



# MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE

*Liberté*

*Égalité*

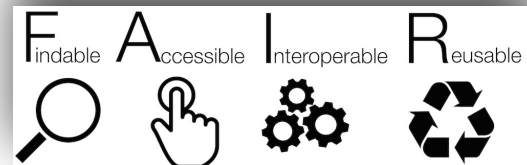
*Fraternité*

Direction Générale de la Recherche et de l'Innovation (DGRI)  
Service de la Stratégie de la Recherche et de l'Innovation (SSRI)  
Département Services et Infrastructures Numériques (A7)



MINISTÈRE  
DE L'ENSEIGNEMENT  
SUPÉRIEUR  
ET DE LA RECHERCHE

*Liberté  
Égalité  
Fraternité*



# OPEN AND FAIR SCIENCE

[Volker Beckmann](#), Coordinator of the European Open Science Cloud (EOSC)  
French Ministry for Higher Education and Research (MESR)



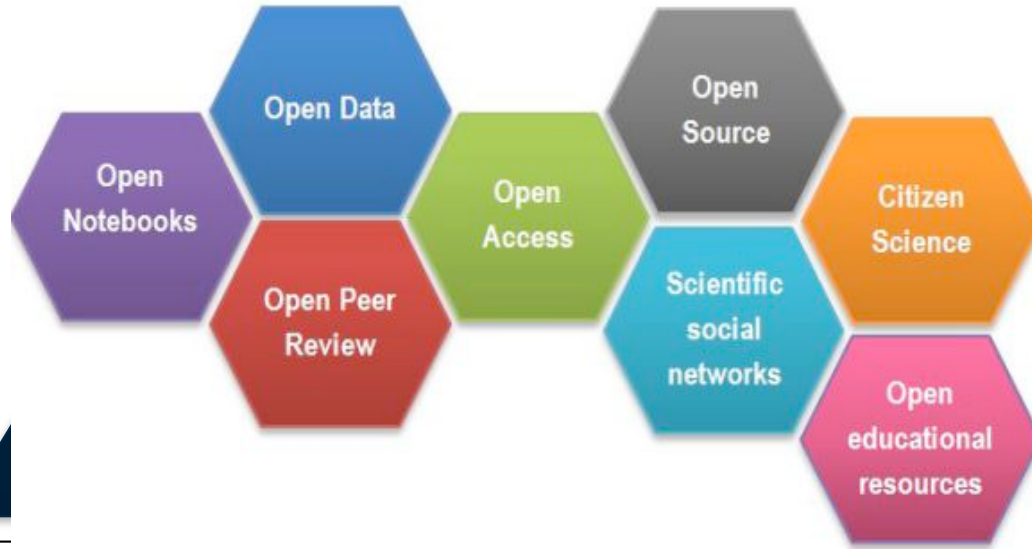
# Career paths can be unforeseeable

- PhD in astrophysics (2001; Hamburg / Milano) on AGN
  - Astrophysicist in Germany, Italy, Switzerland (twice), USA, France
  - specialised on data treatment from satellite missions (ROSAT, BeppoSAX, INTEGRAL, Swift, Euclid, SVOM, ..)
  - At CNRS (France) since 2009
  - Scientific director for computing and data science at IN2P3\* (2016 – 2020) and adviser on the European Open Science Cloud at CNRS (2019-2020)
  - Responsible for the implementation of EOSC in France at MESR (2020 - )
- \*IN2P3: National institute for nuclear, particle and astroparticle physics



