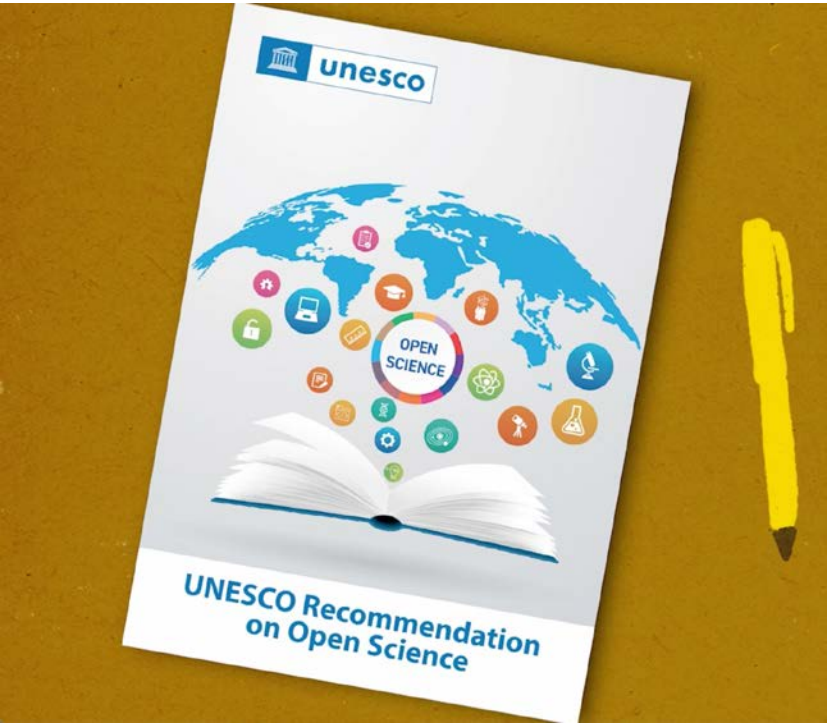
First meeting of the UNESCO Working Group on Open Science Policies and Policy Instruments

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.

UNESCO Recommendation on Open Science

In 2021, at the UNESCO 41st General Conference, 193 Members States adopted the first international standard-setting instrument on Open Science in the form of a UNESCO Recommendation on Open Science.

UNESCO Recommendations

Legal instruments in which “the General Conference formulates principles and norms for the international regulation of any particular question and invites Member States to take whatever legislative or other steps may be required in conformity with the constitutional practice of each State and the nature of the question under consideration to apply the principles and norms aforesaid within their respective territories”.

Highlights of the Recommendation

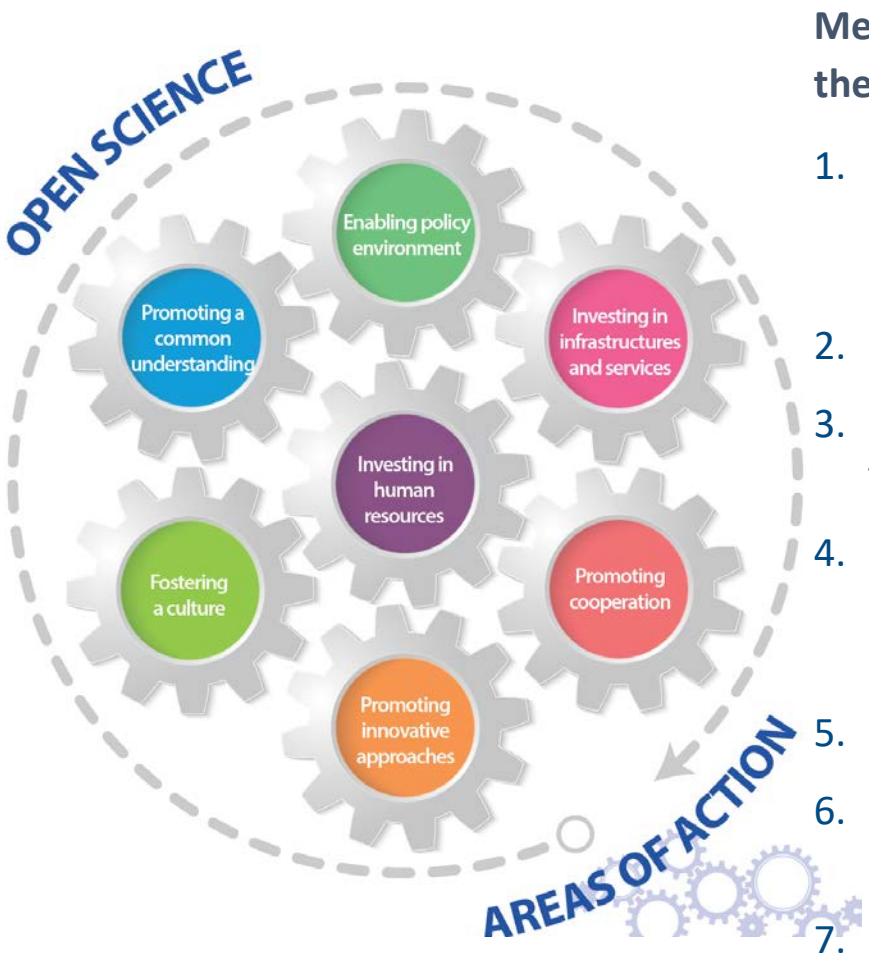
- It is the first **international normative instrument** on Open Science;
- it contains the first **internationally agreed definition** of Open Science;
- it spells out the consensus **core values and guiding principles** of Open Science;
- it addresses **multiple actors and stakeholders** of Open Science;
- 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**.

