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First meeting of the UNESCO Working Group on Open Science Capacity Building



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**UNESCO Recommendation
on Open Science**

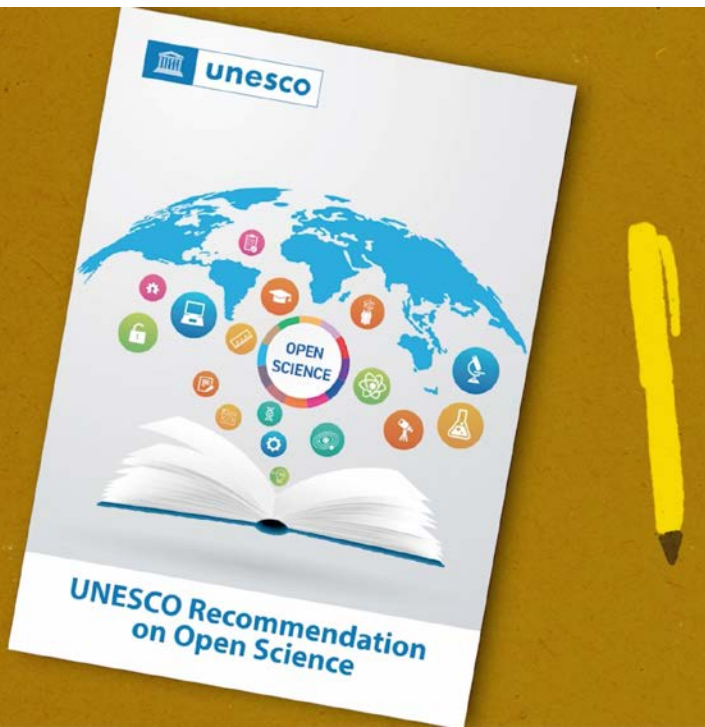


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Please **mute your microphone** and keep your **camera off** when not speaking.

Please share your **questions and inputs** in the chat box...

or **ask for the floor by raising the hand** during the open discussion.



The session will be recorded.

