



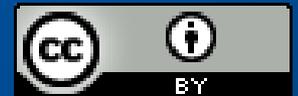
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The role of repositories in the context of the global transformation towards Open Science

WDS Repository Sustainability Summit
20 July 2023



Dr Ana Persic, UNESCO



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Why Open Science?



Increased access to knowledge and improved quality and efficiency of the scientific process.

Acceleration of the achievements of the UN SDGs.

Potential to fulfill the human right to science.

Why an International Policy Framework on Open Science?



Enabling Open Science to **democratize the entire scientific process**, increase the access to scientific information, provide innovative solutions with benefits for all , bridge STI gaps and fulfill the human right to science.

UNESCO Recommendation on Open Science

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 Member States adopted the first international standard-setting instrument on open science in the form of a

UNESCO Recommendation on Open Science.

Open Science: Definition

Open science increases scientific collaborations and sharing of information for the benefits of science and society



**OPEN
SCIENCE**

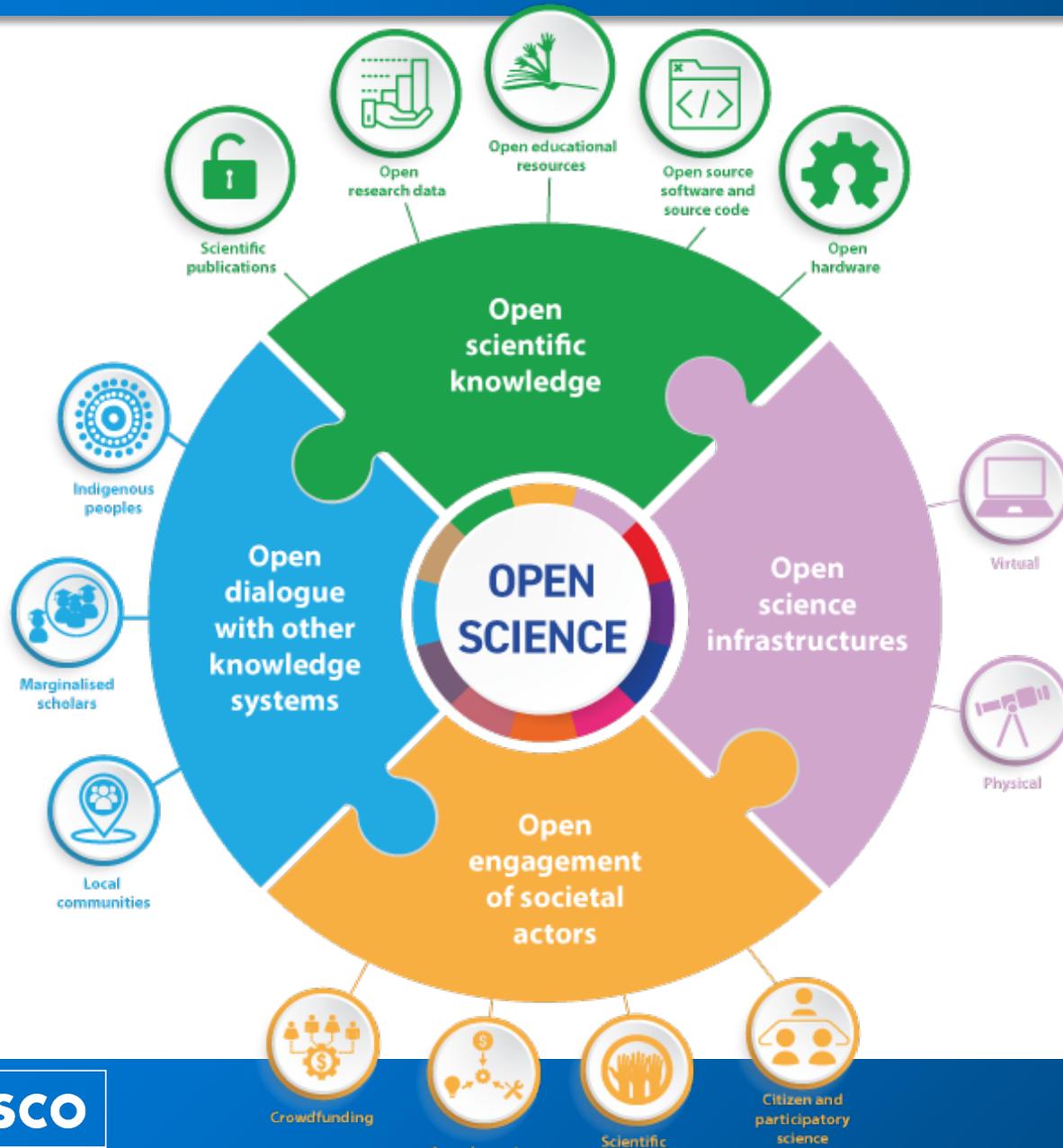


makes multilingual scientific knowledge openly available, accessible and reusable for everyone

