

# Open Science Community and Capacity Building

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## Open Science



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<https://en.unesco.org/science-sustainable-future/open-science/recommendation>

### UNESCO Recommendation on Open Science

At the [40th session of UNESCO's General Conference](#), 193 Members States tasked the Organization with the development of an international standard-setting instrument on Open Science in the form of a UNESCO Recommendation on Open Science to be adopted by Member States in 2021.

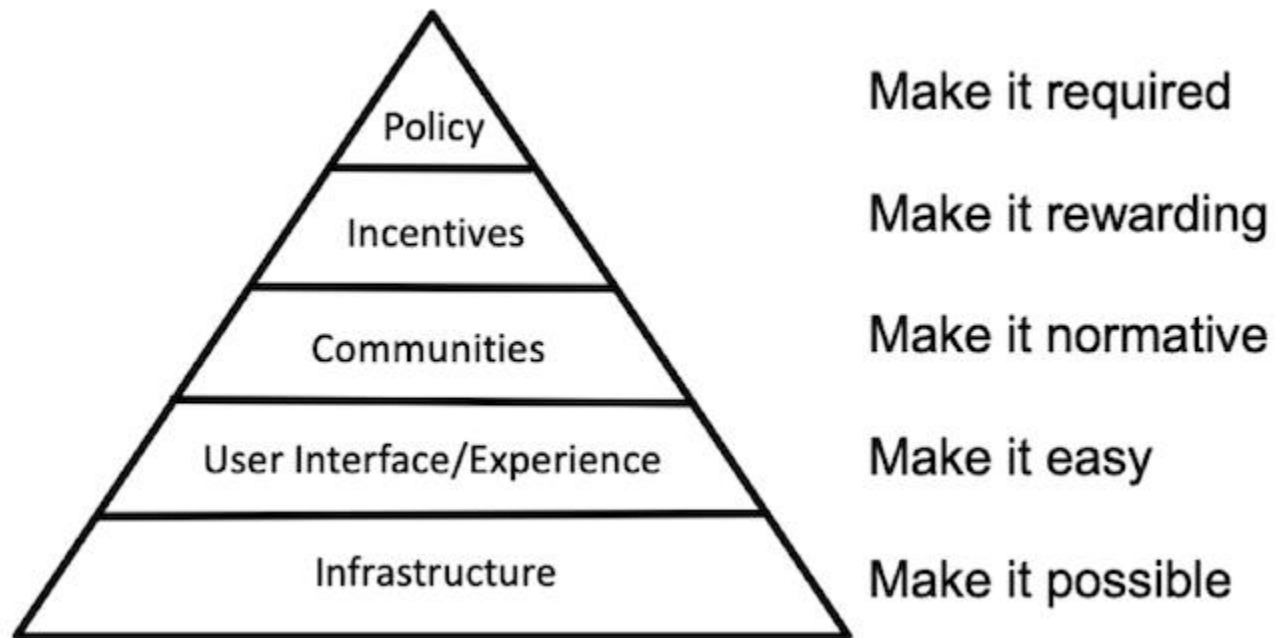
The Recommendation is expected to define shared values and principles for Open Science, and identify concrete measures on Open Access and Open Data, with proposals to bring citizens closer to science and commitments to facilitate the production and dissemination of scientific knowledge around the world. The Recommendation will be developed through a regionally balanced, multistakeholder, inclusive and transparent consultation process.