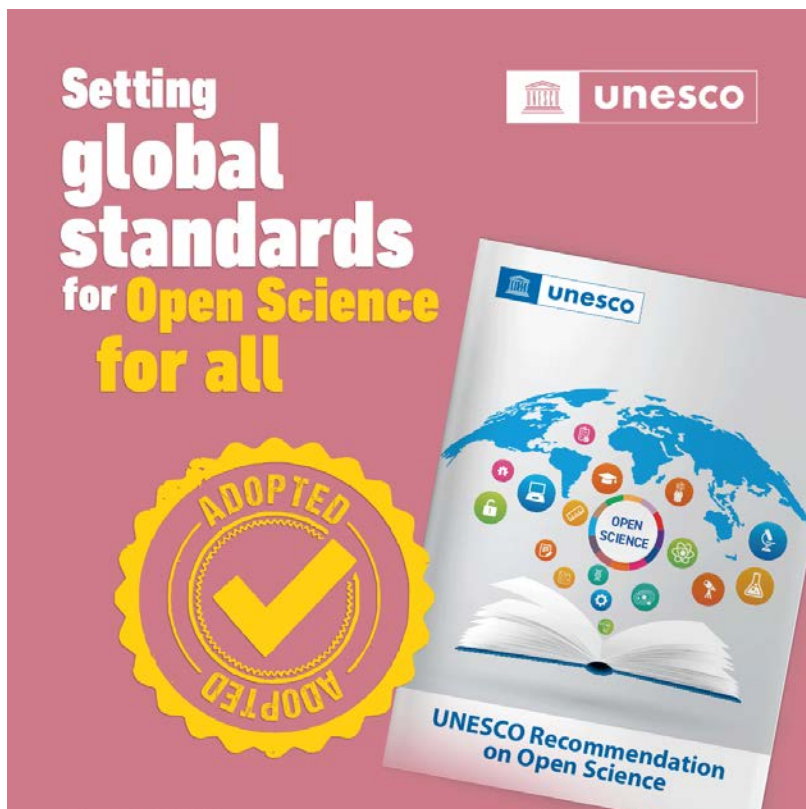
Quick Update



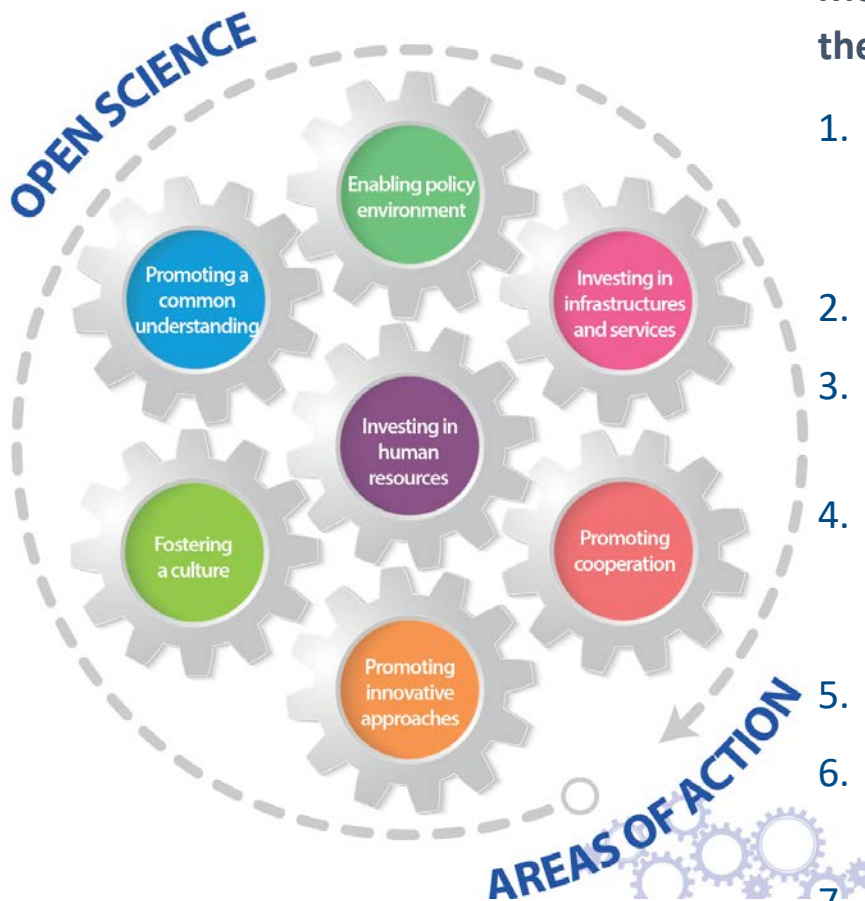
- At the 41st session of the General Conference of UNESCO (November 2021) 193 Member States unanimously adopted the UNESCO Recommendation on Open Science
- Developed through a regionally balanced, multistakeholder, inclusive and transparent consultation process, this landmark international agreement defines shared values and principles for open science, and identifies measures to make science more accessible, the scientific process more inclusive and the outputs of science more readily available and relevant for society
- The assistance, support and promotion by numerous actors from all around the world in developing and leading to the successful adoption of the Recommendation is well acknowledged and appreciated.

Highlights of the Recommendation

- ❖ It is the first **international normative instrument** on Open Science;
- ❖ it contains the first **internationally agreed definition** of Open Science;
- ❖ it spells out the consensus **core values and guiding principles** of Open Science;
- ❖ it addresses **multiple actors and stakeholders** of Open Science;
- ❖ It recommends **actions on different levels** to operationalize the principles of Open Science;
- ❖ it proposes **innovative approaches for Open Science at different stages** of the scientific cycle;
- ❖ it calls for development of a **comprehensive Open Science monitoring framework**.