# Open Science

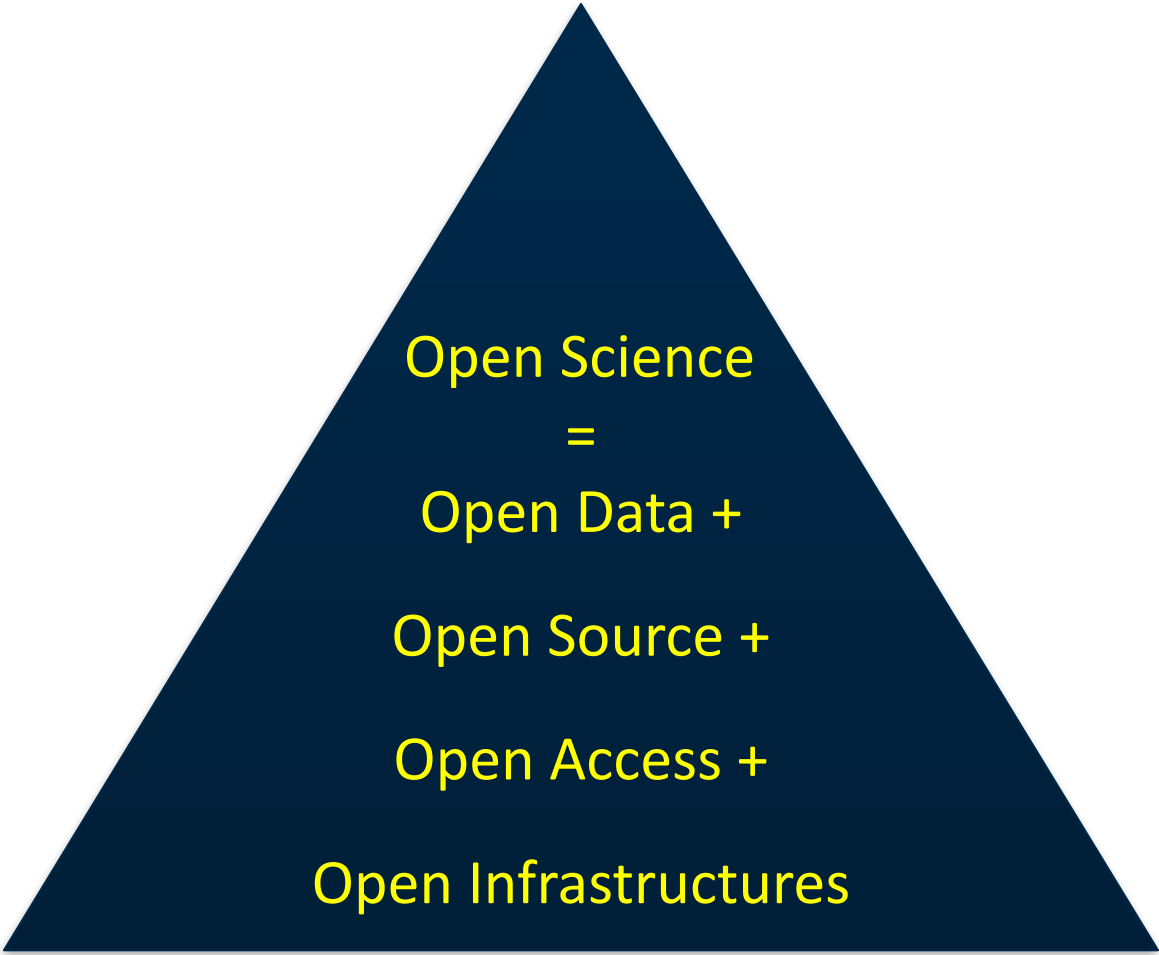
# Open Science



# Open Science

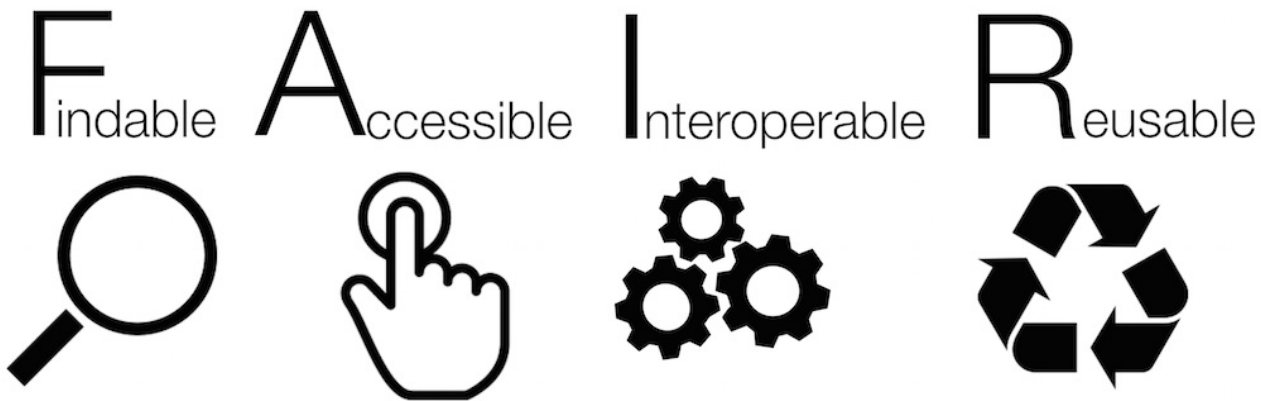
Access for all researchers  
to scientific data, expertise,  
services, and documentation.

With the possibility of reusing the data in a  
new context with computing resources  
optimised to the specific problem.



Open Science  
=  
Open Data +  
Open Source +  
Open Access +  
Open Infrastructures

# Data have to be FAIR before they are open

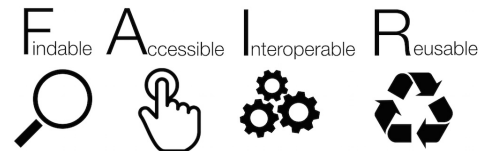


“The FAIR principles emphasize machine-actionability (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention) because humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity, and creation speed of data.” ([Wikipedia](#))

Wilkinson et al. 2016, *Sci Data* 3, 160018: <https://www.nature.com/articles/sdata201618>



# Motivation for researchers



Why should researchers / research groups / institutions ...  
share research data, software, services, publications openly ?

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Why should researchers / research groups / institutions ... share research data, software, services, publications openly ?

- visibility of your research
- enhance possibility to be recognised in the field
- positive aspect when your work / career is reviewed
- additional funding opportunities
- new collaborations and new research
- quality control
- required by your group / institution / country's law

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- required by your group / institution / country's law
- **It's the right thing to do!**

# Risks for researchers ?

What are the [perceived] drawbacks and risks when making results FAIR and sharing research data, software, services, publications openly ?

# Risks for researchers ?

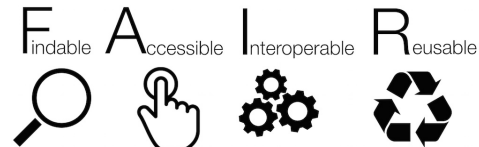
What are the [perceived] drawbacks and risks when making results FAIR and sharing research data, software, services, publications openly ?

