UNESCO-LIBER hands-on workshop on adopting, adapting and taking advantage of the open science Recommendation toolkit

Organisers: LIBER Europe, UNESCO







This workshop aims to:

- bring together and empower open science communities and services: this is the very spirit of this workshop where people exchange ideas and build their pathways to implementing the UNESCO Recommendation on Open Science Principles, Values and 7 Areas of action
- identify common practices related to open science: use and share practices under the framework of the international UNESCO recommendation on Open Science, discover the example of the LIBER Strategy regarding Open Science, small groups of discussion and wrap-ups to share outputs, challenges and words of wisdom
- see what the best synergies are to deliver and operate services that work for many: sharing experience and reflecting on pathways for action is an effective way for fostering and enhancing synergies









The key learning outcomes will be:

- 1. discovering and adapting the UNESCO Open Science Toolkit
- 2. discovering the LIBER Strategy regarding Open Science and taking possible inspiration from it
- 3. taking inspiration from the shared open science roadmap or strategy by other participants
- 4. taking this opportunity to start developing/adapting the framework of OS skills and competencies for and with UNESCO
- 5. drafting or gathering elements for initiating, developing or enhancing an institutional or collaborative strategy for concrete action, training and capacity building

Have a look at the workshop programme here and the workshop take home notes here.









Welcome to the

UNESCO – LIBER

Hands-on workshop on adopting, adapting and taking advantage of the Recommendation on Open Science toolkit

 $\frac{https://www.opensciencefair.eu/workshops/unesco-liber-hands-on-workshop-on-adopting-adapting-and-taking-advantage-of-the-open-science-recommendation-toolkit}$

https://www.unesco.org/en/open-science - https://libereurope.eu/strategy/

http://opensciencefair.eu/images/OSFair%202023/LIBER-UNESCO_workshop_programme.pdf http://opensciencefair.eu/images/OSFair%202023/LIBER-UNESCO_take-home_notes-update.pdf

Monday 25 September 2023

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Dr Ana Peršić is Programme Specialist at the Section of Science Technology Innovation Policy at the UNESCO Headquarters in Paris.

An ecologist by training (Master in Ecological Sciences at the University of Padova, Italy and PhD in Ecotoxicology at the University of Paris South, France), Dr Ana Peršić joined UNESCO in April 2006 as Assistant Program Specialist serving the UNESCO's Man and the Biosphere Programme within the Division of Ecological and Earth Sciences. She then served as Science Specialist at the UNESCO Liaison Office in New York from 2011 to 2018.

Her work relates to strengthening the science-policy interface and the promotion of science technology and innovation in the implementation of the Sustainable Development Goals. Since 2019 her focus has been on open science – she coordinated the development of the UNESCO Recommendation on Open Science and is currently working towards its implementation.

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Julien Roche is University Librarian, Director of libraries and Learning center at université de Lille, France. He is also Chief research data officer for the university of Lille.

In July 2018, he was elected as LIBER Vice-President. In July 2022, he was approved as LIBER President.

Julien Roche also has several national responsibilities including co-chair of the "European and international" college of the French Open Science Committee since July 2018.

https://orcid.org/0000-0003-4000-2791



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Cécile Swiatek Cassafieres is Director of the library at université Paris Nanterre, France.

She is member of the Executive Board of the European league of research libraries (libereurope.eu) and SPARCEurope.

Expert on both the UNESCO Recommendations on OER (2019) and Open Science (2021), she is an expert with the French National Open Science Fund (FNSO, Calls for projects and SCOSS) and as an independent expert with the UNESCO's global partnership on Open Science since 2023.

https://fr.linkedin.com/in/cecileswiatek / https://orcid.org/0000-0003-1066-4559

Monday 25 September 2023





Martine Pronk is Executive Director of the LIBER Office.

She previously worked as head of Academic Services and a member of the senior management team at Utrecht University Library, The Netherlands. In this role, she had strategic responsibility for research and education support services, including in the field of Open Science.