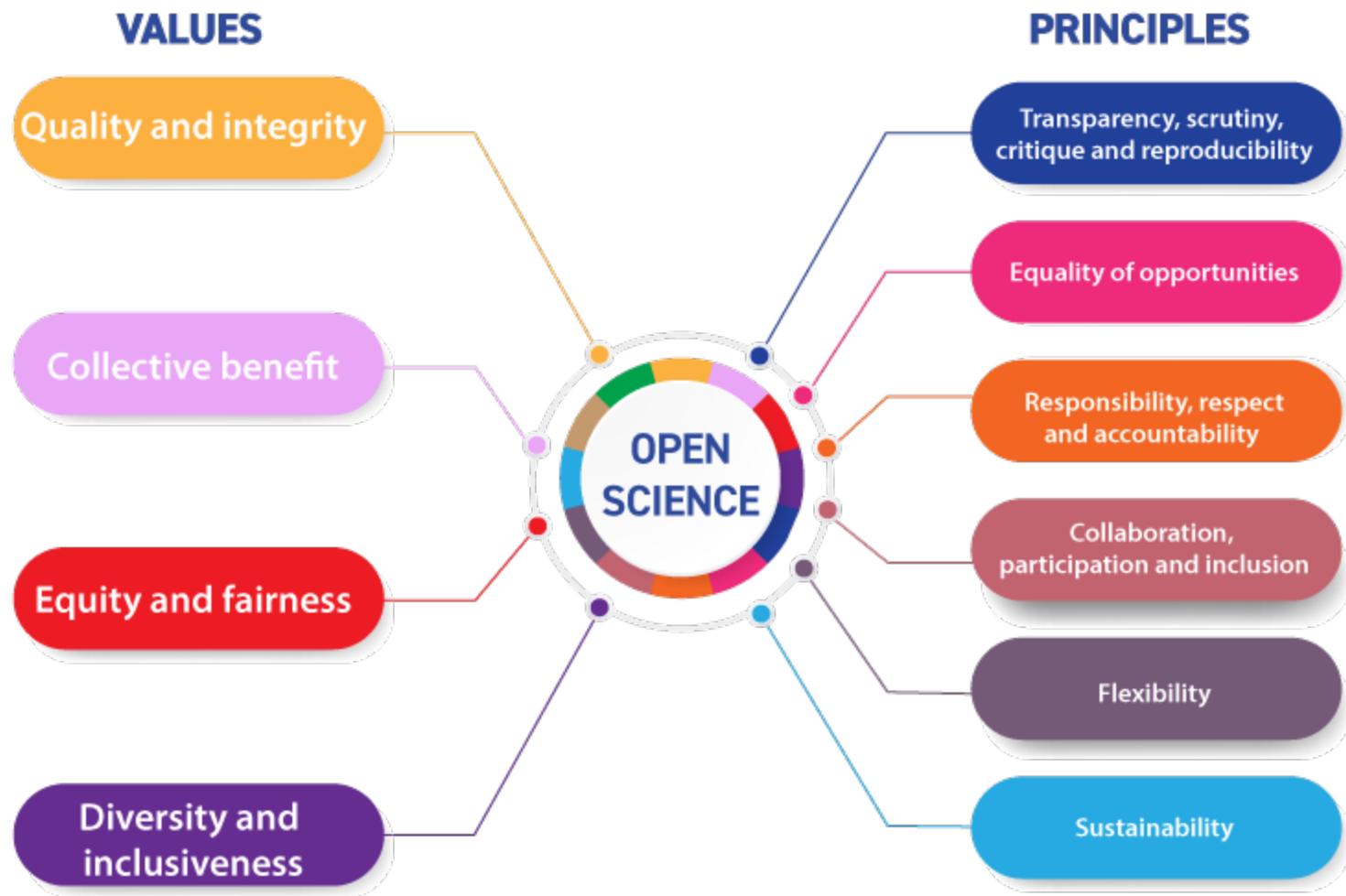


opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

Open Science: Key elements



Open Science: Values and Principles



Open Science: Common Action Plan

OPEN SCIENCE

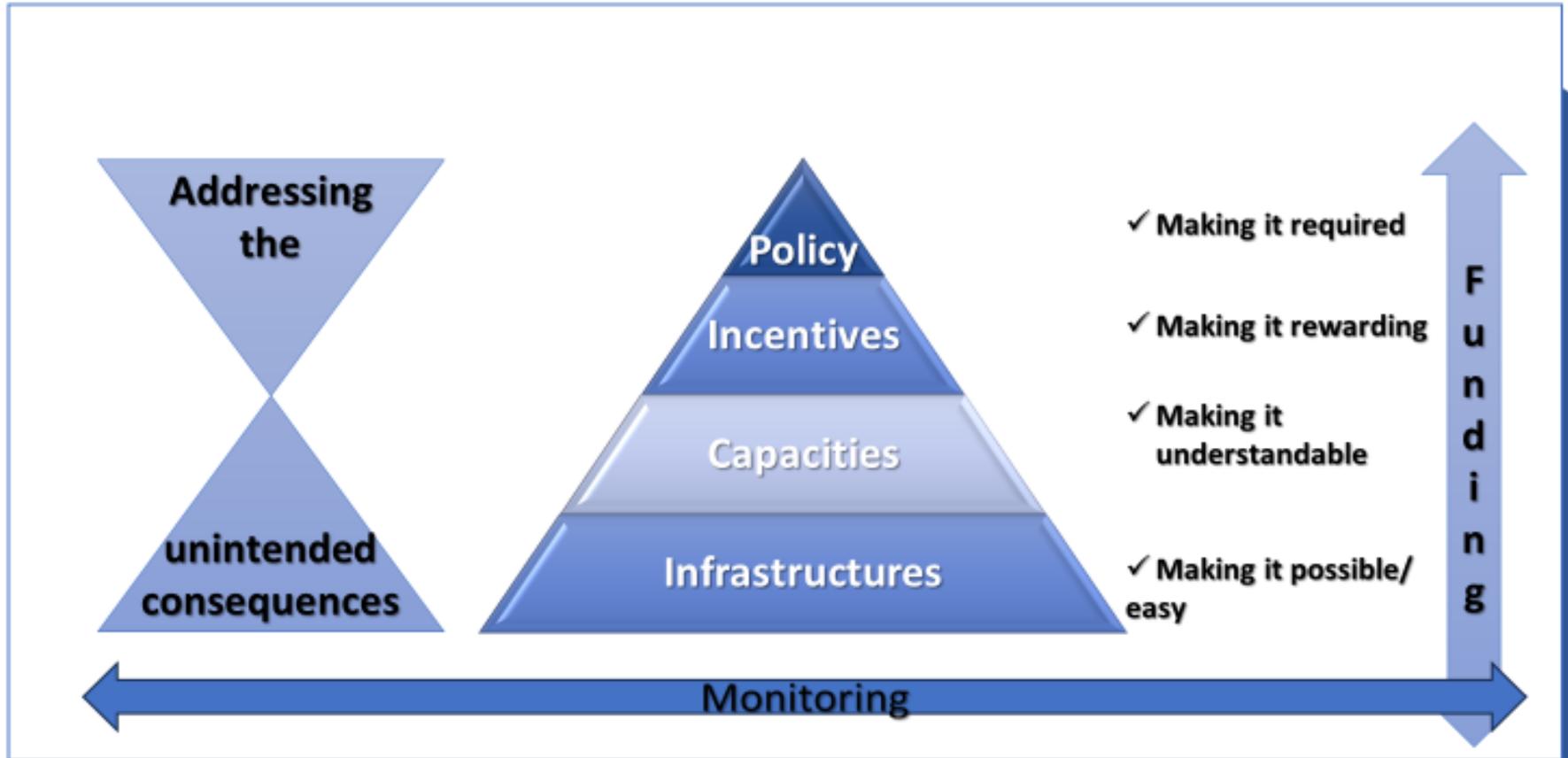


AREAS OF ACTION



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Cultural Change towards Open Science



Based on Centre for Open Science's strategy for cultural change



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Open Science Toolkit



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UNESCO OPEN SCIENCE · TOOLKIT



GUIDES

- Building capacity for open science
- Developing policies for open science
- Funding open science
- **Bolstering open science infrastructures for all**

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

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

FACTSHEETS

- Understanding open science
