

Open Science 101: First Steps to Implementing an Open Science Policy

29 May 2024

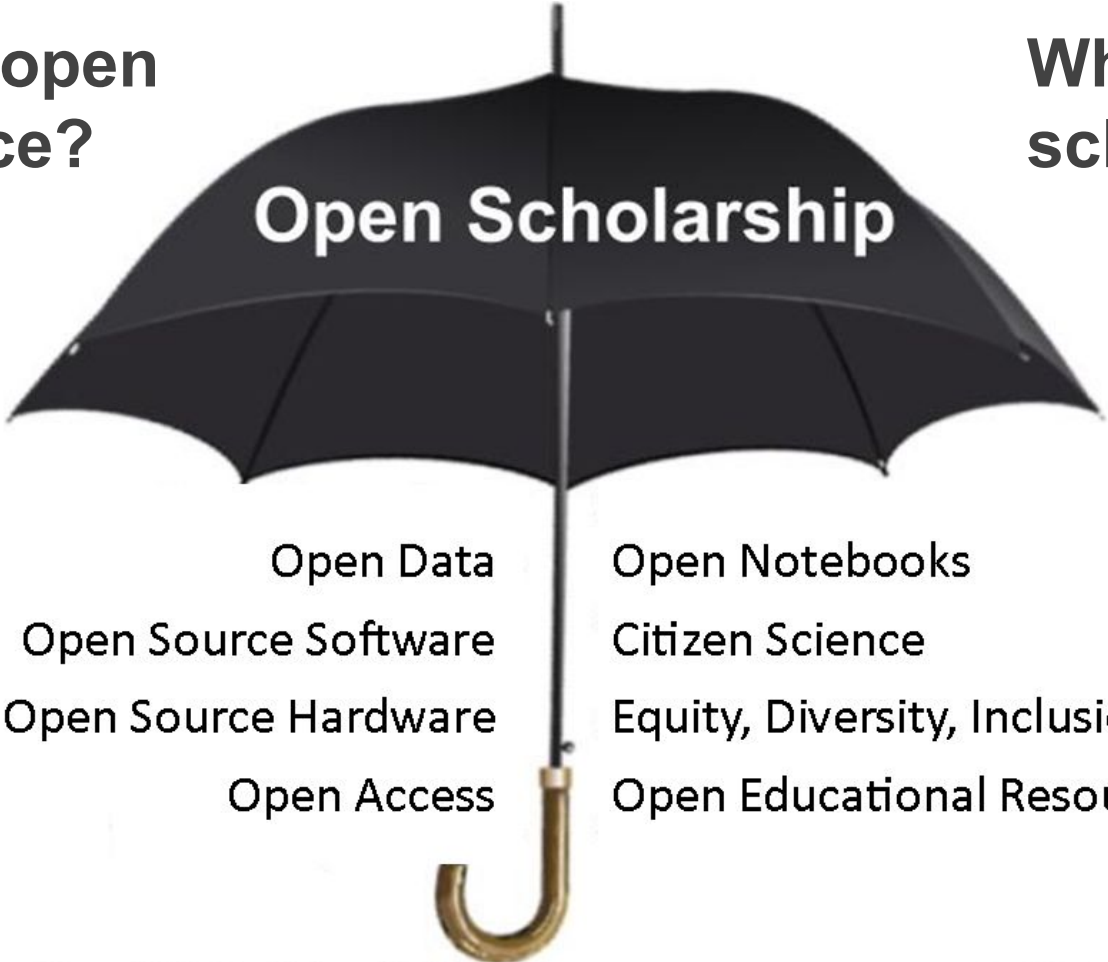


Open Research Community Accelerator (ORCA)
in collaboration with
Health Research Alliance (HRA)



**What is open
science?**

**What is open
scholarship?**



Open Scholarship

Open Data

Open Source Software

Open Source Hardware

Open Access

Open Notebooks

Citizen Science

Equity, Diversity, Inclusion

Open Educational Resources



Open Knowledge
Foundation

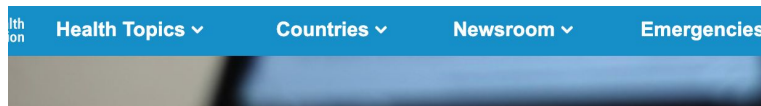


Open Definition

DEFINING OPEN IN OPEN DATA, OPEN CONTENT AND OPEN KNOWLEDGE

“Open means **anyone** can **freely access, use, modify, and share** for **any purpose** (subject, at most, to requirements that preserve provenance and openness).”

