UNESCO Recommendation on Open Science

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The Power of Science

Science is the engine of prosperity. If you look around at the wealth of civilization today, it's the wealth that comes from science.

Michio Kaku

We need Science, more and better science, not for its technology, not for leisure, not even for health or longevity, but for the hope of wisdom which our kind of culture must acquire for its survival.

Lewis Thomas

While education remains the most important means of fighting inequalities at the individual level, in the 21st century, science is the best way to fight inequalities between countries and regions.

Antonio Novoa

Science at the core of SDGs

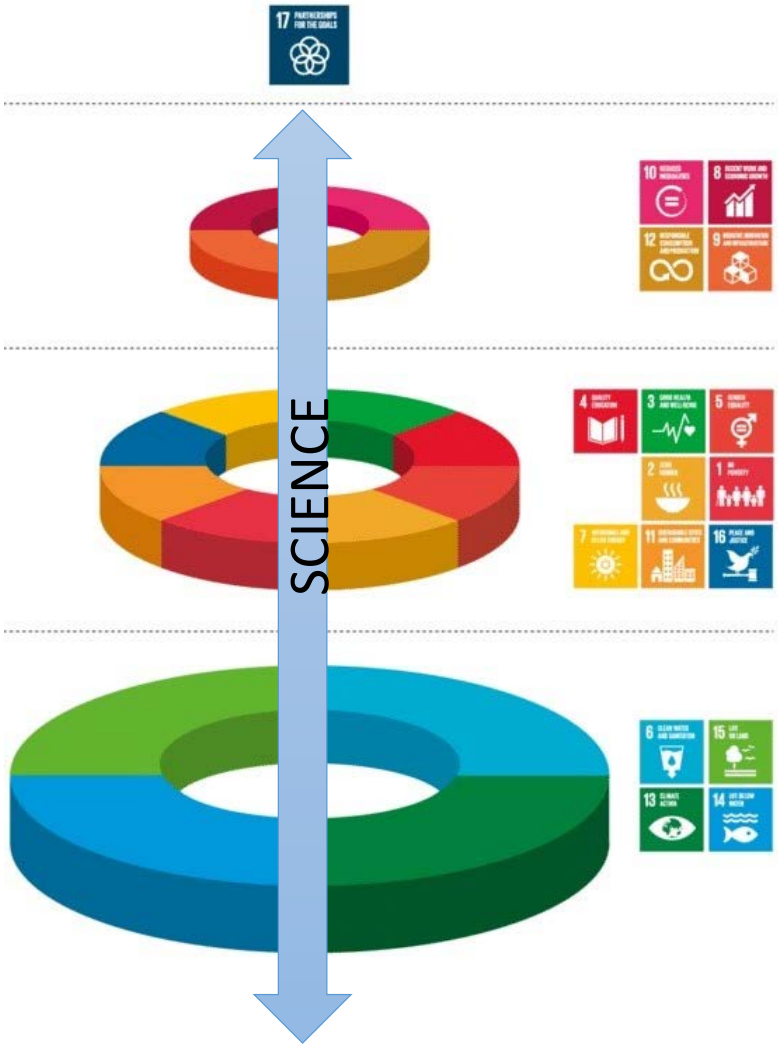
Science, technology and innovation - critical for

ECONOMIC

SOCIAL

ENVIRONMENTAL

SUSTAINABILITY



Adapted from Azote Images for Stockholm Resilience Centre

Science for the People, Planet & Prosperity

The achievement of SDGs relays on sustainable and innovative solutions that require an **efficient**, **transparent and vibrant scientific community** not only stemming from scientists, but from the whole of **society**.

Need to **democratize science** and the entire scientific process and make it more **efficient, equitable, transparent and inclusive.**

Need for Open Science

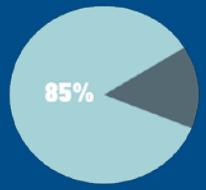
Lessons learned from COVID 19

- Importance of timely and free access to scientific data, publications, information
- Importance of scientific collaborations and sharing of information at all levels
- Importance of science-policy-society dialogue

