Open Science Monitoring Initiative

20th Munin Conference, 2025

Laetitia Bracco. Deputy Head of the Library Research Support Services at the Université de Lorraine, OSMI co-coordinator

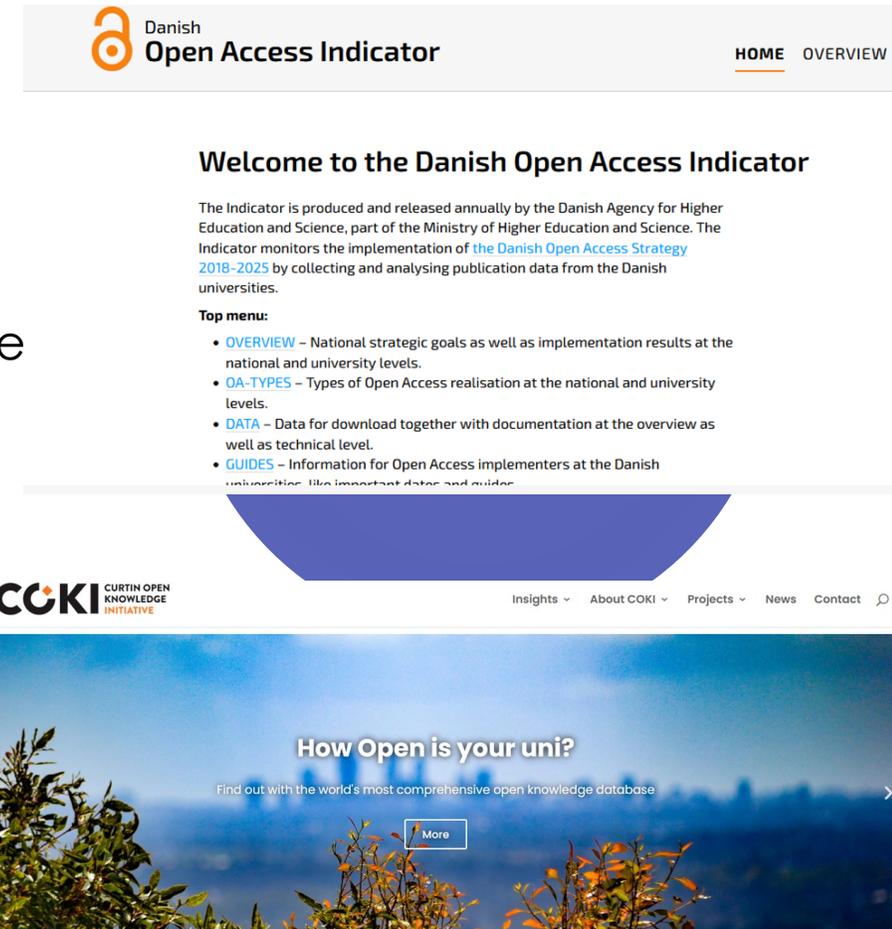Vanessa Proudman. Director, SPARC Europe, OSMI co-coordinator

Context

May 2023 G7 Communique (excerpt)

G7 cooperation on open science
is set to continue,
in particular to encourage
a framework for monitoring
the progress and obstacles of open science.

A development of initiatives

- **Some national or institutional monitors:**
  - Danish Open Access Indicator https://oaindikator.dk/en/
  - French Open Science Monitor https://frenchopensciencemonitor.esr.gouv.fr/
  - Charité Universitaetsmedizin Berlin Dashboard on Responsible Research https://quest-dashboard.charite.de/
- **International initiatives:**
  - Unesco Open Science Monitoring Working Group
  - Curtin University's Open Knowledge Initiative (COKI) https://openknowledge.community/
- And many more…

Some guidelines and frameworks

- 2020: Principles of Open Scholarly Infrastructure https://doi.org/10.24343/C34W2H

- 2021: UNESCO Recommendation on Open Science https://www.unesco.org/en/open-science/about

- 2023: UNESCO Open Science Outlook https://unesdoc.unesco.org/ark:/48223/pf0000387324

- 2024: PathOS Open Science Indicator Handbook https://handbook.pathos-project.eu/

- 2024: Declaration on Open Research Information (related but ≠ from Open Science Monitoring) https://barcelona-declaration.org/

UNESCO Recommendation on Open Science

Yet no common understanding on Open Science Monitoring

We need a global approach to monitor open science progress for

- publications
- research data
- open source software
- clinical trials
- open science impacts
- open science costs
- open science infrastructures
- citizen science, and engagement with societal actors
- dialogue with other knowledge systems, etc.