Definition of Open Science

Open Science:

- makes 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.

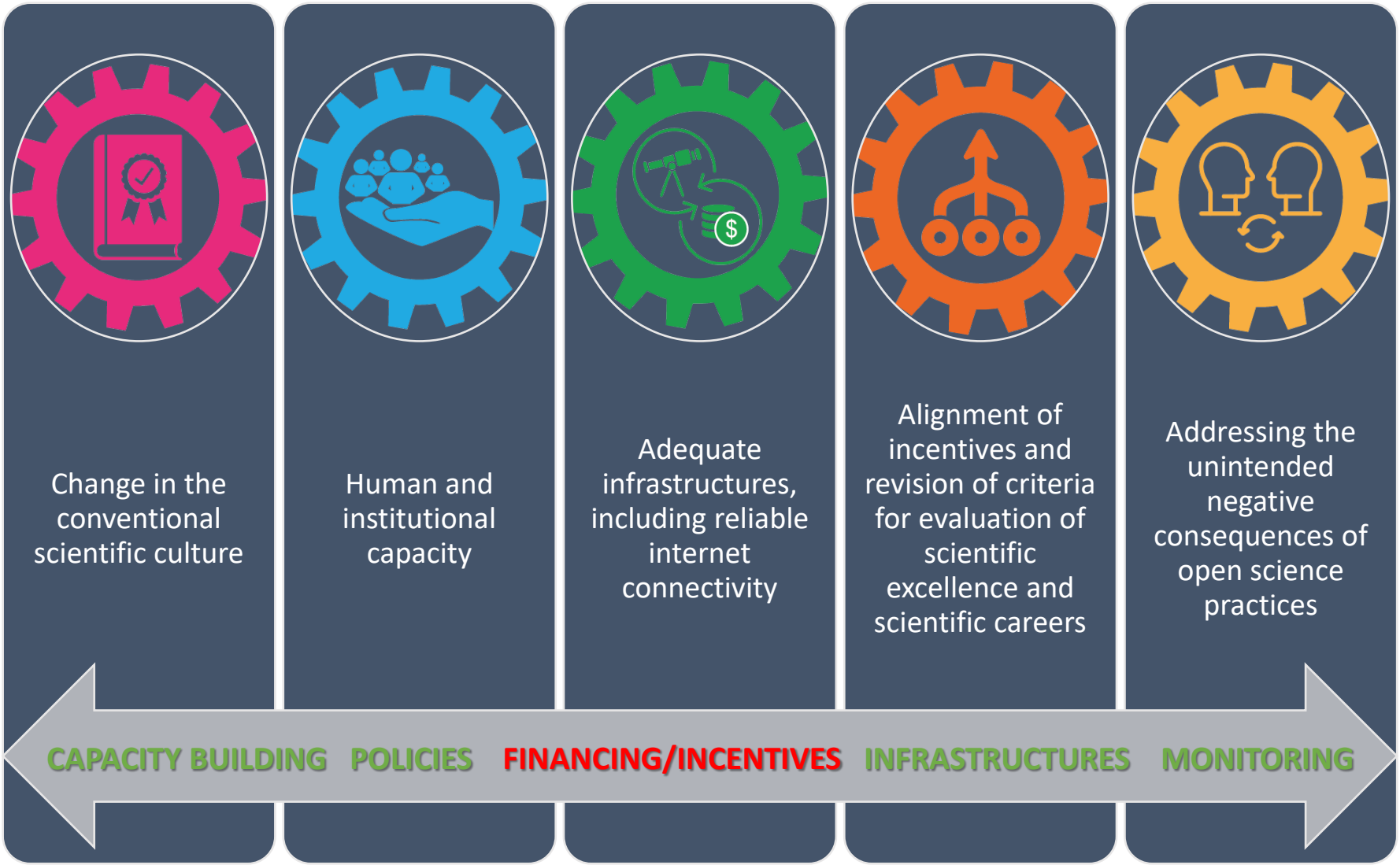
Key Objectives – Key Areas of Action



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



Addressing the challenges for OSR Implementation

Working Groups	Deliverables
OS capacity building	• 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 • Development of Open Science Policy Guide
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

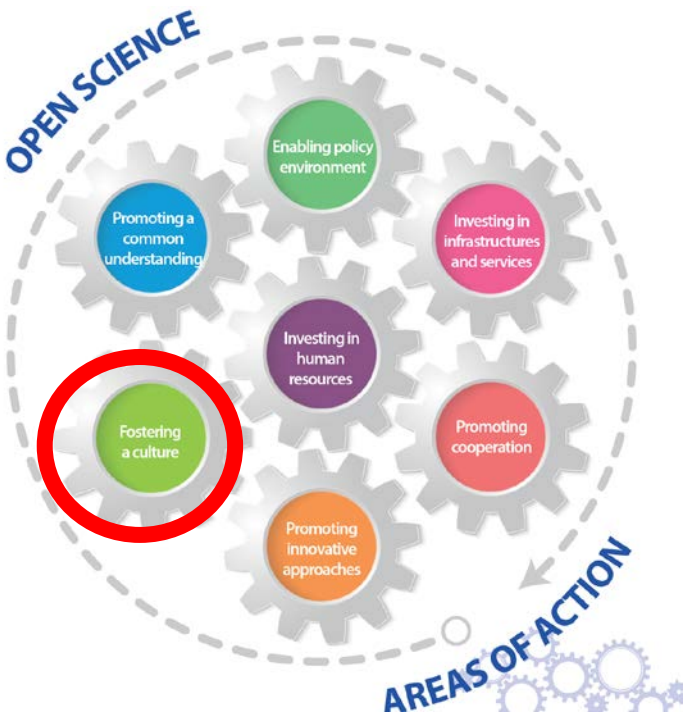
First meeting of the UNESCO Working Group on Funding and Incentives

13:10 - 13:40	**Discussion on strategies for transforming the research assessment system by aligning incentives for open science: opportunities and challenges**
13:40- 14:10	**Discussion on existing funding mechanisms for open science, the outlook of the future investments and needed funding mechanisms on regional and international levels**

First meeting of the
UNESCO Working Group on Funding and Incentives

Discussion on strategies for transforming the research assessment system by aligning incentives for open science: opportunities and challenges