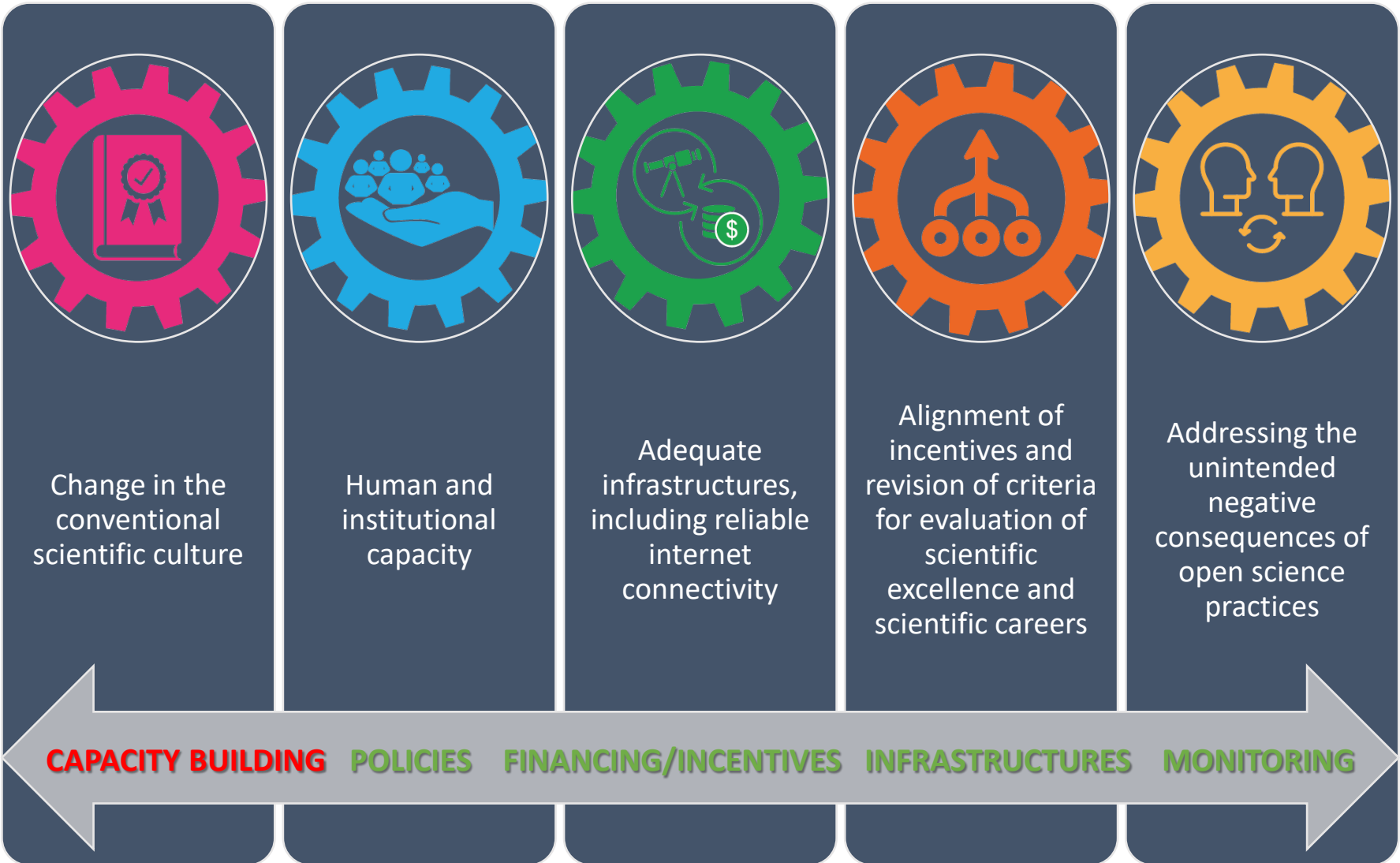
Key Objectives – Key Areas of Action



Member States are encouraged to prioritise seven areas in their implementation of the *Recommendation*:

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 which contribute to OS
4. Investing in training, education, digital literacy and capacity-building, to enable researchers and other stakeholders to participate in OS
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 co-operation in the context of OS with a view to reducing digital, technological and knowledge gaps.

Key challenges and high impact areas for the implementation of the UNESCO OSR



Implementation of the UNESCO Recommendation on Open Science

At the international level...