- additional work to make data FAIR, to provide documentation / user support for software / services, ...
- unclear what to do and where to get help
- others can use “my” data and “my” software / service to publish results ahead of me
- contribution to Open Science not recognised in career assessment

# How to contribute to Open Science ?

- produce research results as FAIR data
- make significant software Open Software
- ensure your publications are Open Access
- use trusted repositories
- provide the necessary documentation along with your work

# FAIR data

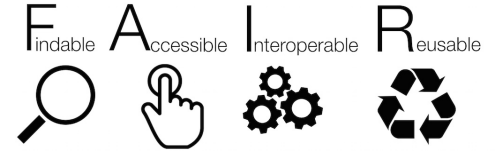


Example for FAIR data: astrophysics' data in HEASARC / ESA / ISDC / ASI-SSDC / DARTS @ ISAS/JAXA / GWOSC ... archive

## Findable\*

- F1. (Meta)data are assigned a globally unique and persistent identifier
- F2. Data are described with rich metadata (defined by R1 below)
- F3. Metadata clearly and explicitly include the identifier of the data they describe
- F4. (Meta)data are registered or indexed in a searchable resource

\*GO FAIR, FAIR Principles, <https://www.go-fair.org/fair-principles/>



## Accessible\*

Once the user finds the required data, they need to know how they can be accessed, possibly including [authentication](#) and [authorisation](#).

A1. (Meta)data are retrievable by their identifier using a standardised communications protocol

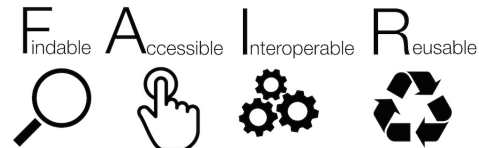
A1.1 The protocol is open, free, and universally implementable

A1.2 The protocol allows for an authentication and authorisation procedure, where necessary

A2. Metadata are accessible, even when the data are no longer available

\*GO FAIR, FAIR Principles, <https://www.go-fair.org/fair-principles/>



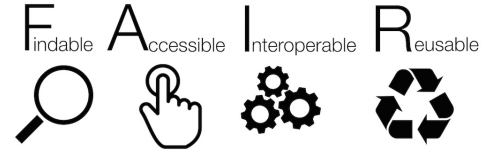


## Interoperable\*

The data usually need to be integrated with other data. In addition, the data need to interoperate with applications or workflows for analysis, storage, and processing.

11. (Meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
12. (Meta)data use [vocabularies](#) that follow FAIR principles
13. (Meta)data include qualified references to other (meta)data

\*GO FAIR, FAIR Principles, <https://www.go-fair.org/fair-principles/>



## Reusable\*

The ultimate goal of FAIR is to optimise the reuse of data. To achieve this, metadata and data should be well-described so that they can be replicated and/or combined in different settings.

R1. (Meta)data are richly described with a plurality of accurate and relevant attributes

R1.1. (Meta)data are released with a clear and accessible data usage license

R1.2. (Meta)data are associated with detailed provenance

R1.3. (Meta)data meet domain-relevant community standards

\*GO FAIR, FAIR Principles, <https://www.go-fair.org/fair-principles/>

# How to prepare?

First step: reflect about the data-lifecycle of your project



Credits: [CESSDA](#)

# Data Management Plan

Describe the data life cycle in a data management plan (DMP).

DMP:

- describe the data used (origin, volume, type, format, standards used)
- who is going to use it? Access restrictions, timeline, ...
- where is it going to be stored? Trusted repositories!
- how is access control performed?
- how are data going to be made public?
- which data can be deleted when?
- what's the long-term plan for your data?
- funding issues?

# Data Management Plan

## How to set up a DMP?

- aim at a machine-readable DMP (easy re-use for different context)
- use one of the many platforms that provide DMPs
- DMP is a living document — create, improve, update when needed

DMP OPIDoR: <https://dmp.opidor.fr/>

DMP Tool: <https://dmptool.org/>

DMP Expert Guide: <https://dmeg.CESSDA.eu/Data-Management-Expert-Guide>

# Software

- software can be a relevant part of your research output
- version control, quality control, best practices, ...
- consider making also the software FAIR
- e.g. use GitHub (MS) or GitLab (possibility to have a self-hosted version and continuous integration)
- consider publishing a paper about your software



# Software Heritage

- <https://www.softwareheritage.org>
- public research software archive developed and funded by : Inria, CEA, CNRS, Huawei, intel, MESR, Microsoft, Société Générale, ... and in collaboration with UNESCO
- mission: **collect**, **preserve**, and **share** all software that is publicly available in source code form.
- indexed, organised, referencable, and accessible
- unique identifiers
- you can submit also through HAL : <https://doc.archives-ouvertes.fr/en/deposit-2/deposit-software-source-code/>
- you can push your GitHub / GitLab development into Software Heritage

# Publication

- as a researcher, you want as many readers of your papers as possible
- classical approach: try to have papers in high-impact journals (Nature, Science, ApJ, ...)
- Publications behind paywall
- Open Access to publication: reader doesn't have to pay
- But *somebody* has to pay ...