Aligning incentives for Open Science – Provisions from the Recommendation



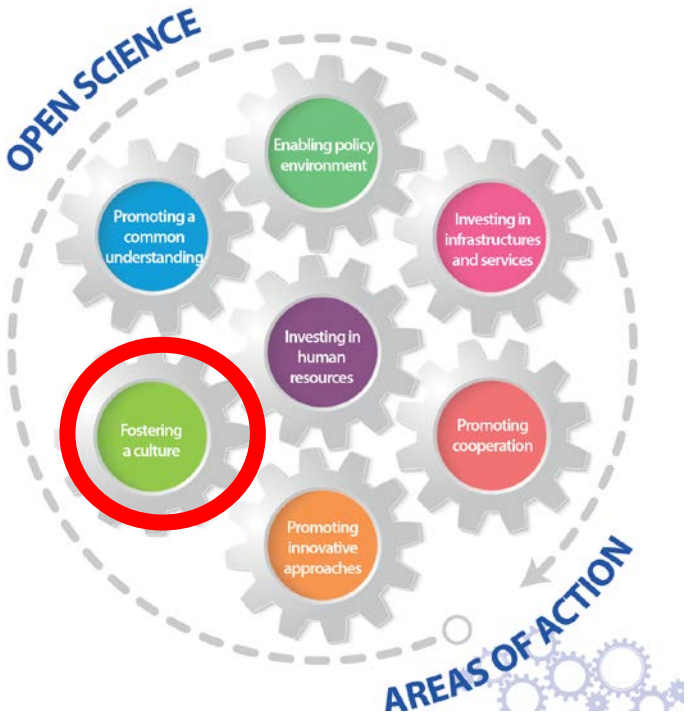
AREAS OF ACTION:

(v) Fostering a culture of open science and aligning incentives for open science

20. …Assessment of scientific contribution and career progression rewarding good open science practices is needed for operationalization of open science.

20b. Reviewing research assessment and career evaluation systems in order to align them with the principles of open science. …evaluation systems should take into account the wide breadth of missions within the knowledge creation environment. These missions come with different forms of knowledge creation and communication, not limited to publishing in peer reviewed international journals.

Developing an enabling policy environment for open science



20.c Promoting the development and implementation of evaluation and assessment systems that:

- **build on the existing efforts** to improve the ways in which the scientific outputs are evaluated, such as the **2012 San Francisco Declaration on Research Assessment,** with an increased **focus on the quality of research outputs rather than quantity**, and by fit-for-purpose use of diversified indicators and processes that forego the use of journal based metrics such as the journal impact factor;
- **give value to all relevant research activities and scientific outputs** including high-quality FAIR data and metadata, well-documented and reusable software, protocols and workflows, machine-readable summaries of findings, and teaching, outreach and engagement of societal actors;
- **take into account evidence of research impact and knowledge exchange**, such as widening participation in the research process, influence on policy and practice and engaging in open innovation with partners beyond academia…
- and the fact that **assessment of researchers against open science criteria should be fit for different stages of careers**..

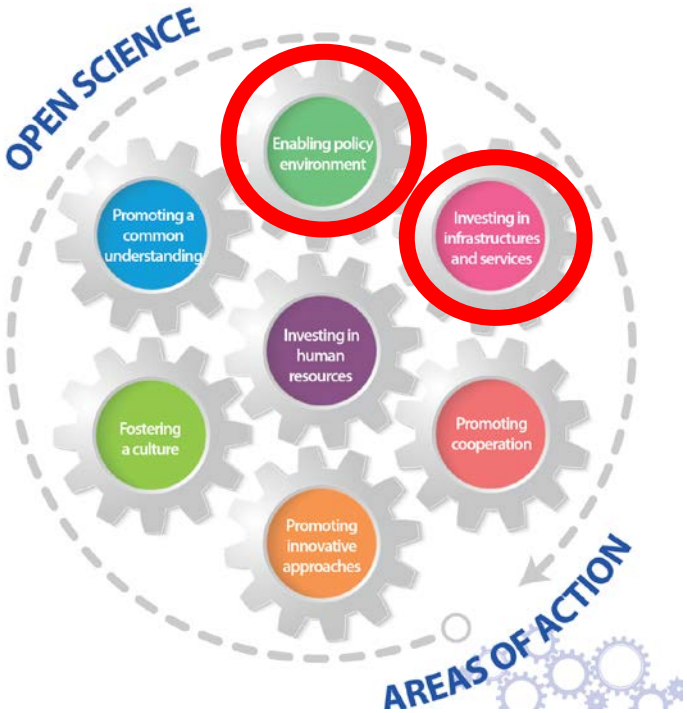
Transforming the research assessment system by aligning incentives for open science: opportunities and challenges