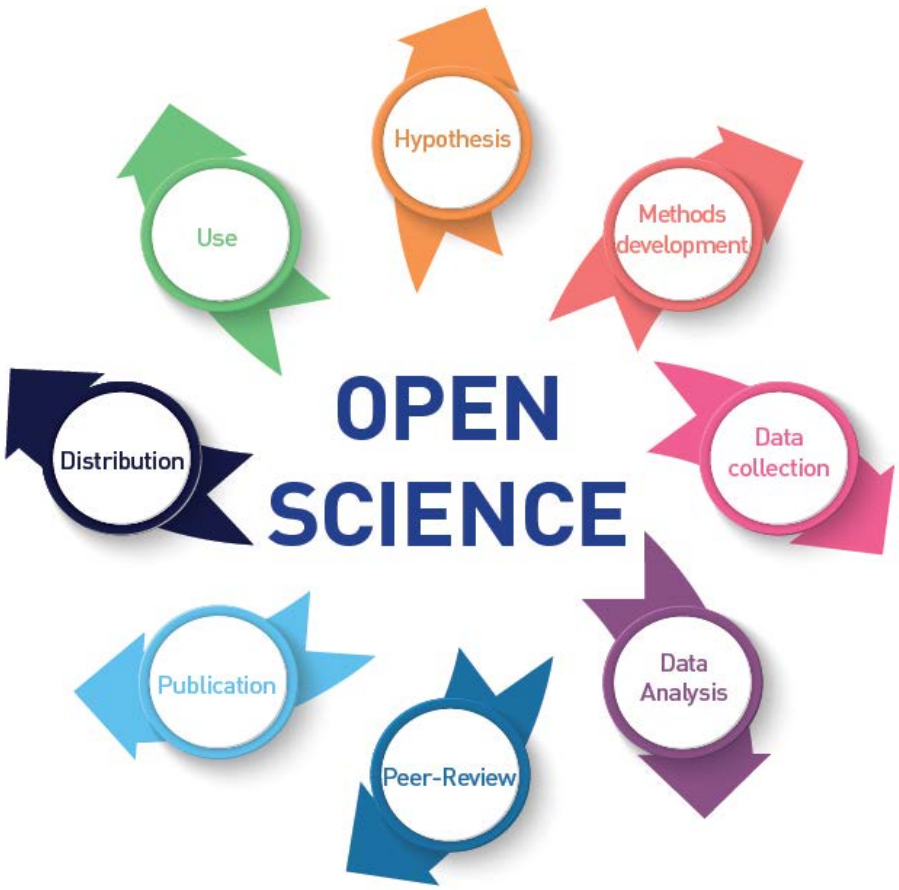
Need for Open Science

70%
of all scientific publications are locked behind paywalls.

85%
of covid-19 related publications are open access.



The Potential of Open Science



Open Science has the potential of increasing the quality of science and making the entire scientific process and its outputs more accessible transparent, collaborative and inclusive.

Open Science can be a true game changer in **bridging the science, technology and innovation gaps** between and within countries and fulfilling the **human right to science**.

Open Science is increasingly recognized as a critical **SDGs accelerator.**

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Need for an international policy and action framework

Need for a common definition of open science, shared set of values and principles

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

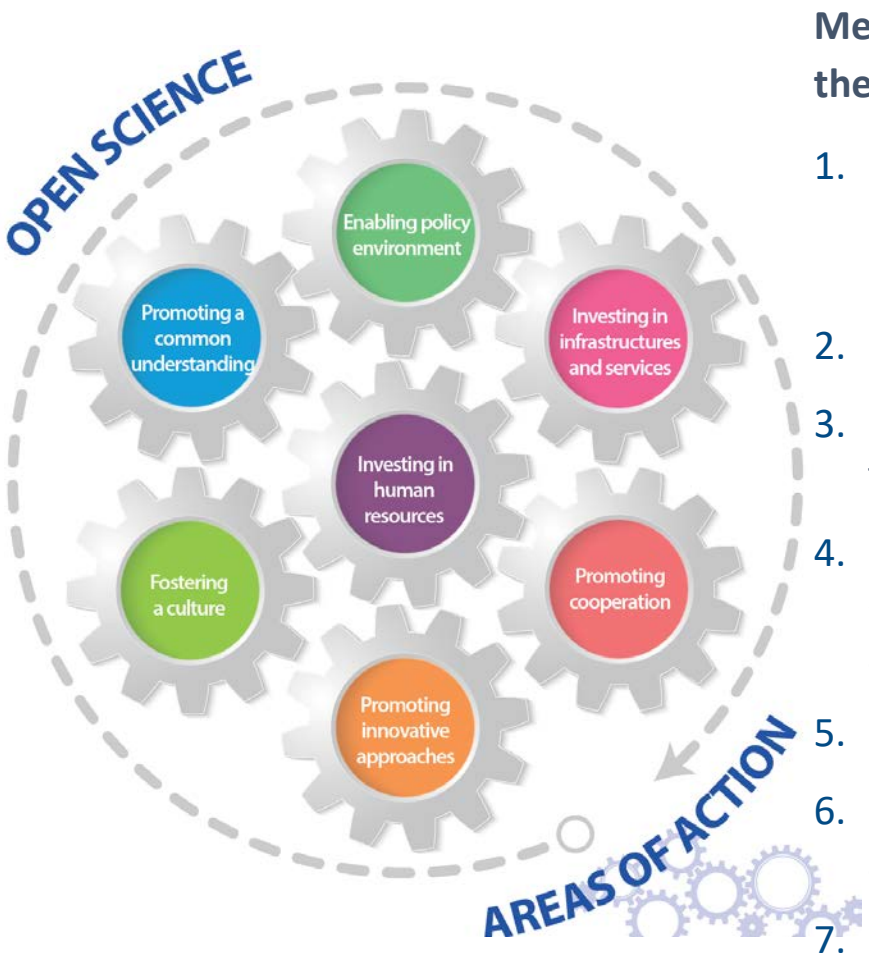
- It is the first **international normative instrument** on Open Science;
- it contains the first **internationally agreed definition** of Open Science;
- it spells out the consensus **core values and guiding principles** of Open Science;
- it addresses **multiple actors and stakeholders** of Open Science;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