20th Munin Conference, 18 Nov 2025

Creating the spark for international collaboration

- **Workshop** organised by the partners of the French Open Science Monitor at the Unesco headquarters on December 19th, 2023

- Objective: **gathering international open science monitoring stakeholders and experts** and **impulsing the creation of an international community on the topic**

- Fifty international experts from various institutions: CERN, NASA, CWTS, OurResearch, Crossref, DataCite, SPARC Europe, Redalyc, the OECD, COKI, the Max Plank Digital Library, PLOS, the Technical University of Denmark

Building an Open Science Monitoring Framework with open technologies

19th of December
UNESCO headquarters

Slides available online

A starting point for OSMI

► Five breakout sessions:
  ► *Principles (in two breakout sessions)*: internationally reviewed and released during the summer 2025
  ► *Community of practice*: to build the community
  ► *Technical specifications (in two breakout sessions, on research data and software)*: a need for technical specifications to support the Principles

► Discussions with international experts
► Around 50 people
► 16 countries
► Presentations and outputs available here: https://zenodo.org/records/10600864
► A starting point for the OSMI working groups

The Principles of Open Science Monitoring

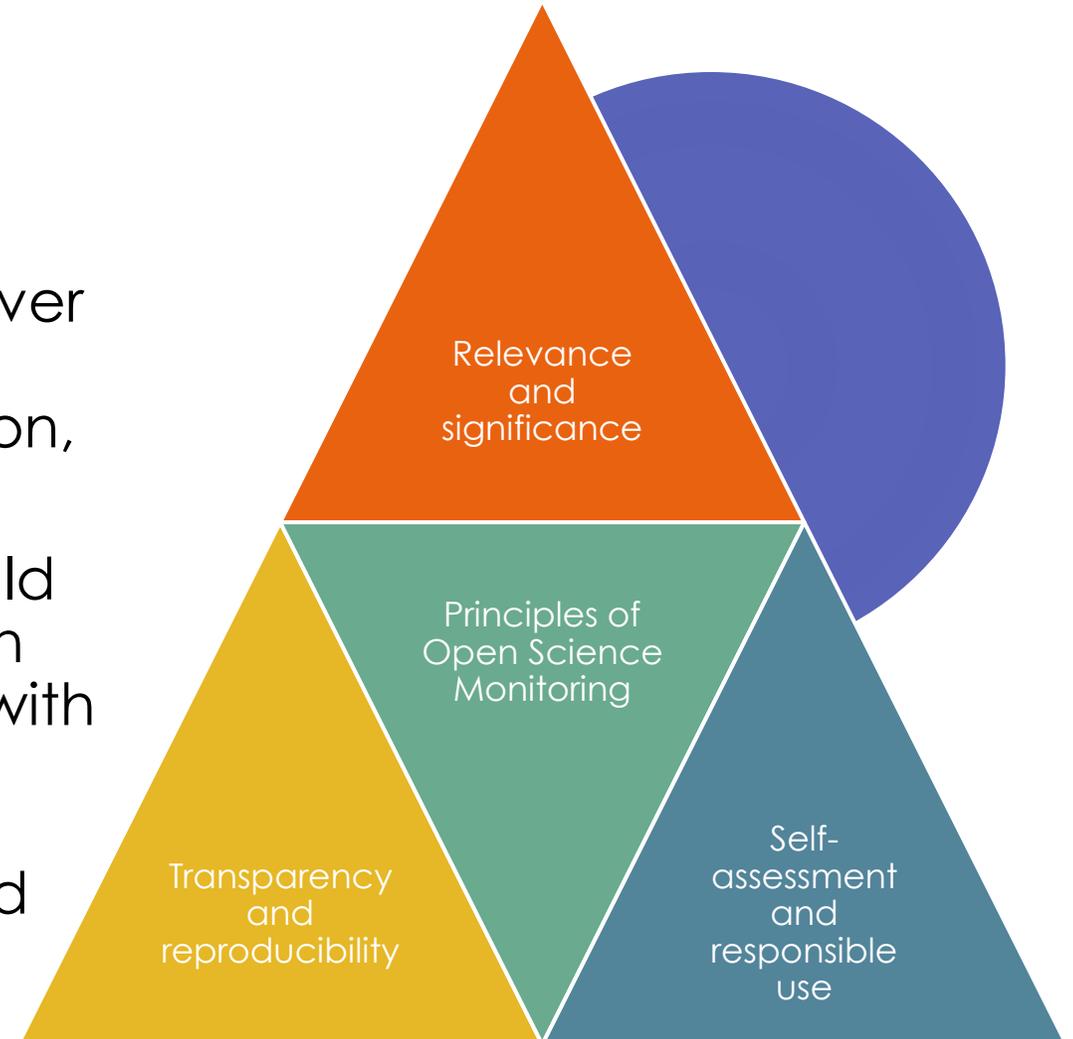https://open-science-monitoring.org/principles/