# Publication

- 20th century model: publication in a few, well-known journals (ApJ, A&A, MNRAS, AN, ...)
- Reader has to pay >>> universities, institutes pay for abonnements
- starting 1991: [arXiv](https://arxiv.org/)
- researchers publish in standard journals and put article on arXiv
- drawback: arXiv version not necessarily final version, not necessarily published in journal, some journals do not allow you to put your paper on arXiv



# Open Access Publications

Open Access: reader doesn't have to pay

Different models for Open Access journals:

- Golden: The publication costs (article processing charges = APC) are covered by authors / their institutions
- Green: text published in trusted repositories (e.g. arXiv)
- Diamond: APCs are covered otherwise, e.g. by agreements ([SCOAP3](#), mainly high-energy physics) or by an organisation ([Open Research Europe](#) for articles stemming from EC funded projects)

# Open Access Publications

- Many funding (ANR, EC, ...) and research performing organisations (CNRS, ...) require Open Access publication
- arXiv considered Open Access
- some countries have Open Access contracts with some publishers
  
- institutions can allow to pay for APCs of Open Access publications
- be aware of [predatory journals](#) (see e.g. [Grudniewicz et al. 2019](#), Nature [behind paywall!])
- Charging a fee is a legitimate business model, but the publisher should be providing a good publishing service in return
- make sure to publish in trusted journals: <http://thinkchecksubmit.org/>

# Open Access Publications

- Consider to publish also other documents, which are not foreseen for peer-reviewed journals
- Proceedings (arXiv), project descriptions, reflection results, smaller data sets (GB range) ...
- Consider Zenodo: <https://zenodo.org/>
- Safe (run by CERN), trusted, citable (DOI), Open or closed, GitHub integration



## Second French Plan for Open Science: Generalising Open Science in France 2021-2024 (july 2021)



- Obligation to publish in open access all articles and books resulting from publicly funded calls for proposals
- Obligation to disseminate publicly funded research data.
- Promote widespread adoption of data policies that cover the whole lifecycle of research data, to ensure that they are Findable, Accessible, Interoperable and Reusable (FAIR)
- Create Recherche Data Gouv, the federated national platform for research data
- Continue to structure the French community in its contribution to the EOSC: promote the EOSC membership to French research organisations, moderate the community of French EOSC stakeholders, organise an annual EOSC-France event
- Triple the budget for open science through the National Fund for Open Science and the Investments for the Future Programme

### Loi pour une République numérique (2016)



# Open Science in the focus of policies

- Policies : development on institutional, national and international level
- G7 declaration May 2023: [Respect for freedom and inclusiveness in scientific research and promotion of open science](#)
- Examples for policies at EU level : [Data Act](#), [Data Governance Act](#), [Digital Services Act](#), ...
- [European Research Area \(ERA\) Policy Agenda](#) (Action 1)
- Examples for Open Science policies at national level : [Estrategia Nacional de Ciencia Abierta](#) (ES), [NPOS document on Open Science](#) (NL), [Piano Nazionale Scienza Aperta](#) (IT), [Plan National pour la Science Ouverte](#) (FR), US memorandum “[Ensuring Free, Immediate, and Equitable Access to Federally Funded Research](#)”
- Examples at institutional level: [CNRS Roadmap Open Science](#), [CNRS Research Data Plan](#), [La Science Ouverte à l'Université Paris-Saclay](#), [Italian Open Science policy catalogue](#), [Positionspaper der DFG: Open Science als Teil der Wissenschaftskultur](#), ...

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# Risks for researchers ?

additional work to make data FAIR, to provide documentation / user support for software / services, ...

- Help is on the way!
- Most institutions have Open Science offices, programmes, support
- Open Science activities can be included in projects supported by ANR, European Commission, ... grants
- Making your data FAIR saves you time later on



# Risks for researchers ?

Others can use “my” data and “my” software / service to publish results ahead of me

- INTEGRAL versus Swift approach — which project was more successful for its teams?
- your work and results of your work belong to the research performing organisation you are working for (or to the research community at large)
- Open data and software encourage to derive results in a timely manner

# Risks for researchers ?

Contribution to Open Science not recognised in career assessment

- change in research assessment
- e.g. CNRS : Transform the individual assessment of researchers by making it compliant with the goals of Open Science together with taking their contributions to Open Science into account in assessments. ([CNRS roadmap for Open Science](#))

# Change in Research Assessment



Coalition for Advancing Research Assessment ([COARA](#)): “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.”

- Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research
- Base research assessment primarily on qualitative evaluation
- Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index
- Avoid the use of rankings of research organisations in research assessment
- Commit resources to reforming research assessment as is needed to achieve the organisational changes committed to
- [Agreement](#) (July 2022) signed by [472 organisations](#) across the world (e.g. CERN, ANR, CNRS, France Universités, DFG, CNR, NWO, swissuniversities, ETH, UKRI, ... and by most of the large universities in Europe)

# Make yourself visible & unique\*



- publications, data, software, ... should have unique identifiers
- make sure your research products can be linked to you
- researchers move a lot during their career, a unique identifier helps keeping track
- consider ORCID: <https://orcid.org>
- easy to register
- add information as you see fit (biography, memberships, works, INSPIRE, link to your social media accounts)
- make sure information is up-to-date
- you are in control what is visible to the world
- ORCID is interoperable with INSPIRE, arXiv, HAL, ...

\*[of course you are all already unique!](#)



# Open Science in context: Digital Transition

- Greatly increased need for FAIR data, services and e-infrastructures in all research areas
- We are in the “[Digital Decade](#)”.
- Further progress is only possible if data (and services) are FAIR by design
- Sharing and concentrating resources (HR, e-infrastructures, funding, ...)