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.

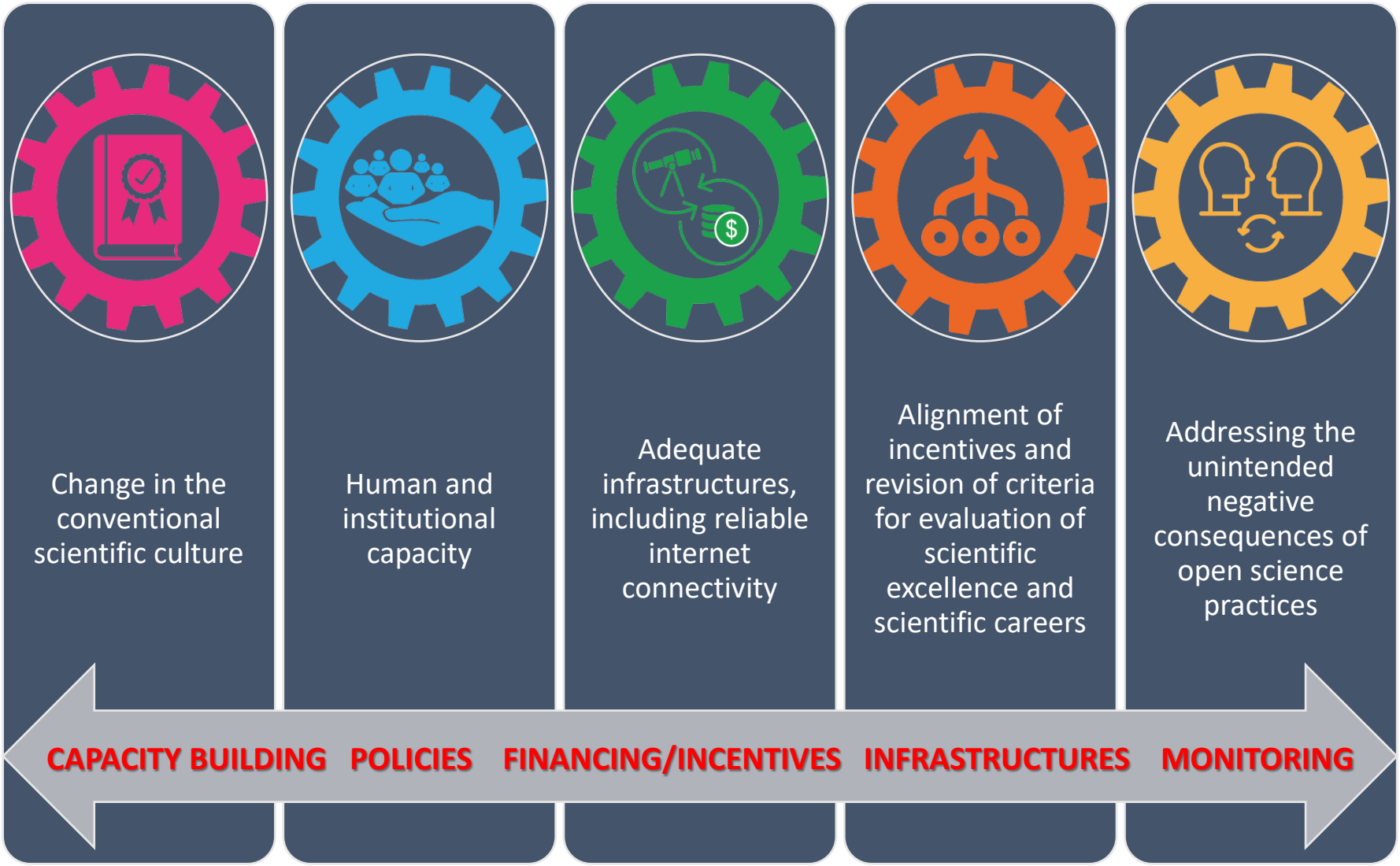
Key Objectives – Key Areas of Action



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



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

Join the Global Open Science Movement

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

Contact: openscience@unesco.org

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Thank you

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