OSMI's high-level goals

1. To promote the worldwide adoption of the Principles of Open Science Monitoring;

2. To provide recommendations for technical specifications for their implementation;

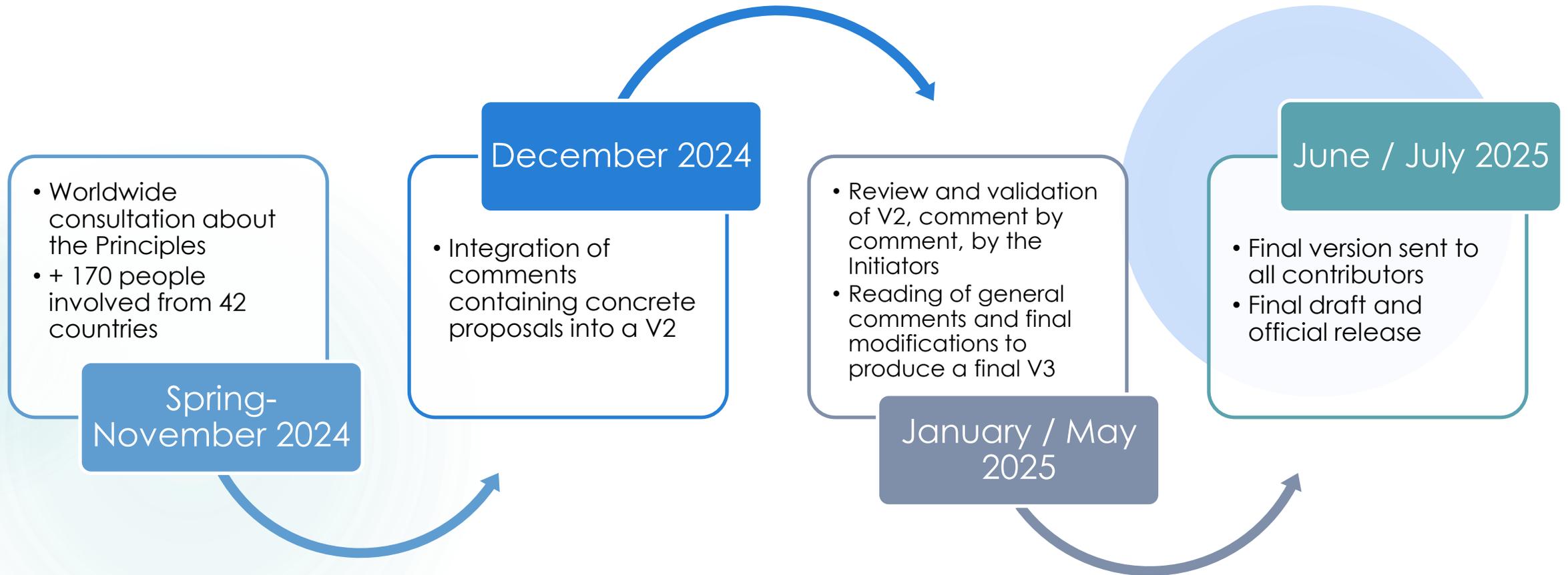3. To support stakeholders on various levels in monitoring Open Science practices.

