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SOFTWARE IN THE FRENCH PLAN FOR OPEN SCIENCE

Roberto Di Cosmo, co-chair Software and Source Code College
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Paris, November 30th 2023 College meeting with SPOS 2023 participants

Launch on 4 July 2018 by the Minister for Higher Education, Research and Innovation

- First Commitment : **Generalise open access to publications**
- Second Commitment : **Structure research data and make it available through open access**
- Third Commitment : **Be part of a sustainable european and international open science dynamic**

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Governance :
The Open Science Committee

Open science steering committee
Ministry of Higher Education, Research (MESR), research performing organisations, Universities, National Research Agency (ANR), Couperin consortium, High Council for Evaluation of Research and Higher Education (Hcéres)

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

Permanent secretariat for Open Science
MESRI, research performing organisations, Universities, ANR, Couperin consortium, Hcéres, ADBU, EPRIST, Colleges

Prepares decisions, proposes guidelines, monitors work

Colleges
Publications, Research Data, Skills and Training, Europe and International
(72 membres from 44 institutions)

Investigate issues, propose guidelines, initiate and manage projects

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Main achievements

- Creation of the **open science monitor**: measurement of the rate of French scientific publications in open access
- Progressive deployment of **open science strategies within research performing organisations and universities**, creation of a network of open science referents
- **Training actions targeted at doctoral students**: Passport to open science, practical guide for Phd students
- Contribution to the **structuring and governance of the EOSC**: structuring of EOSC France, French presence on the board and other EOSC governance bodies
- **Support to international open science infrastructures**: SCoSS labelled projects (DOAB, PKP, OpenCitations), RDA, Software Heritage

Software gets on the radar

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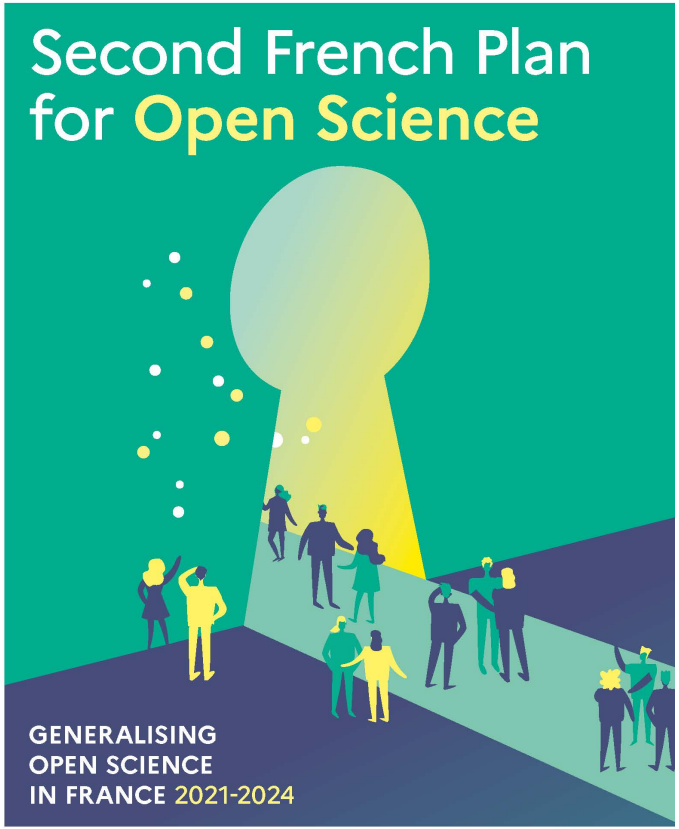

English

French

Launch on 6 July 2021

- Multiplying the **levers for change** in order to **generalise open science practices**
- Structuring the **policy for opening up or sharing research data**
- New commitments to the **opening of source code** produced by research
- **European and international inclusion** in the context of the French Presidency of the European Union
- **Disciplinary and thematic variations**: open science policies must be adapted to disciplinary specificities

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Colleges
Publications, Research Data, Skills and Training,Europe and International
Software and Source code (23 members!)