Martine represented Utrecht University and University Library in several national and international networks: the Dutch implementation network Digital Competence Centers, the LERU Information and Open Access Policy Group, and the European Open Science Cloud Association. At Utrecht University she co-led the Track Open Access for the Open Science Programme.

https://libereurope.eu/member/martine-pronk/







Workshop schedule in a nutshell

- 1. set of three 5-mn presentations : workshop introduction, UNESCO, LIBER
- 2. participants' input about Open implementing an Open Science strategy at an institutional/network level : main challenges and pitfalls
- 3. two break-out groups rounds: small groups of discussion working on how to take advantage and implement the UNESCO's recommendation on Open science Principles, Values and 7 Areas of action in the institutions and networks
- 4. wrap-up, concluding remarks and farewell

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Context / Challenges and Pitfalls

The UNESCO Recommendation on Open Science was adopted by the General Conference of UNESCO at its 41st session, in November 2021.

A UNESCO Open Science **Toolkit** is being published (website and zenodo).

Member States will be asked to report their activity to UNESCO (Open Science **Monitoring Framework**).

LIBER provides many OS **training** and **support** material.

LIBER is working on Open Science **indicators** and dedicated a Steering Committee to « **Advancing Open Science** » topics in its current strategy. YOU

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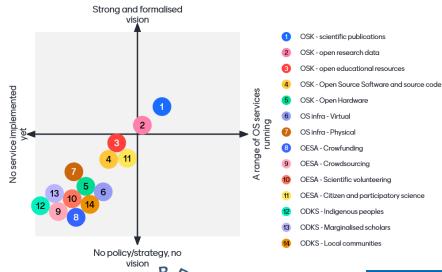








Open Science implementation: where are you at?



Monday 25 September 2023





Challenges (and pitfalls)

23 responses

Human resources	Changing mindset	Researcher uptake and culture change
Skills and capabilities	Academic model	Bureaucracy, funding, culture
Lack of human resouces and lack of long term funding	Developing friendly tools for researchers	Resources
Traditional view of science	Funding to allow sustainbility	Finding consense
Sustainability	Legal challenges	Technical challenges, to many different repositories and issue with
Resourses	Communication of our resourced	researchers
		Bureaucracy

A diversity of opcions that are not frecuent in my country

Non user friendly system to achieve green open access

Researchers reluctant to learn new

Sustainable solution

Ethics review, finding committee, arranging assessments before starting research

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Ligue des Bibliothèques Européennes de Recherche



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Association of European Research Libraries



LIBER - UNESCO

TAKING ADVANTAGE OF THE OPEN SCIENCE RECOMMENDATION TOOLKIT

Julien ROCHE LIBER President







420 libraries

ONE mission

DEVOTED TO OPEN SCIENCE

Policies, tools and infrastructures - reshaping research processes and mindsets in favour of Open.

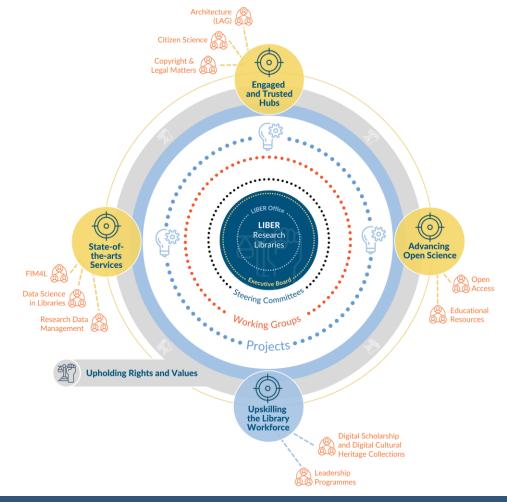
WORLD-CLASS RESEARCH

Knowledge and training so that libraries can support outstanding research and — by extension — the growth and sharing of knowledge.





Research libraries in 2027 - Innovation Through Collaboration





Global Partners

Speaking up with other library and research organisations for common values and collaborating on projects and strategic issues.



































Main Activities

Networking | Learning | Training | Advocacy



Advocacy

Putting the priorities of research libraries and their users on the European policy agenda.