# Digital Transition: How to proceed?

- Pooling: identify key e-infrastructures, key players, concentrate funding streams
- Provide solutions for the long tail of science, data workshops, metadata catalogue, ... : [Research Data Gouv](#) (RDG)
- Make data FAIR, share them and necessary services across domains and border





## What's the EOOSC ?

- Web of FAIR\* research data and services
- Access for all European researchers to scientific data, services, and e-infrastructures
- Build on existing services and infrastructures
- EOOSC « *free at the point of use* »
- EOOSC will respond to the needs of the research community

\*FAIR : Findable, Accessible, Interoperable, Reusable

« ... we open up data as a resource for innovation and bring new solutions to the market – and our scientists are already beginning to do this. We are now building a European Open Science Cloud. It is a trusted space for researchers to store data and to access data from other disciplines », EC president Ursula von der Leyen, 22.1.2020  
[vidéo](#) / [transcript](#)

“The EOOSC is fully aligned with the French strategies on digital transition and on Open Science. EOOSC is part of our Open Science strategy, the French National Plan for Open Science, as expressed in 2018 and 2021, which explicitly encourages the structuration of the French research landscape along with the EOOSC. We also underline the importance of the EOOSC infrastructure to support Open Science in the context of our national strategy on data, algorithms and source codes. Open Science needs services and infrastructures it can be build upon, it needs skills and knowledge to facilitate the whole research data lifecycle, it needs capacity to host services and data.”

Cyril Moulin, Adjoint à la Directrice Générale de la Recherche et de l'Innovation au MESR, November 2022

# EOSC vision : needs

1. Trusted data repositories
2. FAIRisation of data, *Data Management Plans* (DMPs)
3. Adoption and consolidation of services
4. Networks, (heterogeneous) e-infrastructures, HPC / HTC
5. ....



Main interests in EOSC topics expressed per CNRS institute, see [« CNRS Institutes and the EOSC – status and vision »](#)



# EOSC is a portal

Check out the services available in the EOSC portal:

<https://marketplace.eosc-portal.eu/>

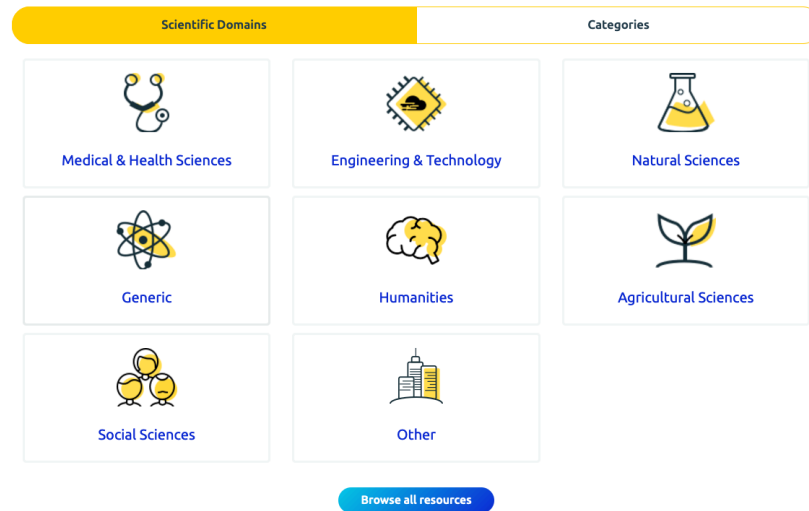
You don't find what you are looking for? Describe your needs and get support from the EOSC team:

<https://marketplace.eosc-portal.eu/projects>

# Provide services

<https://providers.eosc-portal.eu/becomeAProvider>

Think of EOSC as an interface!



# EOOSC is a community

- colleagues from all domains and countries
- interdisciplinary
- find, share, and develop solutions
- form strong consortia (for example for Horizon Europe, national financing proposals)
- [EOOSC-Association](#) : the users and providers of EOOSC (i.e. you!)



Meeting of the [EOOSC Association](#), May 2022



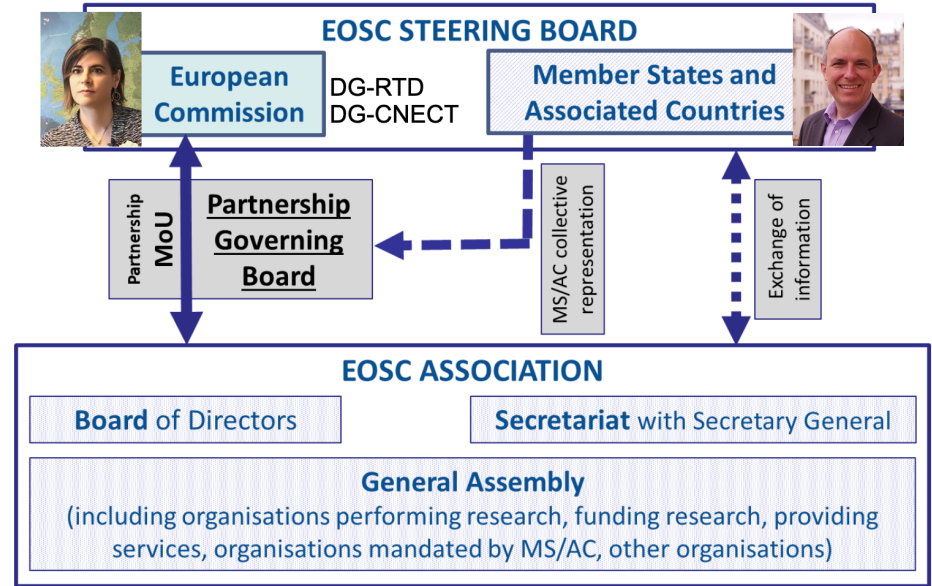
Workshop  
[EOOSCpilot](#), May  
2018

# EOSC is a partnership

- One of 12 co-programmed partnerships in *Horizon Europe*
- 3 partners: European Commission, Member States, [EOSC Association](#)