- [Home](#)
- [UNESCO Recommendation on Open Science](#)
- [Multistakeholder Consultations on Open Science](#)
- [Open Science Advisory Committee](#)

# Areas for Actions

1. **Promoting a common understanding of open science, associated benefits and challenges, as well as diverse paths to open science**
2. **Developing an enabling policy environment for open science**
3. Investing in open science infrastructures and services
4. **Investing in human resources, training, education, digital literacy and capacity building for open science**
5. **Fostering a culture of open science and aligning incentives for open science**
6. **Promoting innovative approaches for open science at different stages of the scientific process**
7. Promoting international and multi-stakeholder cooperation in the context of open science and with a view to reducing digital, technological and knowledge gaps





*The pyramid of culture change. Image by Brian Nosek (licensed under [CC BY-ND 4.0](https://creativecommons.org/licenses/by-nd/4.0/)), reproduced from the blog post [Strategy for Culture Change](http://www.startyourosc.com) <http://www.startyourosc.com>*



nationaal  
programma  
**open  
science**

[National Programme Open Science](#)

[What is Open Science?](#)

[Documentation](#)

[Speakers](#)

# Open Science Communities

Open Science Communities are local communities comprising members of various scientific disciplines and career stages, who want to learn more about Open Science. The local OSC is the place where newcomers to Open Science can learn from their colleagues. Below you can find the list of Dutch OSCs.

OSCs organize activities, such as workshops and symposia. Next to being learning communities on all aspects of Open Science, they also provide input on policy, infrastructure and services. The first OSC started in 2018 in Utrecht. In 2021 there is an active OSC at almost all Dutch universities. Their example is also followed abroad.





# Open Science Community Starter Kit

Set up and foster a local Open Science Community

➔ Get Started



<http://www.startyourosc.com>

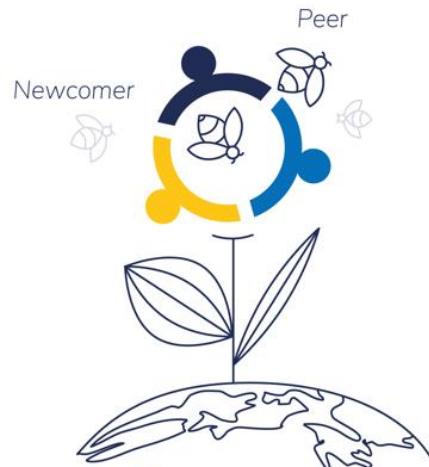
## THE FOUR STAGES OF DEVELOPING AN OPEN SCIENCE COMMUNITY



01

### PREPARE & LAUNCH

- Find founding members
- Connect with us!
- Be visible
- Attract initial members
- Connect to other initiatives
- Launch!



02

### GROW & INSPIRE

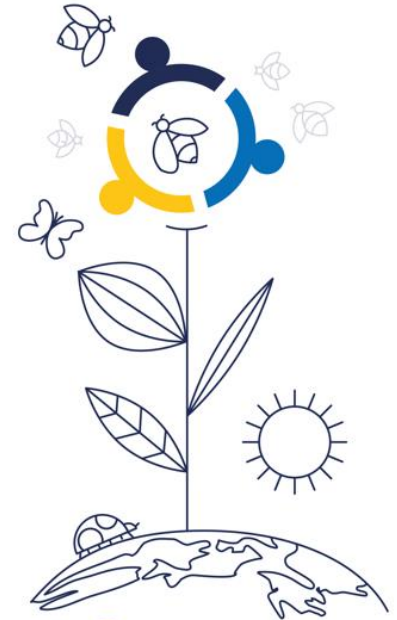
- Attract members
- Inspire Open Science practices



03

### FOSTER AND MAINTAIN

- Foster diversity and inclusivity
- Interact with institutional stakeholders
- Interact with society



04

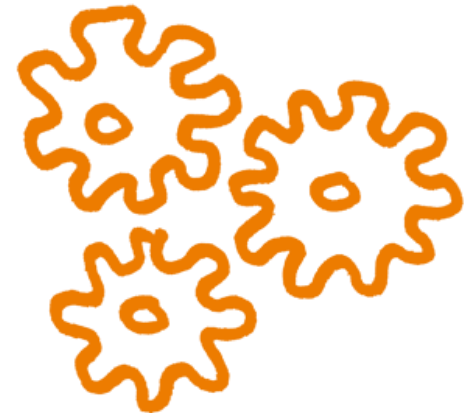
### DREAM & SCHEME

- The future is open!