- **Ms Sarah Moore**, International Science Council, GYA-IAP-ISC Initiative on Research Evaluation
- **Ms Silvia Bottaro**, European Commission, Agreement on reforming research assessment
- **Ms Dominique Babini**, on behalf of Laura Rovelli, coordinator of FOLEC-CLACSO, Research assessment incentives in Latin America and the Caribbean
- **Mr Stephen Curry**, Imperial College, London, San Francisco Declaration on Research Assessment (DORA)

First meeting of the
UNESCO Working Group on Funding and Incentives

Discussion on existing funding mechanisms for open science, the outlook of the future investments and the needed funding mechanisms on regional and international levels

Aligning incentives for Open Science – Provisions from the Recommendation



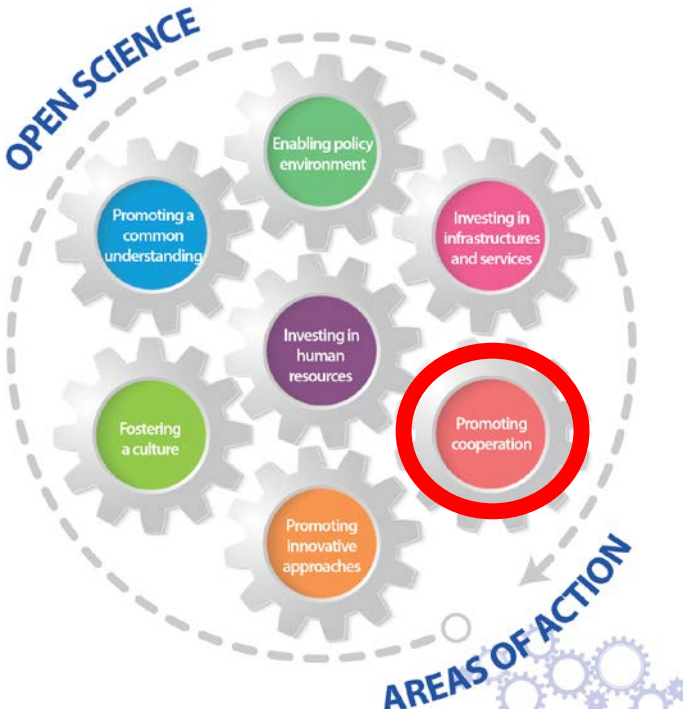
AREAS OF ACTION:

(II) Developing an enabling policy environment for open science

17. j Designing, implementing and monitoring funding and investment policies and strategies for science based on the core values and principles of open science. The **costs** associated with operationalization of open science relate to the support of open science research, publishing, data and coding practices, the development and adoption of open science infrastructures and services, capacity building of all actors and innovative, highly collaborative and participatory approaches to the scientific enterprise.

(iii) Investing in open science infrastructures and services

Funding for Open Science – Provisions from the Recommendation

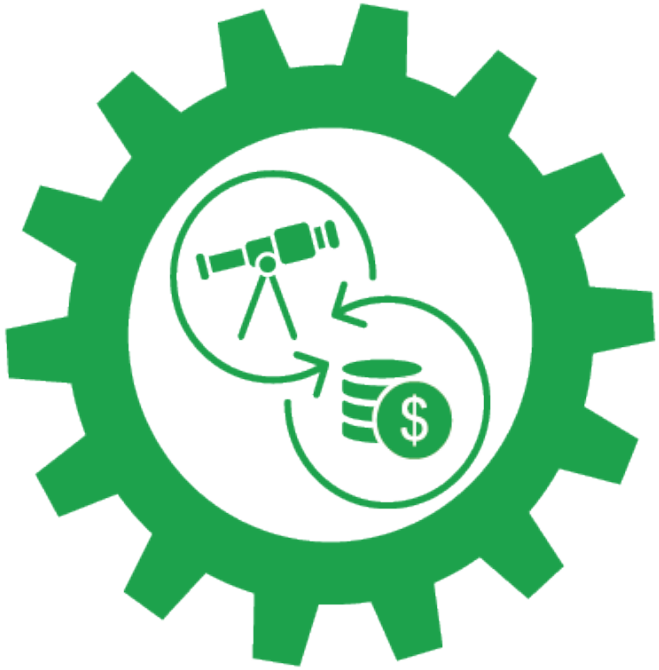


AREAS OF ACTION:

(vii) Promoting international and multi-stakeholder cooperation in the context of open science and with a view to reducing digital, technological and knowledge gaps

22.c Establishing regional and international funding mechanisms for promoting and strengthening open science and identifying those mechanisms, including partnerships, which can support international, regional and national efforts.