Partners' commitments :

- European Commission : ~490 M€ in [Horizon Europe](#) (2021-2027) for EOSC
- [EOSC Association](#) : provides the services of EOSC (in-kind) at a level  $\geq$  the financial contributions from the Commission
- Member states: support the EOSC through policy development, financing of infrastructures and organisations necessary to run EOSC and help with the coordination.



# Horizon Europe EOSC Work Program 2024

Opening: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON- INFRA-2024-...	Title	Type	Budget total [M€]	#projets
EOSC-01-01	FAIR and open data sharing in support of the mission <b>adaptation to climate change</b>	<a href="#">RIA</a>	16	2
EOSC-01-02	Supporting the <b>EOSC Partnership</b> in further consolidating the coordination and sustainability of the EOSC ecosystem	<a href="#">CSA</a>	4	1
EOSC-01-03	Enabling a network of EOSC <b>federated and trustworthy repositories</b> and enhancing the framework of generic and discipline specific services for data and other research digital objects	<a href="#">CSA</a>	5	1
EOSC-01-04	Long-term access and preservation infrastructure development for EOSC, including data quality aspects	<a href="#">RIA</a>	8	1
EOSC-01-05	Innovative and customizable services for <b>EOSC Exchange</b>	<a href="#">RIA</a>	28	4
2024-EOSC-01			61	9

## [Work programme for 2023/2024](#)

# Horizon Europe EOSC Work Program 2024

Call opens: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON-INFRA-2024-...	Description (summary)
<p>EOSC-01-01</p> <p><a href="#">RIA</a></p> <p><b>16 M€</b></p> <p>2 projects foreseen for funding</p>	<p>FAIR and open data sharing in support of the mission <b>adaptation to climate change</b></p> <p>Expected outcome:</p> <ul style="list-style-type: none"> <li>• <b>Seamless interactions between EOSC, operational data spaces or environments</b> (e.g. the DRMKC Risk Data Hub, the European Climate Adaptation Platform (Climate Adapt, relevant Copernicus Services, the GEOSS Portal, the EOSC platform, etc.), researchers and other stakeholders contributing to adaptation to climate change to store, share, access, analyse and process research data and other research digital objects from their own discipline, across research infrastructures, disciplines and national borders;</li> <li>• Open and FAIR data is the new norm for research contributing to adaptation to climate change;</li> <li>• <b>EU-wide sharing of research data</b> relevant to this area is shown to be a critical mechanism to facilitate climate adaptation across Member States and Associated Countries with involvement of the regions and local authorities;</li> <li>• EOSC grows into a <b>trusted research and innovation data space and service platform</b> in Europe that articulates with the <b>Green Deal data space</b> and supports the interdisciplinary research community involved in mission climate adaptation</li> <li>• Contribute to the Horizon Europe EOSC Partnership and other relevant partnerships related to adaptation to climate change.</li> </ul>

# Horizon Europe EOSC Work Program 2024

Call opens: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON-INFRA-2024-...	Description (summary)
<p>EOSC-01-02</p> <p><a href="#">CSA</a></p> <p>4 M€</p> <p>1 project</p>	<p>Supporting the <b>EOSC Partnership</b> in further consolidating the coordination and sustainability of the EOSC ecosystem</p> <p>Expected outcome:</p> <ul style="list-style-type: none"> <li>• EOSC increases the level of coordination of national and European initiatives, creating mechanisms of mutual learning, replication of best practices and joint activities. This expected outcome will be achieved mainly through <b>financial support to third parties</b> in the form of cascading grants [<b>1 M€ for grants up to 100 k€</b>];</li> <li>• EOSC increases the level of coordination and directionality among EOSC-related initiatives and Horizon Europe funded actions, ensuring a more proactive and impactful approach towards attaining the SRIA objectives. This expected outcome will be achieved through targeted financial support to third parties in the form of cascading grants;</li> <li>• Step forward towards a more sustainable EOSC that enables smooth transnational access to data and services, through the test and implementation of coherent business models;</li> <li>• Facilitated <b>access to information to and from all EOSC stakeholders</b> across countries, institutions, networks and initiatives is increasingly enabled.</li> </ul>

