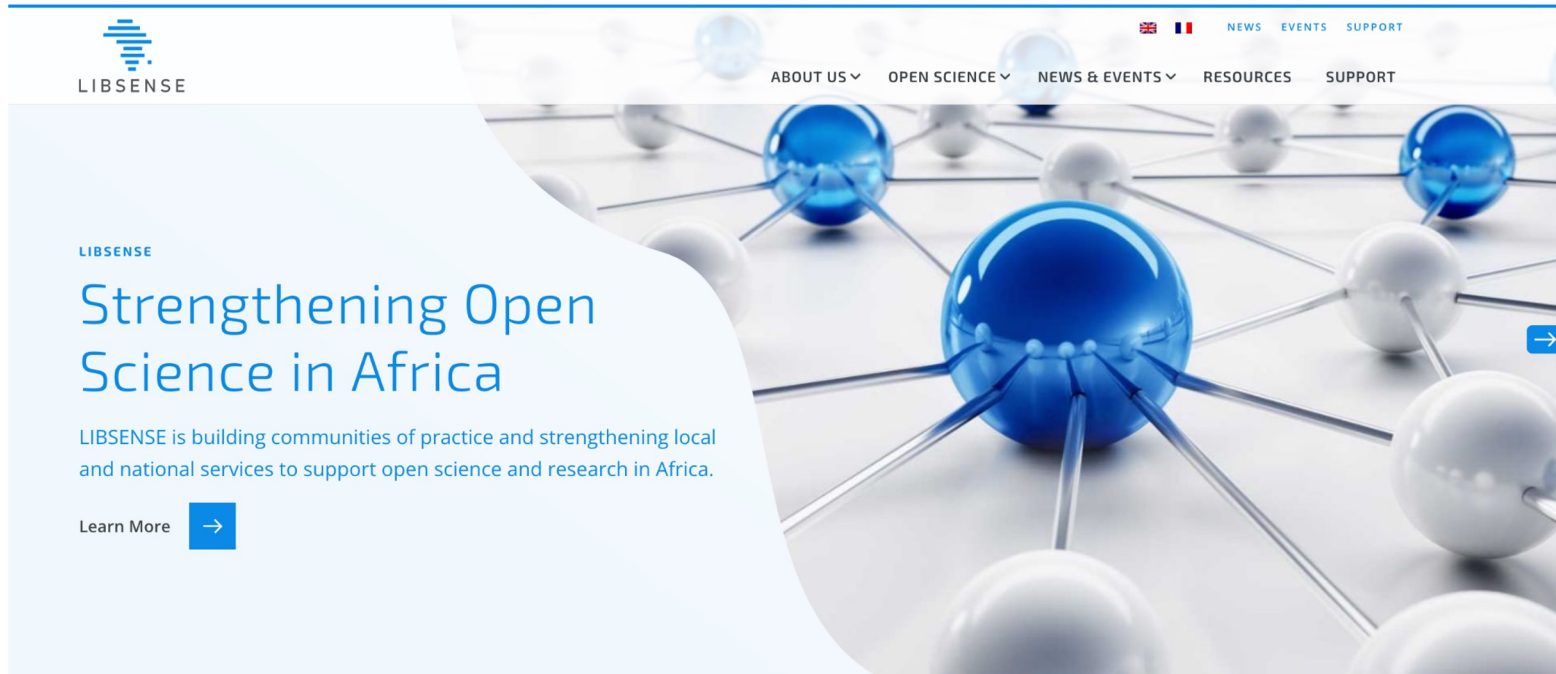


# Open Science - *Think Global: Act Local*



The image shows a screenshot of the LIBSENSE website. The background is a 3D rendering of a network of spheres connected by lines, with several spheres highlighted in blue. The website layout includes a top navigation bar with flags for the UK and France, and links for NEWS, EVENTS, and SUPPORT. Below this is a secondary navigation bar with dropdown menus for ABOUT US, OPEN SCIENCE, NEWS & EVENTS, RESOURCES, and SUPPORT. The main content area on the left has the LIBSENSE logo and the heading "Strengthening Open Science in Africa". Below the heading is a short paragraph about LIBSENSE's mission and a "Learn More" button with a right-pointing arrow.

LIBSENSE

LIBSENSE

## Strengthening Open Science in Africa

LIBSENSE is building communities of practice and strengthening local and national services to support open science and research in Africa.