- Instrumental in achieving a TDM exception for research
- Served on the EC's Open Science Policy Platform
- Called for better policy making procedures for education and science within the Digital Services Act.
- Provide guidance so that libraries can advocate on a local and national level



Conferences & Events

Winter Event

Launched in 2022. Two days of dynamic, forward-looking sessions designed for and by the LIBER network.

Florence, Italy - 23-24 November 2023

Annual Conference

Attended by 400+ research library professionals. Keynote Speakers. Workshops. Social Events.

Limassol, Cyprus – 3-5 July 2024



Architecture Seminar

To further the exchange of experience between librarians and architects raise awareness of new projects and trends.

Brussels, Belgium - 24 April 2024



Leadership Seminars

LIBER Journées

For existing library directors, forging bold new strategic paths.

Berlin, Germany – 29-31 May 2024

Emerging Leaders

For the next generation of library leaders: classroom and action learning and a mentorship.

2025 - 2026







Resources

Sharing insights and providing guidance on trends and current issues.

- Peer-reviewed journal
- Reports
- Factsheets
- Webinars
- Best-practices
- Presentations





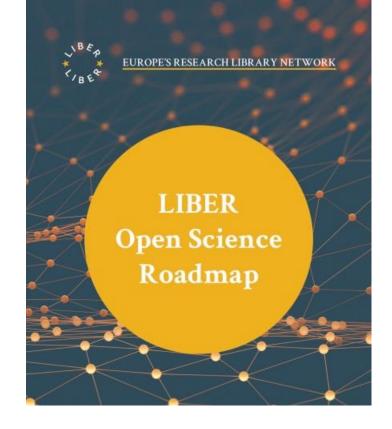
Section 1
CITIZEN SCIENCE
SKILLING FOR
LIBRARY STAFF,
RESEARCHERS,
AND THE PUBLIC

Section Editor Jitka Stilund Hansen

From the LIBER Citizen Science Working Group







Produced by the LIBER Working Group on Digital Skills for Library Staff & Researchers with input from other LIBER Working Groups, 2020



Discipline-specific skills needed to practice open science (does not include generic computer skills, wider librarianship skills and personal competencies)

Mapped to LIBER OS Roadmap 7 focus areas, Digeomp 2.0 framework and FOSTER learning resources

Webinars and publications

On our website: https://libereurope.eu/webinar-recordings/

On our youtube channel:

https://www.youtube.com/user/libervideo

On our Zenodo community page :

https://zenodo.org/communities/liber-publications



International Projects

We bring to projects the strengths and expertise of our network, in areas such as:

- Leading the uptake of Open Science practices
- Promoting Innovative Scholarly Communication
- Supporting the development of digital skills and associated training activities
- Fostering the development and use of research (e)infrastructures and services









Next event – Tuesday 3rd October 16:00-17:30

Finland, France, and OpenAIRE OS monitors - Live on https://www.youtube.com/user/RepositoriosLA

https://libereurope.eu/event/open-science-monitoring-in-europe-a-liber-unesco-and-la-referencia-webinar/https://www.lareferencia.info/es/component/k2/item/311-monitoreo-de-la-ciencia-abierta-europa









Thank you

https://libereurope.eu/





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UNESCO Open Science Toolkit: Supporting the implementation of the UNESCO Recommendation on Open Science

Ana Persic, UNESCO



Global importance of science

Achieving SDGs and overcoming the global challenges require an efficient, equitable, transparent, collaborative and inclusive science, that can lead to innovative and sustainable solutions.



Everyone has the right to freely share in scientific advancement and its benefits.

Article 27 of the Universal declaration on Human Rights



Need for science to be more **connected to societal needs** and **more accessible for all**. Need to **bridge the STI gaps** between and within countries.

Why a UNESCO Recommendation on Open Science?

- Need for a common definition of open science
- Need for a shared set of values and principles
- Need for an international policy and action framework



In 2021, at the UNESCO 41st General Conference, 193 Member States adopted the first international standardsetting instrument on open science.

UNESCO Recommendations:

Legal instruments that formulate **principles and norms** for the international regulation of a particular issue.

Inviting Member States to take legislative or other steps required in conformity with the constitutional practice of each State and the nature of the issue, to apply the principles and norms aforesaid within their respective territories.