# Horizon Europe EOSC Work Program 2024

Call opens: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON-INFRA-2024-...	Description (summary)
<p>EOSC-01-03</p> <p><a href="#">CSA</a></p> <p>5 M€</p> <p>1 project</p>	<p>Enabling a network of EOSC <b>federated and trustworthy repositories</b> and enhancing the framework of generic and discipline specific services for data and other research digital objects</p> <p>Expected outcome:</p> <ul style="list-style-type: none"> <li>• A <b>European network of trustworthy repositories</b> is established that will enhance the EOSC ecosystem, contribute to the consolidation of Open Science practices and support European researchers.</li> <li>• The concept and <b>requirements of trustworthy repositories are harmonised</b> and therefore support the European funders in better addressing the Open Science provisions in their programmes</li> <li>• Data depositing ecosystem in Europe are adequately supported, providing a <b>common voice for research digital repositories</b> to better interact with the research and innovation policy making and to respond in a more coordinated and cohesive manner to the need of the European researchers.</li> </ul> <p>Synergies and complementarities should be sought with projects funded under the topics HORIZON-INFRA-2021-EOSC-01-05, and should continue to build on outcomes from the Horizon 2020 project FAIRsFAIR. Close cooperation is also expected with the projects funded under the topics HORIZON-INFRA-2023-EOSC-01-01, and HORIZON-INFRA-2024-EOSC-01-04.</p>

# Horizon Europe EOSC Work Program 2024

Call opens: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON-INFRA-2024-...	Description (summary)
<p>EOSC-01-04</p> <p><a href="#">RIA</a></p> <p>8 M€</p> <p>1 project</p>	<p>Long-term access and preservation infrastructure development for EOSC, including data quality aspects</p> <p>Expected outcome:</p> <ul style="list-style-type: none"><li>• <b>Practices, standards and tools for long-term preservation</b> are mainstreamed in the EOSC ecosystem.</li><li>• The emergence of a European <b>distributed infrastructure for long-term preservation</b> and access is adequately supported.</li><li>• The sustainability of long-term preservation among the European scientific community is significantly enhanced</li></ul> <p>Align with the EOSC Partnership and coordinate and collaborate with the projects funded under the topic HORIZON-INFRA-2024-EOSC-01-03 with regards to the interconnection of repositories and other archiving infrastructure, and with the projects funder the topic HORIZON-INFRA-2023-EOSC-01-02, especially with regards to the quality dimension explored under that topic</p>

[Work programme for 2023/2024](#)



# Horizon Europe EOSC Work Program 2024

Call opens: 06/12/2023; Deadline: 12 March 2024

Topic HORIZON-INFRA-2024-...	Description (summary)
<p>EOSC-01-05</p> <p><a href="#">RIA</a></p> <p>28 M€</p> <p>4 projects foreseen for funding</p>	<p>Innovative and customizable services for <b>EOSC Exchange</b></p> <p>Expected outcome:</p> <ul style="list-style-type: none"><li>• Next generation EOSC provides researchers with the means to <b>easily access complete datasets and analysis platforms and provide services</b> that support reproducibility, as well as ensuring long-term preservation and long-term availability of these research data and tools.</li><li>• Ecosystem of <b>novel tools and services, as many new FAIR-by-design datasets as possible</b>, whereby researchers are able to deliver much more rapidly the outputs of each part of the research lifecycle, including data and software, with the same level of precision as they deliver publications today</li><li>• Enhanced services and tools for researchers to lower the bar and underpin the <b>initial research planning and preparation phase</b> (i.e. entry phase) of the research lifecycle.</li></ul> <p>Participation of the private sector, in particular SMEs, is recommended for both the development and further exploitation of the project result</p>

[Work programme for 2023/2024](#)

# Digital Transition: How to proceed?

EOSC (European Open Science Cloud):

- Develops solutions in EU-funded projects (HORIZON-INFRA-EOSC)
- Increase the EOSC service offer (EOSC-Future, procurement, EOSC-Association)
- Ensure sustainability at European, national and institutional level
  
- EU level: prepare the Open Science / EOSC actions for the next framework programme (FP10 after Horizon Europe)
- Make EOSC fully operational
- Digital Transition in France - preparation of the 2023 roadmap (+ budget)

# European Open Science Cloud



## *Web of FAIR\* research data and services*

- vision, portal, community and partnership programme
- benefit from financing through Horizon Europe ([HORIZON-INFRA 2023/2024](#))
- [What is the EOSC / Qu'est-ce que l'European Open Science Cloud](#) (2 pages)
- <https://eosc-portal.eu>

## Next events:

- [EOSC-France annual workshop](#) for everyone, June 13-14 in Montpellier and online
- [EOSC Symposium](#), September 20-22 in Madrid and online

If you are interested to get ~monthly updates on EOSC in France, you can sign up to the EOSC-France mailing list:

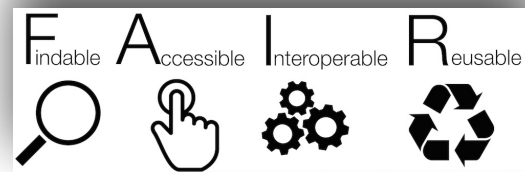
[https://groupes.renater.fr/sympa/info/eosc\\_france\\_info](https://groupes.renater.fr/sympa/info/eosc_france_info)

# Open and FAIR Science

- Importance to make your research result data FAIR (Findable Accessible Interoperable Reusable) and Open
- Visibility, career, requirement, good practice, the right thing to do!
- Data Management Plan is the first step >>> reflection process about your work
- This should go with Open Software, Open Access publications, ORCID
- Change of research assessment ongoing — change of culture
- Digital Transition
- EOSC to provide solutions and opportunities for your research activities