Learn More [→](#)

**Kathleen Shearer**, Executive Director, Confederation of Open Access Repositories (COAR)

LIBSENSE Nigeria - March 4, 2024



**Knowledge is a  
public good.  
Let's treat it like  
one.**



COAR and its members are paving the way for a strong and resilient global repository network, for the benefit of all.

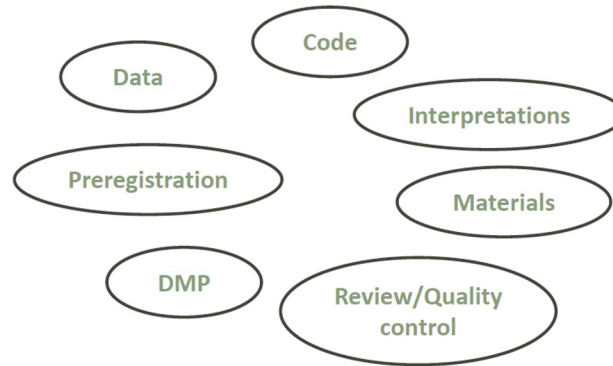


# What does the 21st century researcher want?

A system of interoperable digital research objects

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- Dynamic, version controlled
- Can be searched and text-mined
- Near-immediate publication
- Different models for post-publication review exist
- Contributorship in diverse roles
- Open to everyone



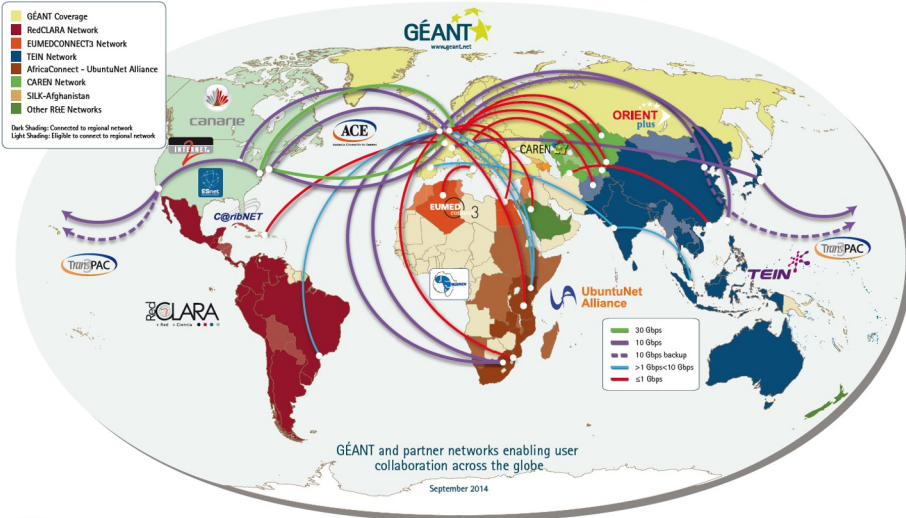
**(Bjoern Brembs, neurobiologist - COAR Annual Meeting 2022)**



# Research can be global and research can be local



## At the Heart of Global Research and Education Networking



# Fostering Bibliodiversity in Scholarly Communications

## A Call for Action!

April 15, 2020



Scholarly communication system must, not only be open, but **must accommodate the different workflows, languages, publication outputs, and research topics** that support the needs of different research communities and different regions.

### Authors

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### Reviewers

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Jean Claude Gu  don, University of Montreal

# Evolution of open science



**Pre- 2000**

**Print  
subscriptions**

**2000-2010**

**Transition  
To digital**

**2010-2025**

**“Flipping” the  
existing journals  
to OA**

**Post 2025**

**Real  
transformation?**





# UNESCO Recommendation on Open Science

The UNESCO Recommendation on Open Science is the first international standard setting instrument on open science.

The UNESCO Recommendation on Open Science provides an internationally agreed definition, as well as a set of shared values and guiding principles for open science. It also identifies a set of actions conducive to a fair and equitable operationalization of open science for all at the individual, institutional, national, regional and international levels.