Definition of open science

Open Science:

- makes multilingual scientific knowledge openly available, accessible and reusable for everyone,
- increases scientific collaborations and sharing of information for the benefits of science and society,
- opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.



Key pillars of open science



<u>Open Scientific Knowledge</u>: scientific publications, research data, software, source code, hardware and educational resources available in the public domain or under copyright, released under an open license

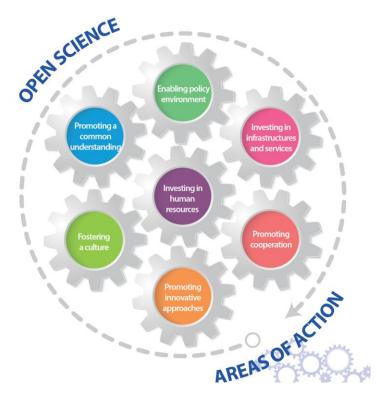
<u>Open Science infrastructures</u>: scientific equipment or sets of instruments, knowledge-based resources such as collections, repositories, archives and scientific data, open computational and digital infrastructures,

<u>Open engagement of societal actors</u>: collaboration between scientists and societal actors beyond the scientific community, opening up practices and tools that are part of the research cycle by making the scientific process more inclusive and accessible to the broader inquiring society

<u>Open dialogue with other knowledge systems</u>: recognition of richness and complementarities between diverse epistemologies, including indigenous knowledge systems



Key objectives – Key areas of action



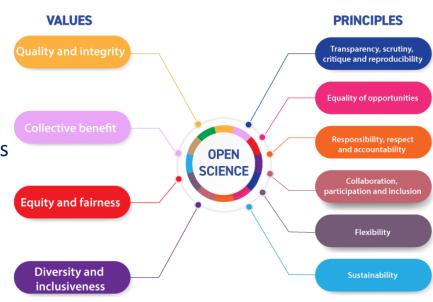
- 1. Promoting a **common understanding** of OS and its associated benefits and challenges, as well as the **diverse paths** to OS
- 2. Developing an **enabling policy environment** for OS
- 3. Investing in **infrastructure** and services for OS
- 4. Investing in training, education, digital literacy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

Implementation of the UNESCO Recommendation on Open Science

Change in the culture of science:

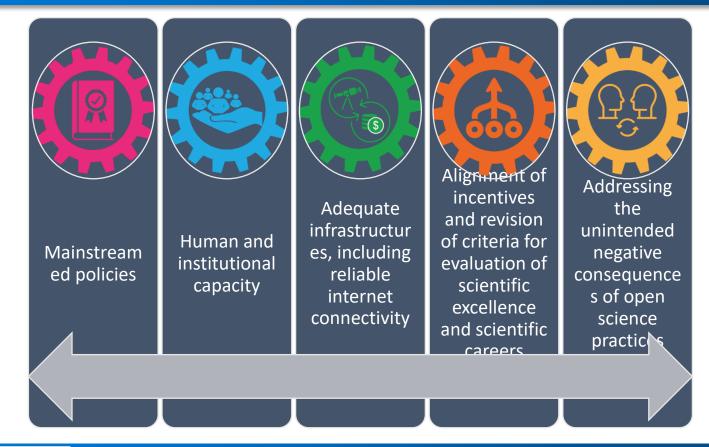
- From competition to collaboration
- From science as a product to science as a process
- ❖ From science for a selected few to science for all

Science as a Global Public Good





Key challenges and high impact areas for the implementation of the Recommendation



UNESCO Open Science Working Groups









UNESCO OPEN SCIENCE · TOOLKIT



GUIDES

- **Developing policies** for open science
- Building capacity for open science
- **Funding** open science
- Bolstering open science infrastructures for all
- Engaging society in open science
- Supporting open source hardware for open science

CHECKLISTS

- Checklist for **universities** on implementing the UNESCO Recommendation on Open Science

 Checklist for open access publishers on implementing the UNESCO Recommendation on Open Science

- Checklist for an institutional open science action plan

FACTSHEETS

- Understanding open science
- Identifying predatory academic journals and conferences
- Intellectual property rights and open science

OPEN INDEXES OF OPEN SCIENCE RESOURCES

- UNESCO Open Science Capacity Building index
- UNESCO Index of Open Science Knowledge Sharing Platforms



https://www.unesco.org/en/open-science/toolkit

Checklist for universities

- As a university practicing open science, how are you...
- Nurturing open methods
- **☐** Mainstreaming open practices
- Using and creating scientific infrastructures
- ☐ Thinking beyond scientific articles
- ☐ Supporting inclusive engagement and dialogue

Are your institutional values aligned with the core values and principles of the UNESCO Recommendation on Open Science?