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# Annexe

# Open Science and EOSC calendar 2023



Date	Event
13-14/06	EOSC-France tripartite event (noon-to-noon, Montpellier and online) : <a href="https://eoscfrence2023.sciencesconf.org">https://eoscfrence2023.sciencesconf.org</a>
19-20/06	<a href="#">The Potential of Research Data: How Research Infrastructures Provide New Opportunities and Benefits for Society</a> (Lund / Sweden)
19-23/06	<a href="#">EGI Conference 2023</a> (Poznań / Poland)
20-21/06	<a href="#">e-IRG</a> Workshop (Malmø and online)
20-22/09	<a href="#">EOSC Symposium 2023</a> (Madrid)

## EOSC Key Documents

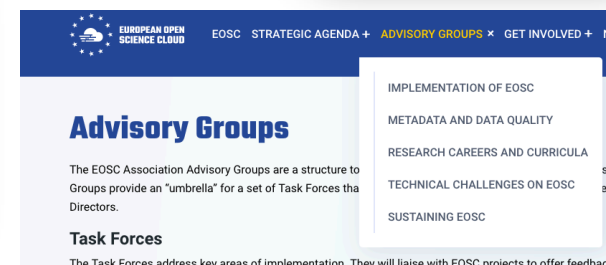
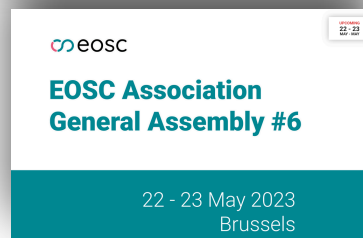


- [Qu'est-ce que l'European Open Science Cloud / What is the EOSC](#)
- [EOSC en 7 questions](#)
- [EOSC Executive Board final progress report](#)
- [Results of the EOSC Working Groups \(2019 / 2020\)](#)
- [EOSC Strategic Research and Innovation Agenda \(SRIA\)](#)
- [EOSC Association Statutes](#)
- [Scholarly Infrastructures for Research Software](#)
- [ESFRI Science Clusters Position Statement on Open Science](#)
- [Horizon Europe Work Program for Research Infrastructures / EOSC](#)



## EOSC : Further Links

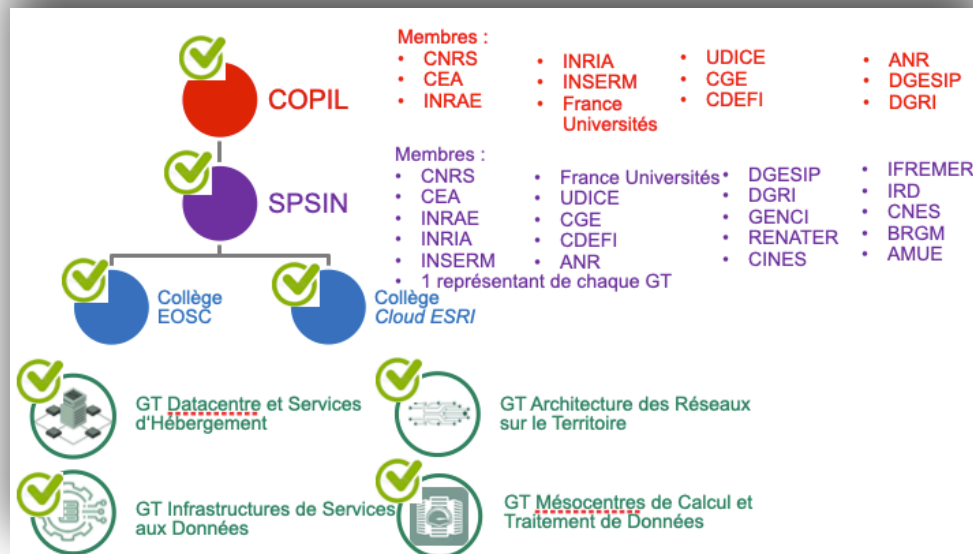
- [EOSC Portal](#)
- [EOSC Association](#)
- [EOSC Association Advisory Groups](#)
- [Journées EOSC-France, 13-14 juin 2023](#)
- [MESR Horizon Europe web page](#)
- [European Commission EOSC page](#)
- [EOSC-Pillar](#)
- [EOSC-Future](#)
- [EOSC Symposium 2022](#)
- [EOSC Symposium 2023](#)





# EOSC en France

- EOSC : un pilier de la transition numérique en France
- coordonné par le Collège EOSC-France (depuis 02/2022) : représentants des organisations françaises\* membres de l'association EOSC + ministère
- Collège EOSC-France fournit des conseils et propose des actions au Comité Pilotage Services et Infrastructures Numérique (CoPil-SIN)
- Lien fort entre les communautés et les décideurs



Comitologie Services et Infrastructures Numériques (CoSIN)

\*Membres Collège EOSC-France: CEA, CINES, CNRS, France Universités, GENCI, IFREMER, ILL, INRAE, INRIA, INSERM, Observatoire Paris, RENATER, Soleil, Université de Bordeaux, Université de Montpellier, Université Paris Cité, Université Paris-Saclay, Université Strasbourg, CGE, Couperin, ANR, IRD, Sorbonne Université, Udice, Université de Univ. Lorraine, Nantes Université, Université Grenoble Alpes, Université Paris 1 Panthéon-Sorbonne, MESR/DGRI