<http://www.startyouosc.com>

# Investing in human resources, training, education, digital literacy and capacity building for open science

Providing **systematic and continuous capacity building on open science concepts and practices**, including broad comprehension of the open science guiding principles and core values as well as technical skills and capacities in digital literacy, digital collaboration practices, data science and stewardship, curation, long-term preservation and archiving, information and data literacy, web safety, content ownership and sharing, as well as software engineering and computer science





## **Investing in human resources, training, education, digital literacy and capacity building for open science (2)**

**Agreeing on a framework of open science competencies aligned with specific disciplines for researchers at different career stages, as well as for actors active in the private and public sectors or in civil society, who need specific competences to include the use of open science products in their professional careers; and developing recognized skills and training programmes in support of the attainment of these competencies. A core set of data science and data stewardship skills, skills related to intellectual property law, as well as skills needed to ensure open access and engagement with society, as appropriate, should be regarded as part of the foundational expertise of all researchers and incorporated into higher education research skills curricula.**



# Support research, teaching and learning

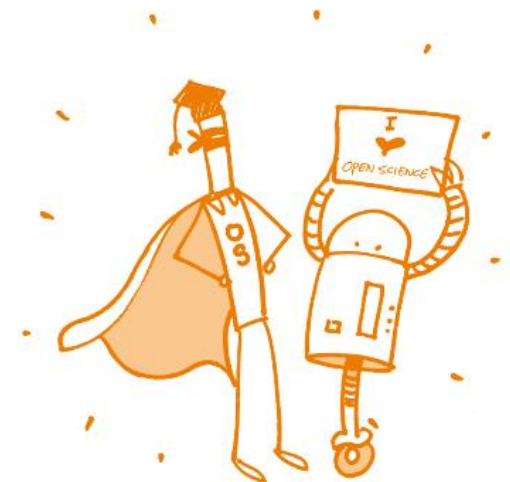
Enhance open science and open research skills

Support [EIFL partner countries](#)

launching/implementing open science training

Advocate for research incentives and structures that support and promote the acquisition of open science and open research skills

([EIFL's Strategic Plan 2021 – 2023](#))





## EIFL DIGITAL RESEARCH LITERACY TRAINING PROGRAMME FOR LIBRARIANS (UPDATED)

Training programme outline to enable university and research libraries to help researchers and students produce quality research

<https://eifl.net/resources/eifl-digital-research-literacy-training-programme-librarians-updated>

Home > Resources > EIFL Digital Research Literacy Training Programme for Librarians (Updated)

### ABOUT THE RESOURCE

TYPE:	GUIDE, CURRICULUM
AUTHOR:	EIFL
DATE:	AUGUST 2021
LICENCE:	<a href="#">CREATIVE COMMONS ATTRIBUTION 4.0 INTERNATIONAL (CC BY 4.0)</a>
DOCUMENT LANGUAGE:	ENGLISH

DOWNLOAD

This is an updated version of the EIFL Digital Research Literacy Training Programme Outline for Librarians, first published in November 2020. We have added new resources to the training programme outline, including recordings and slides from a series of webinars (2021) that provided practical advice, ideas and tips for librarians who conduct digital research literacy training for students and researchers.

Digital research literacy comprises the skills, knowledge and understanding required to produce quality research outputs in a digital environment. Libraries offer a variety of training programmes for faculty and students; however, an EIFL survey conducted in 2018 across 36 EIFL partner countries found that the only two topics well familiar to librarians were 'Research process' and 'Writing articles and reusing content'. All other digital research literacy topics remained largely undiscovered.

To enable university and research libraries to help researchers and students produce quality research outputs, EIFL compiled this digital research literacy training programme outline. The training outline is organized according to the research cycle: Discover, Manage Research Data, Publish, Disseminate and Increase Visibility, and Measure Impact. Each section gives an overview of the topic, what the trainer should cover, and what

the learner should gain by the end of the training. Each topic includes 'Resources for facilitators and learners', with useful material that trainers and learners can use to improve their own knowledge or use in their own training.

