Open science policy in France

Towards a research more transparent, more accessible and more reproducible

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1. Generalising open access to publications
2. Structuring, sharing and opening up research data
3. Opening up and promoting source code produced by research
4. Transforming practices to make open science the default principle

*Disciplinary and thematic variations*: open science policies must be adapted to disciplinary specificities
The French Open Science Committee

Open science steering committee
Chaired by Director General for Research and Innovation
Ministry of Higher Education and Research (MESR), big Research performing organisations, Universities, National Research Agency (ANR), Couperin consortium, High Council for Evaluation of Research and Higher Education (HCERES)

Executive board of Open Science
Chaired by National Coordinator for Open Science
MESR, main research performing organisations, Universities, ANR, Couperin consortium, HCERES, ADBU, EPRIST, + Colleges copilots

Colleges and Project groups
Chaired by experts in open science
2. Project groups: about dozen of topics, 100 people

Decides and funds
Makes decisions, arbitrates the use of the National Open Science Fund

Coordinates
Prepares decisions, proposes guidelines, monitors work

Provides expertise
Investigate issues, propose guidelines, initiate and manage projects
The Council for National Open Science Coordination (CoNOSC)

A network of national Open Science coordinators, created by France, Finland and Netherlands.

The first objective is to have an open science coordinator for each country!

“We help countries create, update, and revise their open science policies to empower the research community to embrace and smoothly implement openness in their everyday practice.”

At this time, it is a European initiative. It could be open to more continents, by one way or another.
Where we are now

The open science monitoring shows the progress made…

…and the road ahead
Welcome to the French Open Science Monitor

The key figures
Data updated on Dec 1, 2022 with publications released between 2010 and 2021

The publications
Publications in open access refer to publications from scientific research that are made available online in open access for both, without licence or financial barriers. The French Open Science Monitor focuses on French publications, i.e. publications where at least one of the authors is affiliated in France. It is therefore the activity of French researchers that is taken into account, and not that of French scientific publishers. The open access rate represents the ratio of the number of open access publications to the total number of publications on the same platform (e.g., by year, discipline, or publisher).

The generalisation of open access to scientific publications is one of the axes of the French national open science strategy, with the objective of a 100% open access rate in 2030. It facilitates, broadens and accelerates the dissemination of the results of research to scientific communities and to society in general (teachers, students, companies, associations, public policy actors, etc.).

Open access rate of scientific publications in France, with a Kudos ONR published during the previous year by observation year

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
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<tbody>
<tr>
<td>2021</td>
<td>67%</td>
</tr>
<tr>
<td>2020</td>
<td>62%</td>
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Growth (at trend): 5 points
What are our results based upon?

The French Ministry has decided not to rely on proprietary bibliometric databases as they conflict with the principles of open science.

It constitutes a novel endeavour to design an independent and sovereign tool.

To mitigate the lack of open metadata, the monitor’s team relies on R&D and machine learning.

Find out more on: frenchopensciencemonitor.esr.gouv.fr/about/methodology
French Open Science Monitor

Publications

2022 Results

Open access rate of research publications in France, with a Crossref DOI, published during the previous year and by observation year

Publications: 67% in open access

Growth (all fields) 2018-2022

+29 points

<table>
<thead>
<tr>
<th>Year</th>
<th>Open Access Rate</th>
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<td>67%</td>
</tr>
<tr>
<td>2021</td>
<td>62%</td>
</tr>
<tr>
<td>2020</td>
<td>52%</td>
</tr>
<tr>
<td>2019</td>
<td>46%</td>
</tr>
<tr>
<td>2018</td>
<td>38%</td>
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Find all indicators on: [frenchopensciencemonitor.esr.gouv.fr](http://frenchopensciencemonitor.esr.gouv.fr)
French Open Science Monitor
Research data

Proportion of publications that share:

Amongst French publications in 2021 mentioning the production of data, 22% are referring to sharing a dataset.

This indicator was created via artificial intelligence by the Ministry of Higher Education and Research.

Find all indicators on: frenchopensciencemonitor.esr.gouv.fr
• Current discussions with UNESCO for a global approach for monitoring open science
• We are open to cooperation with other countries
Open Access to publications

Some actions
What is the proportion of diamond publications for French researchers? (it’s not about French publishers)

Distribution of scientific publications in France, with a Crossref DOI, published in 2021 by opening route (observed in 2022)

- **Open access** 67%
  - publisher & open repositories 31%
  - open repositories 20%
  - publisher 16%

- **Closed access** 33%

Distribution of business models for articles published in 2021 and distributed in open access by their publisher

- **Gold full APC** 44%
- **Other** 27%
- **Hybrid** 21%
- **Diamond** 8%

French Open Science Monitor, Sources : Unpaywall, HAL, MESR

https://frenchopenscienccemonitor.esr.gouv.fr/
2013-2020

The highest growth rate is due to Springer Nature, Wiley and MDPI

x 3
The total cost of APC has tripled between 2013 and 2020

30 M€
is the estimated cost of APC for French institutions in 2020

25 %
of all articles published in France have paid APC in 2020

Data: 1 032 517 articles from BSO enriched with OpenAlex, Web of science, Couperin, QOAM

The methodology is based on known and trusted data sources, with extrapolation for missing data.