International bodies and open science



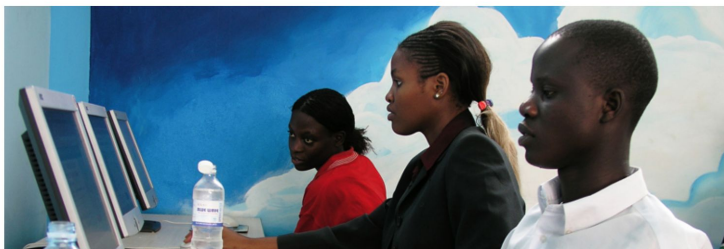
New WHO policy requires sharing of all research data

16 September 2022 | Departmental news | Geneva | Reading time: Less than a minute (244 words)

Marking ten years of open access at the World Bank Group

ELISA LIBERATORI PRATI | SEPTEMBER 30, 2022

This page in: [English](#) | [中文](#)



Government initiatives in open scholarship



Research

Chief Scientist plan for free research access for all



BOLETÍN OFICIAL
DE LAS CORTES GENERALES

CONGRESO DE LOS DIPUTADOS

XIV LEGISLATURA

Serie A:
PROYECTOS DE LEY

15 de junio de 2022	Núm. 92-4	Pág. 1
---------------------	-----------	--------

INFORME DE LA PONENCIA

121/000092 Proyecto de Ley por la que se modifica la Ley 14/2011, de 1 de junio, de la Ciencia, la Tecnología y la Innovación.

National Plan for Open Science published by the MUR



nature

Explore content ▾ About the journal ▾ Publish with us ▾ Subscribe

[nature](#) > [correspondence](#) > article

CORRESPONDENCE | 08 November 2022

Ukraine approves National Plan for Open Science



An Roinn Breisoidiachais agus Ardoideachais,
Taighde, Nuálaíochta agus Eolaíochta
Department of Further and Higher Education,
Research, Innovation and Science

National Action Plan for Open Research 2022-2030



Ou
Ouvrir
la science! OPEN SCIENCE OUR A

Understanding

Second French Plan for Open Science



Open Science 2030 in the Netherlands

U.S. federal initiatives in open scholarship

OSTP Issues Guidance to Make Federally Funded Research Freely Available Without Delay

FACT SHEET: Biden-Harris Administration Announces New Actions to Advance Open and Equitable Research



About Science.gov ▾ [Open Science & Public Access](#) ▾ Scientific In

Search for authoritative federal science information



Advanced Search

Open Science & Public Access

The U.S. Government defines open science as the principle and practice of making research products and processes available to all, while respecting diverse cultures, maintaining security and privacy, and fostering collaborations, reproducibility, and equity. Within open science is a concept known as "public access," which refers to the free availability of Federally funded scholarly materials, including data and publications, to the American public and the world. Federal agencies have long coordinated on activities and policies related to open science and public access to support members of the federally supported research community in maximizing appropriate access to the products of their work and ensuring that all Americans can benefit from discovery and innovation.

Open Science Announcements



View federal agency open science initiatives, engagements, and policies in response to the White House Office of Science and Technology Policy (OSTP) declaration of 2023 as a Year of Open Science

[READ MORE](#)

Public Access Plans & Guidance



See agency plans to increase public access to federally funded research results

[READ MORE](#)

nature

Explore content ▾ About the journal ▾ Publish with us ▾ Subscribe

[nature](#) > [world view](#) > article

WORLD VIEW | 11 January 2023 | Correction [13 January 2023](#)

Why NASA and federal agencies are declaring this the Year of Open Science



Here's how NASA is incentivizing open science, and how you can too.

THE NIH DIRECTOR

The NIH Director

January 25, 2023

[Photo Gallery](#)

[Congressional Testimonies](#)

[Advisory Groups](#)

NIH implements Data Management and Sharing Policy

VALUES

Quality and integrity

Collective benefit

Equity and fairness

Diversity and
inclusiveness



PRINCIPLES

Transparency, scrutiny,
critique and reproducibility

Equality of opportunities

Responsibility, respect
and accountability

Collaboration,
participation and inclusion

Flexibility

Sustainability

OPEN
SCIENCE

A central circular diagram with the text "OPEN SCIENCE" in the center. The circle is divided into 12 colored segments. Lines connect these segments to 12 rounded rectangular boxes arranged around the circle. The boxes are divided into two groups: "VALUES" on the left and "PRINCIPLES" on the right. The "VALUES" group includes: Quality and integrity (orange), Collective benefit (purple), Equity and fairness (red), and Diversity and inclusiveness (dark purple). The "PRINCIPLES" group includes: Transparency, scrutiny, critique and reproducibility (dark blue), Equality of opportunities (pink), Responsibility, respect and accountability (orange), Collaboration, participation and inclusion (maroon), Flexibility (dark grey), and Sustainability (light blue). The UNESCO logo is positioned at the top center of the diagram.