# Key recommendations for practical implementation of Open Science - Training

Develop skills development programmes: consider the hybrid roles of data-related and research-related librarian roles

Design Training programmes for researchers or revise graduate curriculum to train students on open science practices

Train researchers to default to open science and that participant privacy and intellectual property are not opposing to open science practices

(From CUUL (Consortium of Uganda University Libraries) Open Science Symposium in Uganda)

# Competence Centres

- **Support for and training** in applying open science practices is necessary to ensure that conditions are optimised.
- This includes clear information and budget for infrastructure and technical support and training.
- For Early Career Researchers, this training may be an integral part of courses offered by graduate schools and in research masters.
- It is important to involve researchers already applying open science practices in the training.
- These activities may be hosted in competence training centres with specific training programmes.

# Ethiopia – Open Access Publishing and Research Data Management Training

The Consortium of Ethiopian Academic and Research Libraries (CEARL) and Addis Ababa University (AAU) developed three training modules: Open Access publication, Research Data Management (RDM), and RDM for librarians and research managers; and hosted 16 training sessions for almost 600 early career researchers and PhD students and over 100 librarians in AAU, Arba Minch University and Debre Birhan University in June-July 2021



Debre Berhan University training on July 16-17, 2021



ALT



Addis Ababa University, College of Agriculture and Veterinary Medicine, Bishoftu training on July 28, 2021