Investigate issues, propose guidelines, initiate and manage projects

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Co-chairs : Roberto Di Cosmo (Inria/Université Paris Cité), François Pellegrini (Université de Bordeaux)

Members :

- Florent CHUFFART (Université Grenoble Alpe)
- Mélanie CLÉMENT-FONTAINE (Université Paris-Saclay - Versailles Saint-Quentin)
- Ludovic COURTÈS (Inria)
- Sébastien GÉRARD (Université Paris-Saclay, CEA, List)
- Mathieu GIRAUD (CNRS, Université de Lille)
- Timothée GIRAUD (CNRS)
- Jean-Yves JEANNAS (Université de Lille, AFUL)
- Nicolas JULLIEN (IMT Atlantique)
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Path Three :
Opening up and promoting source code produced by research

7

Recognize and support the dissemination under an open source license of software produced by publicly funded research programmes

8

Highlight the production of source code from higher education, research and innovation

9

Define and promote an **open source software policy**

« The opening of software source code is a major challenge for the **reproductibility** of scientific results**.** »

« Distribution of software products under **open source licence** will be preferred. »

Define and promote an open source software policy

- Produce a **National Charter for Open Source Software** coming from higher education, research and innovation
- Develop the **link between data and software** through a network of **Chief Data Officers** in the various universities and research performing organisations.
- Develop the **economic models of open source software** and make them known within commercialization services
- **Support Software Heritage** and recommend it for the archiving and referencing of source code

Recognise source code as a contribution to research

- Create an **open source research software prize**
- **Provide greater recognition** for software production in the career of researchers, research support staff

Build an ecosystem that connects code, data and publications

- Develop **proper coordination** between software forges, open publication archives, data repositories and the scientific publishing sector.

The first national Open Science award for Research Software

2022 edition

- 120+ high quality submissions
- 4 prizes
- 6 accessit
- 4 categories (inclusiveness)
- awarded by the Ministry of Research

Institutionalised as an annual award

2023 edition completed, already inspired other countries (e.g. Australian award, Helmoltz award)

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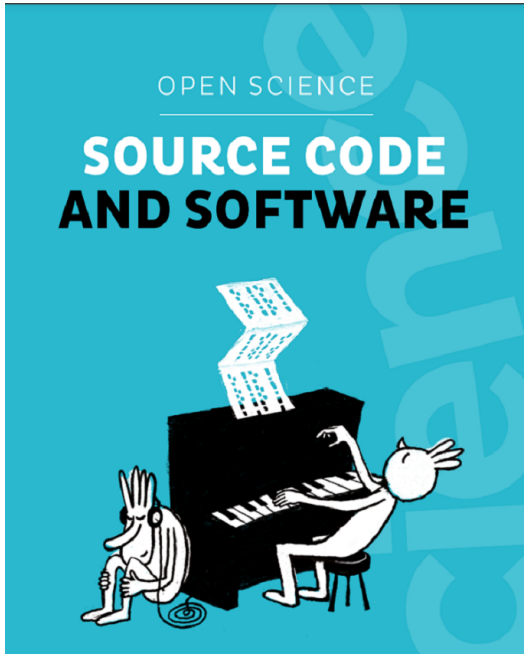
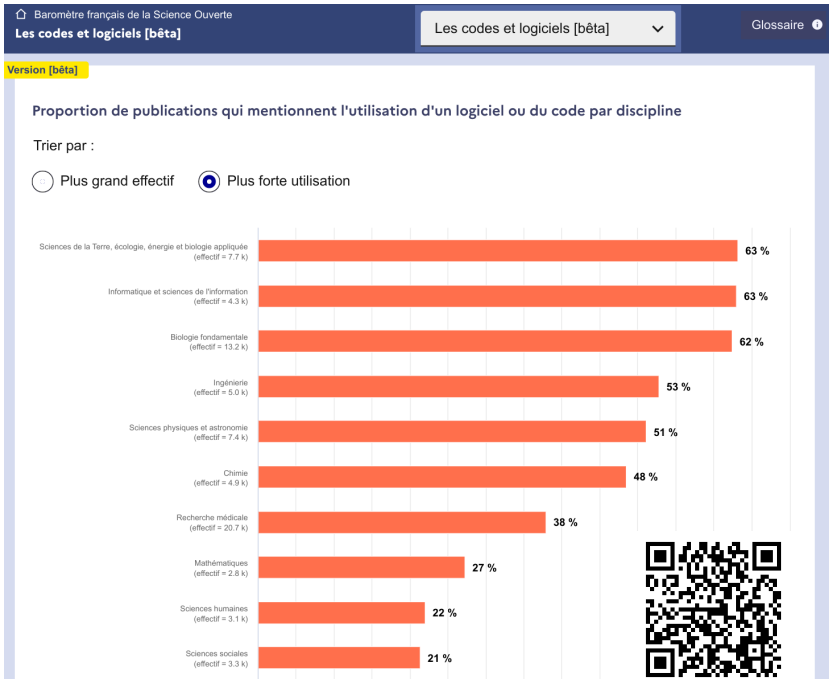
Guide for PhD students