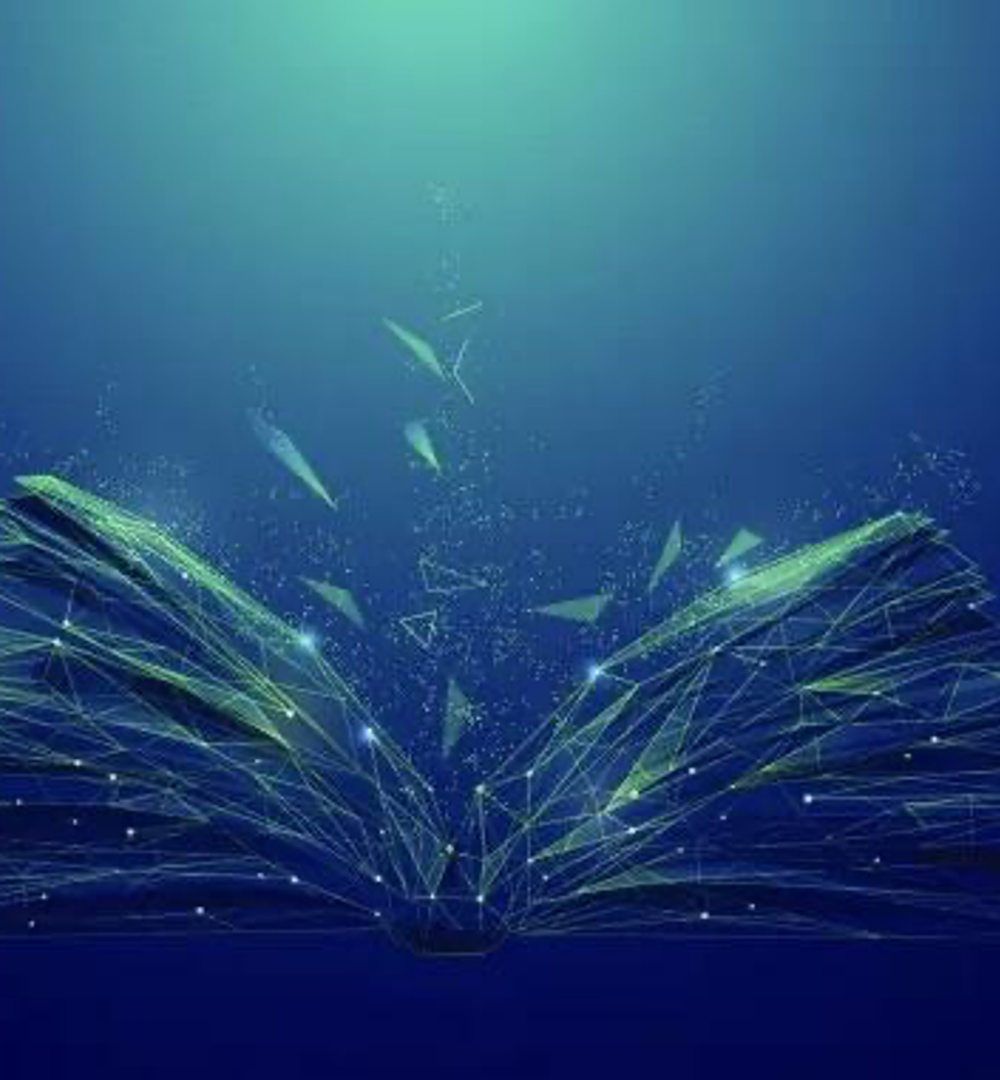
## **Open Science is like a three legged stool**

- Policy
- Infrastructure
- Research practices

**Each of these must be developed simultaneously if you want to be able to sit on the stool!**







## Trends in Open Science Policies

- Immediate open access to journal articles
- Research data - as open as possible as closed as necessary
- Preference for non-APC journals: repositories or no-fee to publish (so called “diamond” OA)
- Rights retention strategies (asking research to not sign over copyright to publishers)

# What policies that are driving change?

Under Horizon 2020, beneficiaries of ERC grants<sup>2</sup> must ensure **open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to its results**. The detailed requirements on open access to publications are contained in the Horizon 2020 ERC Model Grant Agreement (Article 29.2).



"With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo."

## a) Peer Reviewed Scholarly Publications:

Federal agencies should update or develop new public access plans for ensuring, as appropriate and consistent with applicable law, that all peer-reviewed scholarly publications<sup>4</sup> authored or co-authored by individuals or institutions resulting from federally funded research **are made freely available and publicly accessible by default in agency-designated repositories without any embargo or delay after publication**.