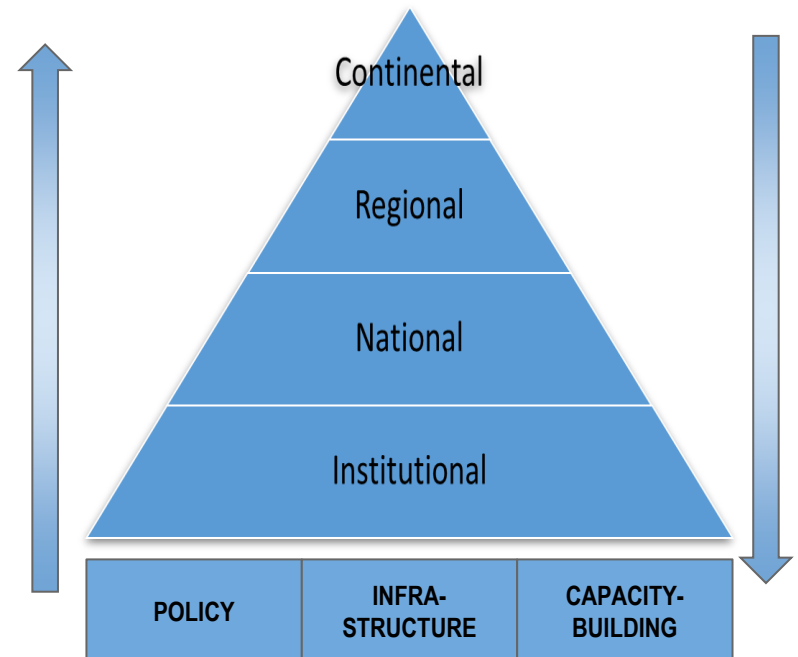
# LIBSENSE Strategy

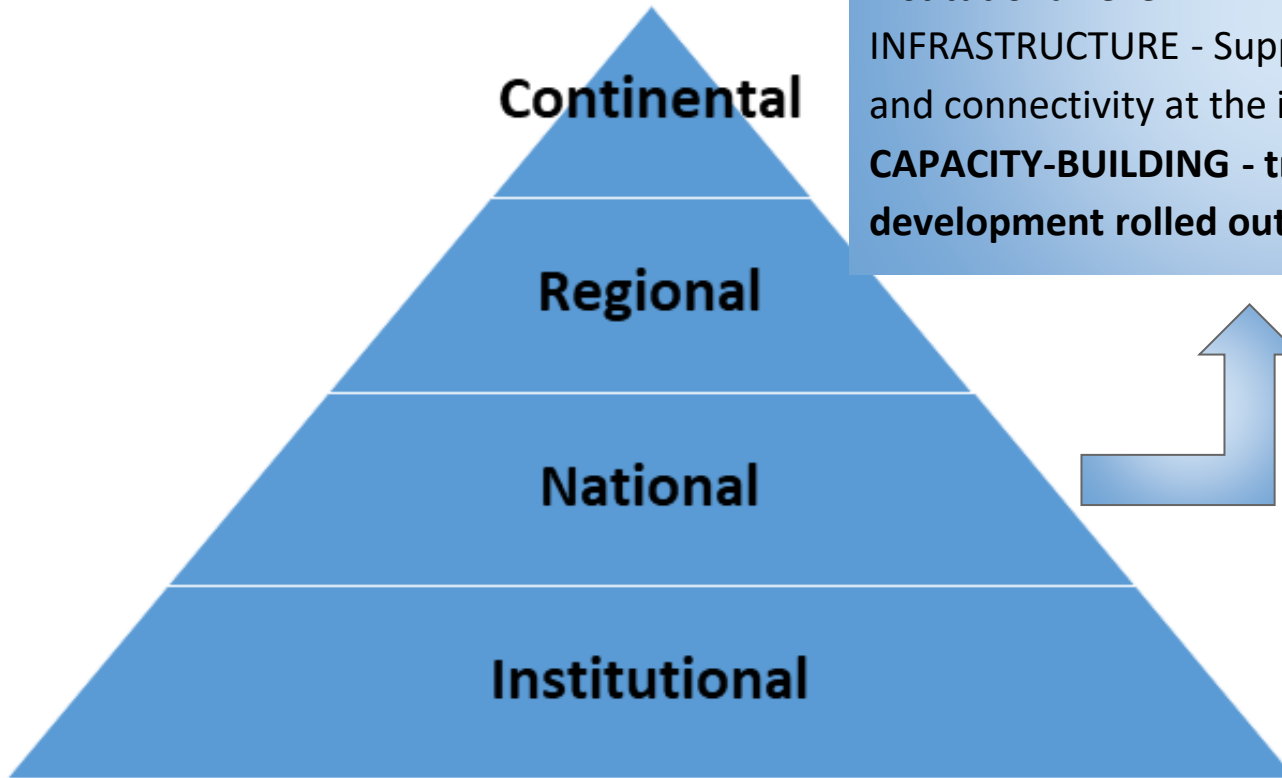
## Overall Strategy:

- Building communities of practice
- Strengthening local and national services
- Bottom-up, distributed, heterogeneous
- Inclusive -
  - 3 Working languages, Arabic, English and French
  - Indigenous and traditional knowledge

## Three Pillars:

- **Policy:** open science policies, governance and leadership
- **Infrastructure:** open access journals, repositories for publications and data and open discovery services
- **Capacity-building:** communities of practice and training

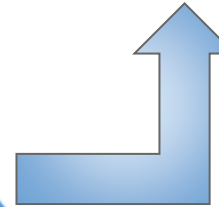




**POLICY** - Open Science policy development at the national level aligned across Africa and globally and supported by community efforts at the institutional level