Funding mechanisms for open science



- **Ms Hannah Hope**, Open Research Lead, Wellcome
- **Ms Caitlin Turner**, Open Research Funders Group (ORFG)
- **Ms Claire Redhead**, Executive Director, Open Access Scholarly Publishers Association (OASPA)

First meeting of the
UNESCO Working Group on Open Science Funding and Incentives

Objectives of the Working Group

Open Science Funding and Incentives Working Group – Who are its members?

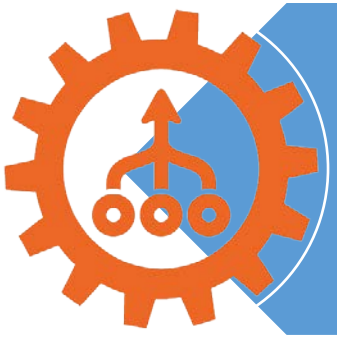
Open-ended, technical, multidisciplinary and multistakeholder group
(116 registered – over 39 countries)

All the regions represented with representatives from :

- Research Funding organizations
- Nonprofit
- Universities and Research institutes, from PhD candidates to research directors,
- National Academies of Science
- Ministries of science and higher education
- Associations of Universities
- Librarians and library associations
- Citizen science and indigenous knowledge experts
- Research Funders
- OA Publishers and publishers Associations
- Permanent Delegations to UNESCO and National Commissions for UNESCO
- UNESCO CAT 2 Center and UNESCO Chairs
- Other regional and international Institutions

Open Science Policies Working Group – What are the objectives?

Proposals for regional and thematic open science funding mechanisms and



Recommendations for revision of the current research careers assessments and evaluation criteria

June/July (inputs) → September (first draft) → December (final)

Key questions for this meeting

- Existing open science funding mechanisms –what works and what does not work?
- Proposals for regional open science funding mechanisms – who are the key players?
- Proposals for thematic open science funding mechanisms
- Existing initiatives for reviewing research assessment and career evaluation systems in line with open science principles
- Recommendations for revision of the current research careers assessments and evaluation criteria
- ??

First meeting of the
UNESCO Working Group on Open Science Policies and Policy Instruments

Next Steps

Next steps

- Existing open science funding mechanisms –what works and what does not work?
- Proposals for regional open science funding mechanisms – who are the key players?
- Proposals for thematic open science funding mechanisms
- Existing initiatives for reviewing research assessment and career evaluation systems in line with open science principles
- Recommendations for revision of the current research careers assessments and evaluation criteria

Share your inputs, proposals and recommendations with us at openscience@unesco.org by 15 July 2022

Next meeting 20 September 2022

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

Implementation of the UNESCO Recommendation on Open Science

News ›

UNESCO launches a global call for best practices in open science

Further to the adoption of the UNESCO Recommendation on Open Science in November 2021, UNESCO is launching a Global Call for Best Practices in Open Science.

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March 31, 2022 - Last update: April 21, 2022

The resulting compendium of best practices will be a useful tool to better understand the current landscape of open science, share lessons learned, identify and connect open science actors around the world, and further develop innovative solutions for open science in a collaborative, inclusive and transparent manner.

Global call for best practices:

https://www.unesco.org/en/articles/unesco-launches-global-call-best-practices-open-science

Implementation of the UNESCO Recommendation on Open Science

Call for papers for the special edition of the Journal of Science Policy & Governance on Open science policies in collaboration with the Major Group for Children and Youth and the Global Young Academy:

https://www.unesco.org/en/articles/call-papers-open-science-policies-accelerator-achieving-sustainable-development-goals

Keep in touch

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

Contact: openscience@unesco.org