EN

FR

Open Science Monitor



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Report on software forges

Ouvrir la science !

Higher Education and Research Forges in France

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Software Award report

OPEN LETTER

Establishing a national research software award [version 1; peer review: 2 approved]

Isabelle Blanc Catala, Roberto Di Cosmo, Mathieu Giraud, Daniel Le Berre, Violaine Louvet, Sophie Renaudin,

College of experts for source code and software Committee for Open Science

This article is included in Software gateway

Article Authors Metrics

Abstract

Software development has become an integral part of the scholarly ecosystem, spanning all fields and disciplines. To support the sharing and creation of knowledge in line with open science principles, and particularly to enable the reproducibility of research results, it is crucial to make the source code of research software available, allowing for modification, reuse, and distribution.

Recognizing the significance of open-source software contributions in academia, the second French Plan for Open Science, announced by the Minister of Higher Education and Research in 2021, introduced a National Award to promote open-source research software. This award serves multiple objectives: firstly, to highlight the software projects and teams that have devoted time and effort to develop outstanding research software, sometimes for decades, and often with little recognition; secondly, to draw attention to the importance of software as a valuable research output and to inspire new generations of researchers to follow and learn from these examples.

We present here an in-depth analysis of the design and implementation of this unique initiative. As a national award established explicitly to foster Open Science practices by the French Minister of

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Software Heritage in the National Strategy of Research Infrastructures

March 8th 2022

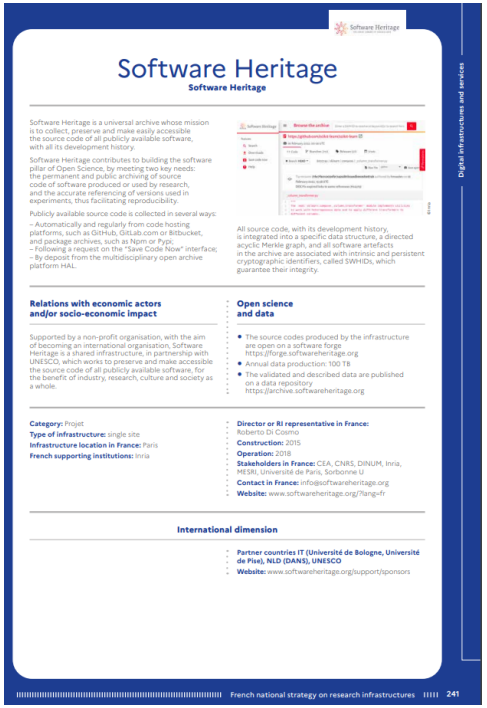
For the first time

Research infrastructures

for software

And not only software

for research infrastructures



Takeaway

- First research software policy **institutionalised at national government level**
- Strong commitment to **put software on par with publications**
- Clear vision to take into account **all the complex facets** of research software
- Desire to **collaborate openly** at the international level

Mission statement : https://www.ouvrirlascience.fr/research-software-as-a-pillar-of-open-science/
Software College homepage : https://www.ouvrirlascience.fr/software-and-source-codes-college/

Come in, we're open

We want to hear from you