**INFRASTRUCTURE** - Supporting digital services and connectivity at the institutional level

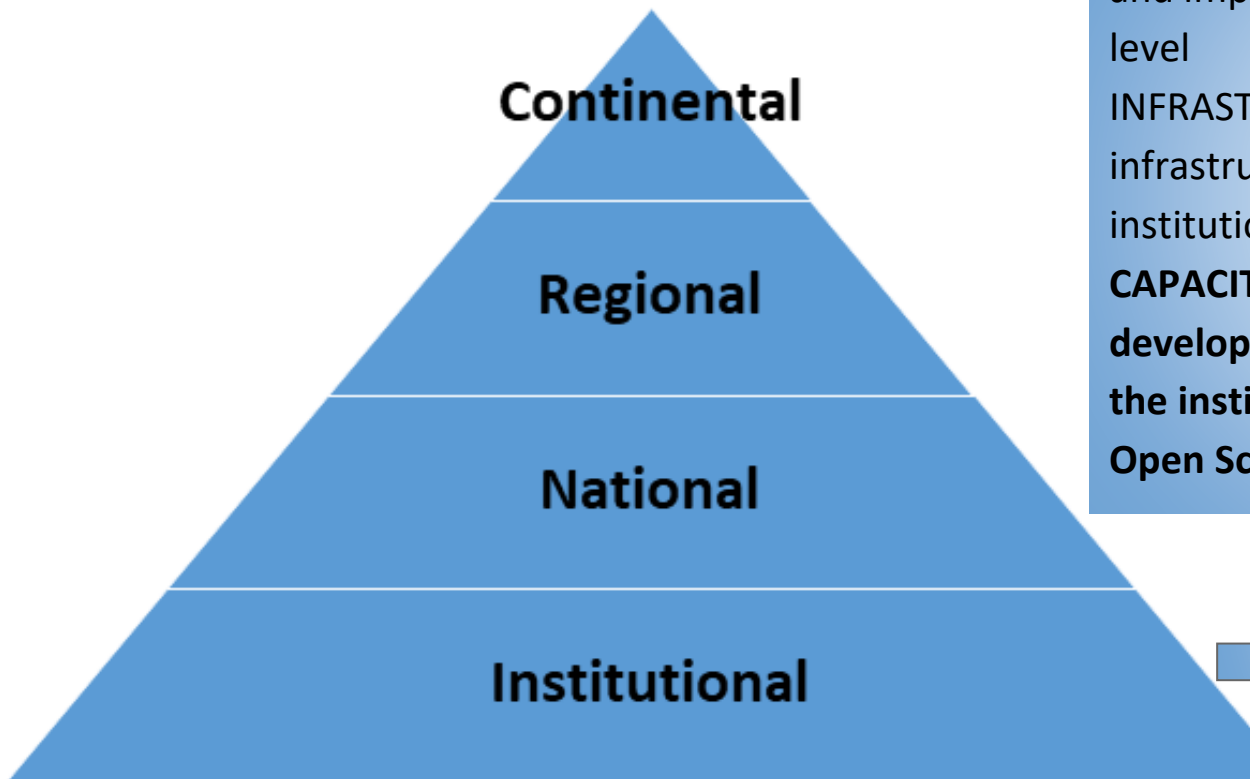
**CAPACITY-BUILDING** - training and skills development rolled out across the country



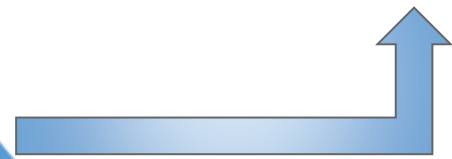
Key Activities/Collaborations:

- National Open Science Roadmaps - Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania and Uganda
- National shared open access repository and publishing platforms - Côte d'Ivoire, Nigeria and Uganda
- National Shared Platform for Journals, Micropublications and Preprints in Nigeria





**POLICY** - Open Science policy development and implementation at the institutional level  
**INFRASTRUCTURE** - supporting infrastructure developed for the institutional context  
**CAPACITY-BUILDING** - training and skills development for digital services specific to the institutional context; Early Career Open Science Researcher Programme



- Key Activities/Collaborations:
- Institutional OS Policy Development Workshops
  - **Early Career Open Science Researcher Programme**

**How can we work  
together to set up Open  
Science/Open Research  
skills development and  
training programmes on  
campus?**



**Thank you!**  
**Questions?**

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