Prepared in partnership with Library Support for Embedded NREN Services and E-infrastructure (LIBSENSE)



Guide on developing policies for open science

Why an OS policy is useful at the national or institutional level?
 Build long-term stability, clarity of funding & resourcing, show commitment, educate and engage, remove legal and structural barriers,

UNESCO OPEN SCIENCE - TOOLKIT GUIDAN

Who should be involved in the development and when?
 All relevant open science actors, especially those most affected, with focus on academics and researchers

Key factors to consider in developing an OS policy:
 Mainstreaming, alignment with existing policies across sectors, clarity of rights & responsibilities, enforcement, monitoring and evaluation, learning and adaptation, etc.



Join the Global Open Science Movement



Contact: openscience@unesco.org

Join the UNESCO Open Science Partnership!

Contribute to global open science calls!

Engage in the global discussions!

Be in touch!

UNESCO Open science website:

https://on.unesco.org/openscience



Thank you



Documents

Matrix for break-out groups to work on

LIBER strategy deck

LIBER Services brochure

LIBER Open Science Roadmap

LIBER cards - Open science skills wheel

UNESCO Recommendation

UNESCO Toolkits elements

take-home notes

workshop programme

UNESCO brochure: Introduction to the

Recommendation on Open Science

paper

https://zenodo.org/record/7696568

https://libereurope.eu/wp-content/uploads/2021/10/Liber_services_A4_digi.pdf

https://zenodo.org/record/1303002

https://zenodo.org/record/4727592

https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en

https://zenodo.org/communities/unesco-science

paper

paper

https://unesdoc.unesco.org/ark:/48223/pf0000383771_eng

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Groups

Small groups of discussion - how to implement the UNESCO's recommendation

Principles
Values
7 Areas of action





Matrix for the break-out groups





UNESCO – LIBER

Adopting, adapting and taking advantage of the Recommendation on Open Science toolkit

Implementing the UNESCO Recommendation on Open Science (2021)

website https://www.unesco.org/en/open-science and

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

UNESCO library https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en

Using the UNESCO Open Science Toolkit

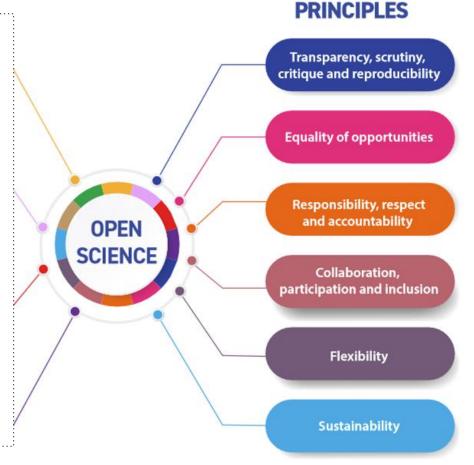
website https://www.unesco.org/en/open-science/toolkit zenodo https://zenodo.org/communities/unesco-science

Inspiration from LIBER publications https://zenodo.org/communities/liber-publications/ (Re) using LIBER training material https://libereurope.eu/webinar-recordings/ and https://www.youtube.com/user/libervideo





What can I adopt from the UNESCO toolkit and/or use from the LIBER material?







Adopting, adapting and taking advantage of the Recommendation on Open Science toolkit https://www.unesco.org/en/open-science - https://libereurope.eu/strategy/

Principles - personal 1

I can showcase and share

UNESCO's Global Call for Best Practices in Open Science

To assist Member States with the implementation of the UNESCO Recommendation on Open Science, UNESCO is launching a Global Call for Best Practices in Open Science to collect best practices in open science at individual, institutional, national, regional and international levels with a particular focus on the seven priority areas highlighted in the Recommendation (http://bit.ly/3VI5oHP).