High-level principles

▶ All open science monitoring initiatives should be well-defined, relevant, and adaptable to diverse research contexts

▶ Open science monitoring should, wherever possible, prioritize the use of open, transparent, and reproducible information, including metadata

▶ Open science monitoring initiatives should aim for continuous improvement through regular self-assessments and alignment with these Principles of Open Science Monitoring. Importantly, open science monitoring should be used to understand and incentivise open science practices

Building international Principles: A journey

Spring-November 2024
- Worldwide consultation about the Principles
- + 170 people involved from 42 countries

December 2024
- Integration of comments containing concrete proposals into a V2

January / May 2025
- Review and validation of V2, comment by comment, by the Initiators
- Reading of general comments and final modifications to produce a final V3

June / July 2025
- Final version sent to all contributors
- Final draft and official release

Open Science Monitoring Initiative
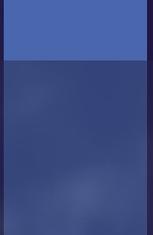
Governance

What is the status of OSMI?

► The UNESCO WG for the monitoring of the implementation of the UNESCO Recommendation on Open Science is still active

► OSMI is not a UNESCO entity; UNESCO is a partner

► OSMI is a multi-stakeholder group; it currently has no funding except the initial funds provided by the French Ministry of Higher Education and Research and support by the Université de Lorraine and SPARC Europe

► In-kind support from UNESCO, PLOS, Charité

New OSMI governance
Effective from 1 Jan 2026

► A Steering Board, includes OSMI initiators, WG co-chairs, and 5 international experts

► Working groups

► A coordination committee

► Applications for experts under review

Implementing the Principles

The working groups

WG1. Scoping the needs of open science monitoring

► Map the key stakeholders and beneficiaries to better understand who is impacted by OS and how, and who benefits from it at the international, national, and local levels

► Explore the scope of OS monitoring and define what should be monitored and why

► Identify areas that require quantitative and/or qualitative methods to serve the needs of OS monitoring effectively

Co-chairs

Julián D. Cortés – *Principal professor – School of Management and Business, Universidad del Rosario, Colombia*

Nabila Salisu – *Community Lead Global Partnership Coordinator – Open Science Community Nigeria, Nigeria*

WG2. Understanding the open science monitoring landscape

▶ Ensure OSMI's better alignment with other initiatives in order to promote synergies and avoid the duplication of efforts

▶ Scan the global landscape for OS monitoring projects, services, methods and tools

Co-chairs

Lamis Yahia Mohamed Elkheir – *Co-Director and Training Lead, African Reproducibility Network (AREN)*
Lecturer, Faculty of Pharmacy, University of Khartoum, Sudan

Tereza Szybisty – *Research Project Manager & OS/RDM Training Specialist – OpenAIRE, Czechia*

WG3. Open science monitoring with scholarly content providers

▶ Identifying ways in which scholarly content (as defined under "scientific knowledge" in the 2021 UNESCO Recommendation on Open Science) and its providers can support the creation of solutions that meet diverse open science monitoring needs

Co-chairs

Lebogang Gopolang – Research Librarian – Botswana University of Agriculture and Natural Resources, Botswana

Iratxe Puebla – Director, Make Data Count – DataCite, United Kingdom

WG4. Shared resources and infrastructure to analyze scholarly outputs

► Foster the use of state-of-the-art open source tools for extracting information from full text

► Encourage the sharing of the extracted metadata within a framework consistent with full-text access licenses

► Meet the considerable computing and storage requirements via resource pooling

Co-chairs

Pragya Chaube –*Assistant Professor, UPES, Co-founder, Open Science South Asia Network (OSSAN), Co-chair of CODATA Connect, India*

Cristina Huidiu – *Product Owner Digital Library Services – Wageningen University and Research, The Netherlands*

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Read the Principles of Open Science Monitoring

Open Science Monitoring Initiative,
Principles of Open Science Monitoring,
Paris, 2025. DOI: 10.52949/4

https://open-science-monitoring.org/principles/

Next steps

▶ Translation of the Principles: English, Finnish, French, German and Spanish

▶ Starting to review how the Principles are being applied: Action plans

▶ Instigation of the new governance structure

▶ Adoption of the Principles of Open Science Monitoring by UNESCO Member States, 2026

▶ Creation of a self-assessment grid based on the Principles

Join the mailing list on the OSMI website homepage:

https://open-science-monitoring.org/

or follow us on social media (LinkedIn / Mastodon)

Thank you!