DOI: 10.52949/26
A recent international awareness-raising

The Council of the European Union has called for transparent, equitable and open access to scholarly publications

Let’s do the maths…

IF ALL JOURNALS SWITCH FROM SUBSCRIPTION TO APC:

• 8 million articles / year
• Publishing fee: 2000€ / article
• 16 billions / year!

TRENDS:

• In ten years:
  • With annual increase of 1% a year: 17.5 billions
  • With annual increase of 2.5%: 20 billions
  • With annual increase of 5%: 25 billions
• And guess what: the prices are going up by 15%/year
Shared or open research data policy

Open Source Software policy

First step: create the position of Chief Data and Software Officer (Isabelle Blanc)
COVID-19: Where is the data?

This finding indicates—contrary to what many have suggested—that a global pandemic is not sufficient to radically modify scientific practices.
The FAIR data promise and the reality…

"only 6.8% provided the requested data"
Funding mechanisms
The National Open Science Fund

- Call for projects – 2 to 3M€ each
- The call aims to:
  - Foster the conversion of existing editorial content towards an open access digital dissemination;
  - Reinforce and structure open access publishing resources, foster the trend towards editorial quality standards;
  - Foster financial models diversity of open access publishing and restore a balance in favour of the diamond OA model. Projects depending on transparent and reasonable publication fees can also be supported in the scope of this call;
  - Foster a continuum between publication, data and codes;
  - Foster reproducibility or traceability of the scientific method, integrity, and fight against publication bias by supporting the publication of negative results;
  - Support innovating editorial processes, e.g. in regards to peer reviewing, collaborative writing, etc.

https://www.ouvrirlascience.fr/national-fund-for-open-science/
The funding challenge: facing two main issues

The initial sin: pay to publish

The issue for open science infrastructures: the free rider
Next step: create a new funding mechanism for the publishing activity

The author-pays model for open-access journals is increasingly criticised because of the inequalities it generates and its unsustainability due to a lack of cost control. In this context, our study examines the funding models for academic journals which are published with no direct payment made by the readers (unlike the subscription model) nor by the authors (author pays model). The aim of this work is to test the feasibility, as well as the desirability of a direct or explicit funding model for Diamond journals, something which is almost non-existent at present. We have two objectives here: on one hand, to understand the current Diamond journal funding arrangements and constraints, and on the other hand to propose specific arrangements for funding Diamond journals by research funders.

DOI: 10.52949/35
## Funding decisions from National Open Science Fund - 2023

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Object</th>
<th>Total amount of money asked</th>
<th>French Funding</th>
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<tbody>
<tr>
<td></td>
<td>Infrastructures of the 4th AMI SCOSS</td>
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<tr>
<td>LA Referencia</td>
<td>Latin American Open Archives Network</td>
<td>268 K€</td>
<td>50 K€</td>
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<tr>
<td>ROR</td>
<td>Repository of identifiers for research organisations</td>
<td>987 K€</td>
<td>50 K€</td>
</tr>
</tbody>
</table>

### Post SCOSS programme funding

<table>
<thead>
<tr>
<th>DOAB</th>
<th>Directory of open access books</th>
<th>20 K€ / year</th>
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<tbody>
<tr>
<td>Open Citations</td>
<td>Open bibliographic and citation data</td>
<td>75 K€ / year</td>
</tr>
<tr>
<td></td>
<td>Total 2023</td>
<td>195 K€</td>
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</table>
The purpose of the Global Summit on Diamond Open Access is to bring the Diamond OA community together in a dialogue between journal editors, organizations, experts, and stakeholders from Global South and North, seeking to implement collective action in the spirit of the UNESCO and BOAI 20 years Recommendations on Open Science, where Equity, Sustainability, Quality and Usability are the pillars of our work.

For the first time, the global OA Diamond community will meet in the city of Toluca, Mexico, to exchange and coordinate actions for a better support of equity in scholarly communication practices.

https://globaldiamantinoa.org
How to encourage and promote open science?

The assessment system. Part of the problem or part of the solution?
European Council Conclusions on Open Science

"The ministers adopted conclusions on research assessment and implementation of open science. In the conclusions, the Council has given political impetus for joint action to be taken in three key areas:

• reform of research assessment systems,
• capacity building for academic publications,
• and the promotion of multilingualism as a means of communicating and disseminating the results of scientific research."
Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.
The Commitments

1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research

2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators

3. Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index

4. Avoid the use of rankings of research organisations in research assessment

5. Commit resources to reforming research assessment as is needed to achieve the organisational changes committed to

6. Review and develop research assessment criteria, tools and processes
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7. Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use

8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition

9. Communicate progress made on adherence to the Principles and implementation of the Commitments

10. Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research
Recognize and reward open science practices
- Open Science Awards for Research Software
- Open Science Awards For Research Data
- Open Science Awards For Doctoral thesis

https://www.enseignementsup-recherche.gouv.fr/fr/remise-des-prix-science-ouverte-du-logiciel-libre-de-la-recherche-83576
Thank you!

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