- ❖ Developing a series of supporting tools - technical briefs, fact sheets and guidelines
- ❖ Collecting/mapping existing open science policies and strategies
- ❖ Collecting and sharing best practices
- ❖ Analyzing open science financing mechanisms and incentives
- ❖ Promoting open science infrastructures
- ❖ Building capacity
- ❖ Developing an open science monitoring framework

Partners

- ❖ Global Open Science Partnership
- ❖ Steering Committee for Open Science
- ❖ Open Science Working Groups



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Implementation of the UNESCO Recommendation on Open Science

Working Groups	Deliverables
OS capacity building	<ul style="list-style-type: none">• Compilation/index of the existing Open Science training modules and materials• Creation and delivery of new and additional necessary training modules on open science for different open science actors
OS policies and strategies	Global repository of open science policy instruments
OS financing and incentives	Proposals for regional and thematic open science funding mechanisms and recommendations for revision of the current research careers assessments and evaluation criteria
OS infrastructures	Support for /development of international, regional and thematic open science platforms for sharing of knowledge and best practices. Specific focus will be on thematic platforms in UNESCO's priority areas, including biodiversity, water, disaster risk reduction, geosciences, ocean sciences, climate change...
OS monitoring framework	Global monitoring framework for open science



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Objectives of the Working Group



Open Science Capacity Building Working Group – Who are its members?



Open-ended, technical, multidisciplinary and multistakeholder group

(126 registered – over 40 countries)

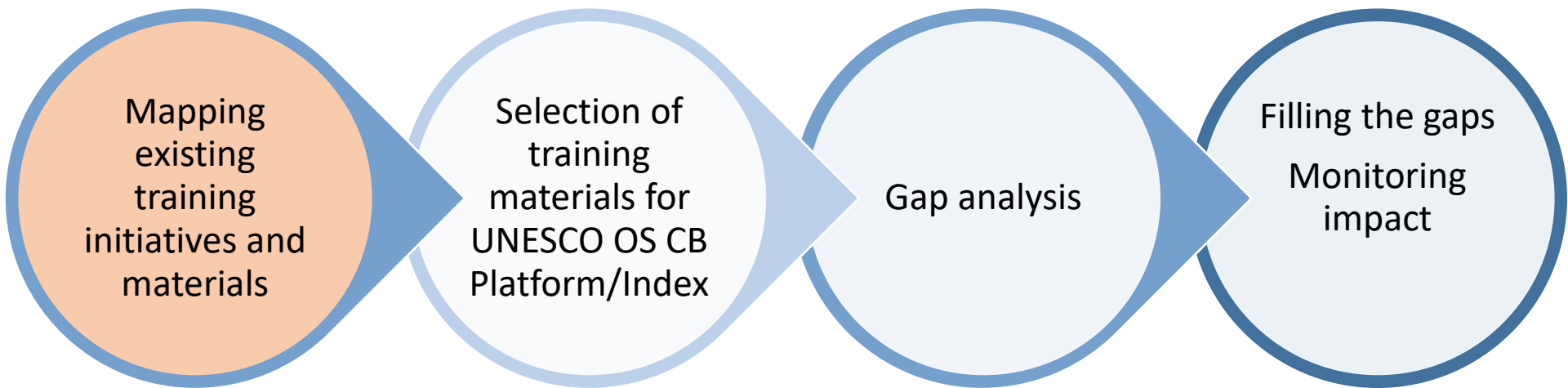
All the regions represented with representatives from :

- ❖ **Universities**
- ❖ **Research institutes**, from early career researcher to research directors, and open science experts/officers; from medical and natural sciences to human sciences
- ❖ **Education Institutes, and Education initiatives**, from Educators to decision makers/managers.
- ❖ **Citizen science experts**
- ❖ **National Academies of Science**
- ❖ **Associations of Universities**
- ❖ **Librarians**
- ❖ **Open science, open education initiatives**
- ❖ **Research Funders**
- ❖ **OA Publishers**
- ❖ **Permanent Delegations to UNESCO**
- ❖ **UNESCO CAT 2 Center and UNESCO Chairs**



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Open Science Capacity Building Working Group – What are the objectives?