- Identifying predatory academic journals and conferences

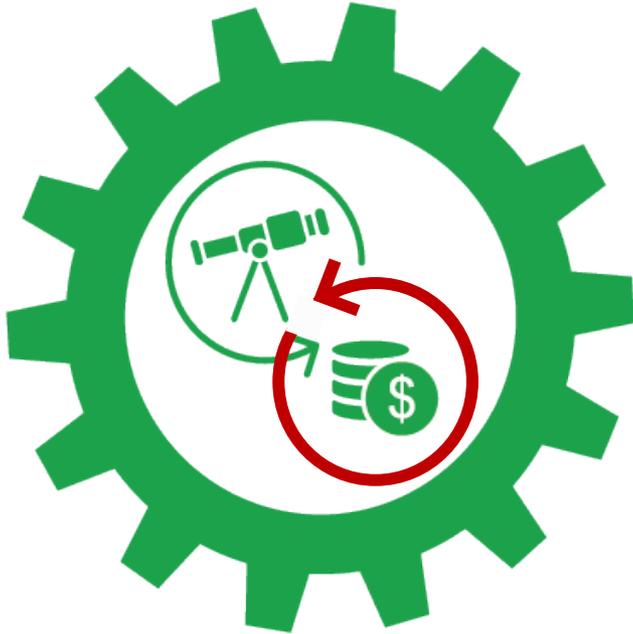
OPEN INDEXES OF OPEN SCIENCE RESOURCES

- UNESCO Open Science **Capacity Building index**
- UNESCO Index of Open Science **Knowledge Sharing Platforms**
- UNESCO Global Observatory of Science, Technology and Innovation **Policy Instruments (GO-SPIN)**



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Investing in open science infrastructures



In the Recommendation, Member States are encouraged to promote non-commercial open science infrastructures and to ensure adequate investment in:

Core infrastructures

- *Reliable Internet*
- *Federated IT infrastructure*
- *Community managed infrastructures, protocols and standards*

Open approaches

- *Non-commercial*
- *Community based*
- *International collaboration*

Innovation

- *Automated processes for finding and using information*
- *Infrastructure for non-digital materials (such as chemical reagents)*
- *Exchange and co-creation of knowledge between scientists and society*

Key factors to consider when developing, funding and using open science infrastructures



Sustainability

Equity

Transparency of costs and benefits

- *What resources are needed*
- *Where funding comes and goes*
- *Public value*

Interoperability to enhance re-use

- *Diverse, multilingual*
- *Standardized, identified, re-usable*

Cooperative (co)creation

- *Community based*
- *International collaboration*
- *Hybrid (trans)disciplinary collaborative spaces*

Shared attention

- *Awareness of existing infrastructures*

Harmonization

- *Enabling environment with community standards*
- *Monitoring and evaluation, under public oversight*

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



Thank you



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