The resulting compendium of best practices will be made widely available and broadly disseminated and will be a useful tool to better understand the current landscape of best practices in open science, to identify possible gaps and challenges, share lessons learned improve knowledge and understanding.

If you are involved in an open science initiative that you consider to be a good example or best practice in open science, please provide your input to the survey (available in English, French and Spanish)

I can get inspiration from / partner with / look at





Action plan; capacity building; training priorities - personal 2

Action plan (main steps)

Capacity building

Training priorities







What can I adopt from the UNESCO toolkit and/or use from the LIBER material?





Adopting, adapting and taking advantage of the Recommendation on Open Science toolkit https://libereurope.eu/strategy/

Values - personal 1

I can enhance

I should develop

I might consider





Action plan; capacity building; training priorities - personal 2

Action plan (main steps)

Capacity building

Training priorities





7 areas of action

Developing an enabling policy environment Investing in infrastructures Promoting a Investing in and services common human ınderstanding resources Fosterina **Promoting** a culture cooperation of Open **Promoting** innovative approaches

What can I adopt from the UNESCO toolkit and/or use from the LIBER material?





7 areas of action - personal 1

Train, train, train

Mapping open and internationally relevant open science capacity building and training modules

To support the implementation of the UNESCO Recommendation on Open Science

The UNESCO Working Group on Open Science Capacity Building is collating information about available training modules on open science for different open science actors to map existing resources, identify the gaps and work to fill those gaps.

This questionnaire is designed to collect the existing, openly available, multi-nationally relevant training courses on open science, in different languages and for different audiences.

Please fill in this form for **each** training material (course, module, etc.) that you identify as absent in this index: https://www.unesco.org/en/open-science/capacity-building-index

My first action(s) for a quick victory

Useful tips and contacts







Action plan; capacity building; training priorities - personal 2

Action plan (main steps)

Capacity building

Training priorities

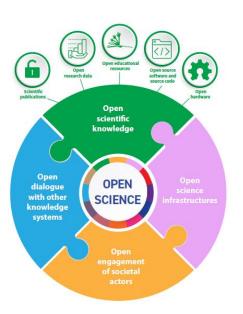


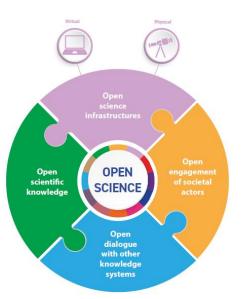


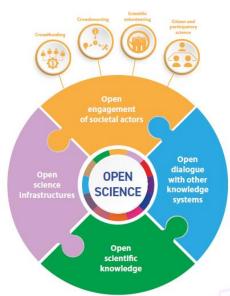
Notes and contacts

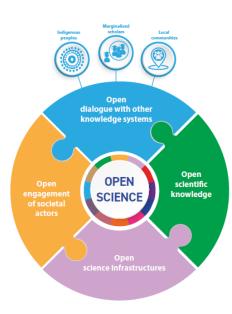












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Useful resources

LIBER strategy deck LIBER OS Roadmap LIBER Open science skills **UNESCO** Recommendation **UNESCO** Toolkits elements https://zenodo.org/record/7696568

https://zenodo.org/record/1303002

https://zenodo.org/record/4727592

https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en

https://zenodo.org/communities/unesco-science







Groups feedback

Your input and your words of wisdom are the best concluding remarks!

Tip us! **How to implement** the UNESCO's recommendation What did you find **useful** either in the UNESCO Toolkit and LIBER resources

Principles
Values
7 Areas of action





See you for the Youtube live on October 3, 4PM CEST to discuss Open Science Monitoring in Europe

with LIBER, UNESCO, LA Referencia, Finland, France, and OpenAIRE

https://www.youtube.com/user/RepositoriosLA

https://libereurope.eu/event/open-science-monitoring-in-europe-a-liber-unesco-and-la-referencia-webinar/