Key capacity building objectives



The main objective of the open science capacity building and training activities is **to create, enhance and develop the capacity of different open science actors at individual, institutional and national level to understand, design, implement, supervise and monitor open science practices in line with the UNESCO Recommendation on Open Science.**

Key areas of OS capacity building - in line with the UNESCO OSR

Open Science Learning/Training Modules

Open Science: Definition/Scope/Values/Principles

Open Scientific Knowledge

- ☐ Open Access
- ☐ Open Research Data
- ☐ Open Educational Resources
- ☐ Open Source/Software/Source code
- ☐ Open Hardware

Open Science Infrastructures

Open Science and Engagement of Societal Actors

Open Science and Indigenous Knowledge Systems

Open Science Policy Instruments

Open Science Funding and Incentives

Open Science and IPRs

Open Science for Early Career Scientists

Open Science Monitoring



Key questions for this meeting

- ❖ What are the main capacity building needs for open science?
- ❖ What are the main challenges for OS capacity building?
- ❖ What are the existing/successful OS training initiatives?
- ❖ What are the existing capacity building materials ?
- ❖ What are their strengths and weaknesses?
- ❖ What is the role of UNESCO in terms of open science capacity building?





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Existing initiatives,
opportunities and gaps for
Open Science capacity building





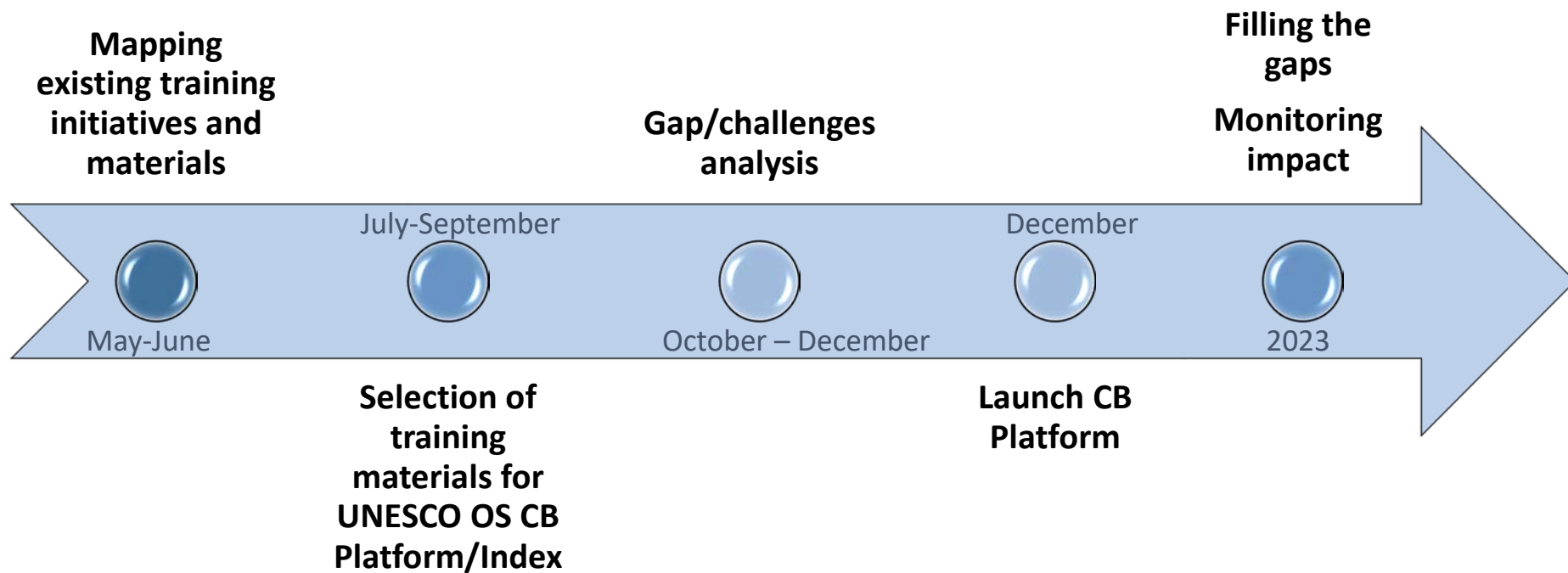
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Next Steps



Next Steps



Implementation of the UNESCO Recommendation on Open Science

Five Open Science Working Groups

Calendar for Working Groups

Date (2022)	Title
12 May	Open Science Capacity Building
23 May	Open Science Policies and Policy Instruments
9 June	Open Science Funding and Incentives
7 July	Open Science Infrastructures
15 September	Open Science Monitoring Framework



Keep in touch



UNESCO Open science website:
<https://on.unesco.org/openscience>



Contact: openscience@unesco.org



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