there is now greater buy-in for open science at leadership level, and the question of policies to govern and guide use of open science infrastructures is firmly on the agenda.

As a further contribution, we organized seven weekly webinars for African open access journal editors and publishers, with partners (ASSAf - Academy of Science South Africa; AJOL - African Journals Online; DOAJ; LIBSENSE and the University of Cape Town), and coordinated the writing of DSpace 7 user documentation for repository managers and administrators.

### SOME EXAMPLES

In Ghana our partner, CARLIGH (the Consortium of Academic and Research Libraries in Ghana) has member institutions spread across the country. CARLIGH deployed technical teams to visit selected institutions to support installation of new repositories, to improve existing ones and to train library staff to populate repositories with research output. As a result, 16 institutions now have functioning OA repositories and are sharing their research.

CARLIGH also organized three regional open access journal management, editorial and technical workshops, reaching 240 journal managers and editors, authors, librarians and IT staff from 19 institutions. The project built capacity to install and manage Open Journal Systems (OJS) publishing platforms at 18 institutions. Most of the institutions have taken steps to install OJS and have begun publishing and hosting institutional journals.

“There is now greater enthusiasm for open science. Faculty and students are keen to deposit their articles and data in the new institutional repositories. And we have stronger

backing from university managements because they are more aware about how showcasing your research affects university rankings,” says Richard Bruce Lamptey, Librarian at the College of Science Library at Kwame Nkrumah University of Science and Technology (KNUST), and EIFL Country Coordinator in Ghana.

The CARLIGH technical teams are available to provide ongoing technical support to member institutions that have established new open science infrastructures.

In Kenya, our national partner, the Kenya Libraries and Information Services Consortium (KLISC), worked with member institutions that wanted to publish their print journals in open access online. KLISC set up OJS publishing platforms, and built editorial and technical capacity at 17 institutions in five regions of Kenya. Work has now begun on moving back issues of journals online and publishing current issues using OJS.

In Armenia we supported the National Library of Armenia (NLA) to create a new open access repository using the most up-to-date open repositories software, DSpace 7. The new repository is central to Armenia’s growing national open science infrastructure. By the end of 2022, NLA staff had moved 825 theses and dissertations to the new repository, and will continue with this work in 2023.

### ACTION: INVESTING IN HUMAN RESOURCES, TRAINING, EDUCATION, DIGITAL LITERACY AND CAPACITY BUILDING FOR OPEN SCIENCE

EIFL is involved in several open science capacity building initiatives.

As chair of the OpenAIRE Training and Support Standing Committee, Iryna Kuchma contributed to building the OpenAIRE training platform for open science and co-designed open science support materials for Horizon Europe, the European Union’s key funding programme for research and innovation. Iryna also co-hosted two open science train-the-trainer bootcamps for 76 trainers.

EIFL is one of 11 partners taking part in the OPTIMA project, funded by the European education and training programme, Erasmus+. The OPTIMA project promotes openness and transparency in research in Ukraine by fostering open science practices and open peer review among early career researchers. The project has developed 15 open science courses in Ukrainian for Master’s and PhD students, and these have received accreditation in four project partner universities.

With support from EIFL, the American University of Central Asia (AUCA) in Kyrgyzstan organized and hosted open access training for university librarians and research offices from all regions of Kyrgyzstan. AUCA has also developed and shared a handbook on open access in Kyrgyz and Russian.

EIFL is contributing to the UNESCO Open Science Toolkit, with factsheets, guides and checklists to support implementation of the Recommendation.

We collaborated with the LIBSENSE community in developing the Checklist for universities on implementing the UNESCO Recommendation on Open Science.

We teamed up with OASPA (the Open Access Scholarly Publishing Association) to develop the Checklist for open access publishers on implementing the UNESCO Recommendation on Open Science. :

“We’re grateful to UNESCO for hosting the guidelines and also to EIFL’s Iryna Kuchma for working with OASPA on these and making the Checklist for open access publishers a really valuable and globally relevant resource,” said Claire Redhead, Executive Director of OASPA.

The UNESCO Recommendation on Open Science is just one year old. As it goes into its second year we will continue to work with our partners to advance a global vision of open science.

## The UNESCO Recommendation on Open Science - EIFL’s contribution in 2022



### OPEN SCIENCE POLICIES

- 6 - countries adopted national policies
- 4 - countries drafted national policies
- 8 - institutions adopted policies
- 8 - institutions drafted policies



### OPEN SCIENCE INFRASTRUCTURES

- 100+ - new journals published in open access
- 65 - institutions launched open access journal publishing platforms
- 8 - institutions launched new open access repositories
- 98+ - open access journals and repositories services improved



### CAPACITY BUILDING FOR OPEN SCIENCE

- 3,500+ - people trained
- 146 - open science trainers trained

*Thank you to the Open Society Foundations for supporting the EIFL Open Access Programme.*

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