Our goal is to reach 100% of open access publications

(But) we will also support bibliodiversity so that the scientific community can regain control over the publishing system

# Main infrastructure components for open science

## Publications

- Journals
- Repositories
- Monographs

## Research Data Management

- Repositories
- Data management planning tools

## Other

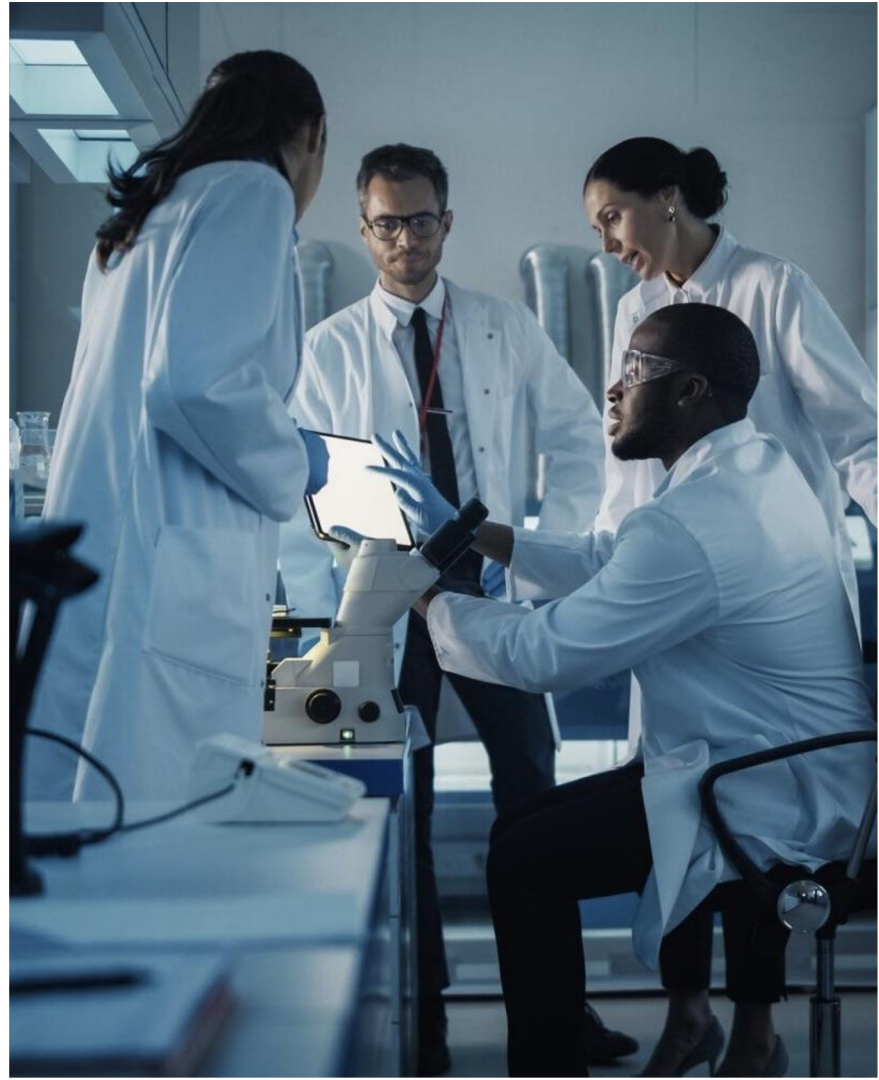
- Storage
- High speed networks
- Discovery systems / knowledge graph / indexes
- PIDs



# “Open Science” practices

- Posting preprints
- Publishing in open access journals / depositing in an OA repository
- Retaining copyright right
- Properly managing research data
- Open peer review
- Collaborating with other scientists and communities
- Using open source software

**Many researchers need training to feel comfortable and to benefit from open**





There is an inherent tension between open science and **current research assessment and ranking systems**



This tension must be addressed for researchers to change their practices

# Research assessment reform

European University Association (EUA), Science Europe, the European Commission have agreed to: “move away from using metrics like the Journal Impact Factor (JIF), Article Influence Score (AIS) and h-index as proxies for quality and impact.”



DORA: For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice

## Final questions for you when developing an effective open science policy

- Why are you doing this? Stay true to your principles
- What are your priorities areas - certain domains, publications vs research data - you can't do everything at once
- Make sure researchers can comply with the policy requirements - is there sufficient infrastructure in Nigeria or internationally to support policy requirements (or will it
- What are the key barriers to implementing any policy requirements and how will you address them?
- Are all the relevant stakeholders at the table?