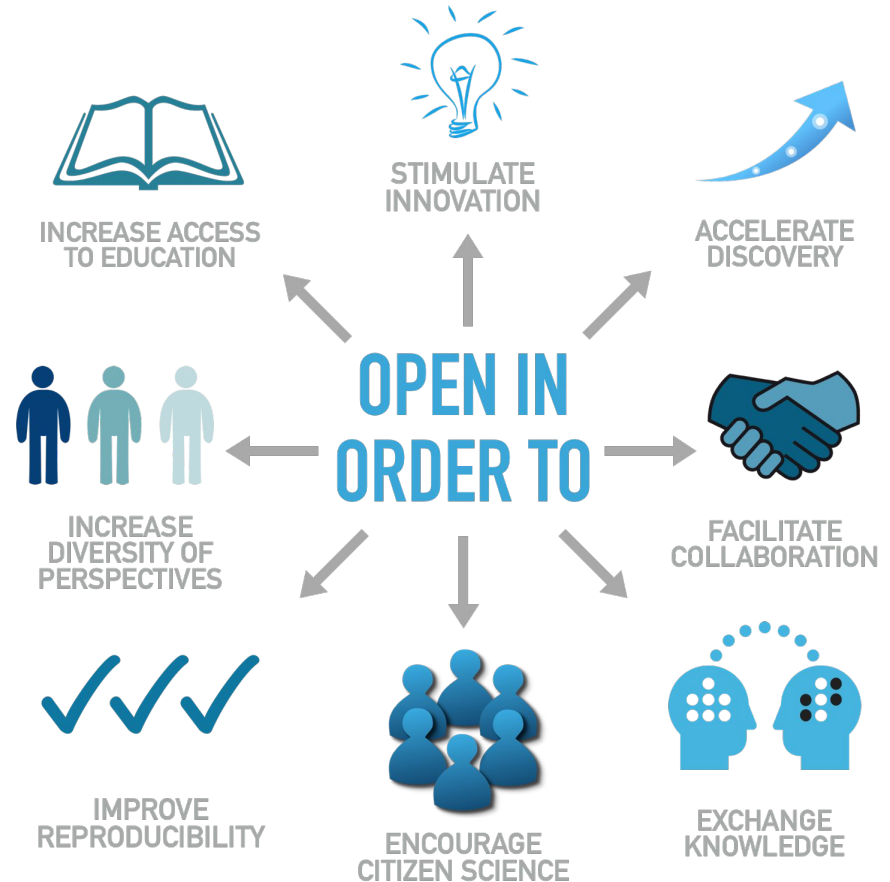
Why do you want to create a policy?

- What is your organizational mission or remit?
- What communities do you want to reach?
- What kinds of funding outcomes do you want to see?
- What desired outcomes are you not seeing?



What are the goals of your policy?

- Not open for open's sake
- Open as an enabling strategy
- Do you want to:
 - Increase access to info?
 - Facilitate collaboration?
 - Accelerate discovery?
 - Improve reproducibility?

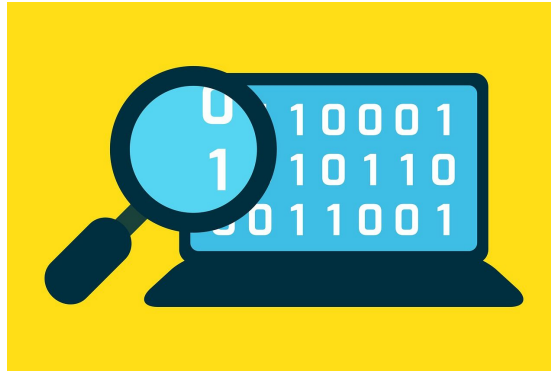


Policy goals shape language and emphasis

- Increase **access** to info → e.g., focus on **article** sharing
- Promote **collaboration** → e.g., focus on **data** sharing
- Accelerate **discovery** → e.g., focus on **early** sharing
- Improve **reproducibility** → e.g., focus on **methods** sharing

What practices should policy cover?

- What kind of projects does your organization fund?
- What kind of outputs do they produce? Or not produce?
- Which outputs may be most important or impactful?



Policy examples – access to information



“**Free and open access** to the outputs of research offers significant **social and economic benefits** and aids the development of new research.”

- Policy requires articles be made freely available within 12 months
- Can be accomplished through gold or green routes

Policy examples – collaboration & acceleration



“By supporting an OA policy, we facilitate the **rapid and free exchange of scientific ideas**, ensuring that the research we fund can be leveraged for **future discoveries**”

- Policy focuses on early sharing, requiring preprinting
- Resource sharing (data, code, & more) tied to timing of preprint deposit

Policy examples – transparency & reproducibility



“...we are committed to funding research that meets the most rigorous standards of **quality and transparency**. We believe in the value of **reproducibility**”

- Policy focuses on preregistration, analysis plans, sharing protocols
- If work not published in journal, requires posted write-up

Discussion and next steps

- Where are you in this policy process?
- What feels exciting? What feels daunting?
- Where do you need help?
- Would you like to work with us (for free!) to develop your policy?
 - In 1:1 sessions?
 - Group sessions?
 - Quick interest survey <https://bit.ly/3yqlqiK>





Thank You!

erin@orcaopen.org

www.orcaopen.org

greg@orcaopen.org