

# Horizon Europe Open Science requirements in practice

Jonathan England

## USEFUL LINKS

Horizon Europe  
reference  
documents

Program Guide  
of Horizon  
Europe

Annotated Model  
Grant Agreement  
(AGA)

ERC Managing  
your project >  
Open Science

EC Participant  
Portal –  
'Continuous  
reporting' guide

Information  
package for  
MSCA

Financial Guide  
(6.4) for MSCA

Data  
Management  
Plan template

Open Research  
Europe

EU Open  
Research  
Repository

EOSC EU Node

EOSC EU Node  
Learning Center

Q&A from  
previous  
webinars

'A Quick Guide to  
Horizon Europe  
Open Access  
requirements'

'A Quick Guide to  
Horizon Europe  
Research Data  
requirements'

# Open Science

“Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process”

European Commission

Open Access to  
publications

Responsible  
management of  
data (FAIR  
principles)

Open access to  
data ‘as open as  
possible, as  
closed as  
necessary’

Information  
about outputs /  
tools /  
instruments to  
validate/re-use  
results and data

Digital /physical  
access of results  
to validate the  
conclusions

# Requirements for publications



# Requirements

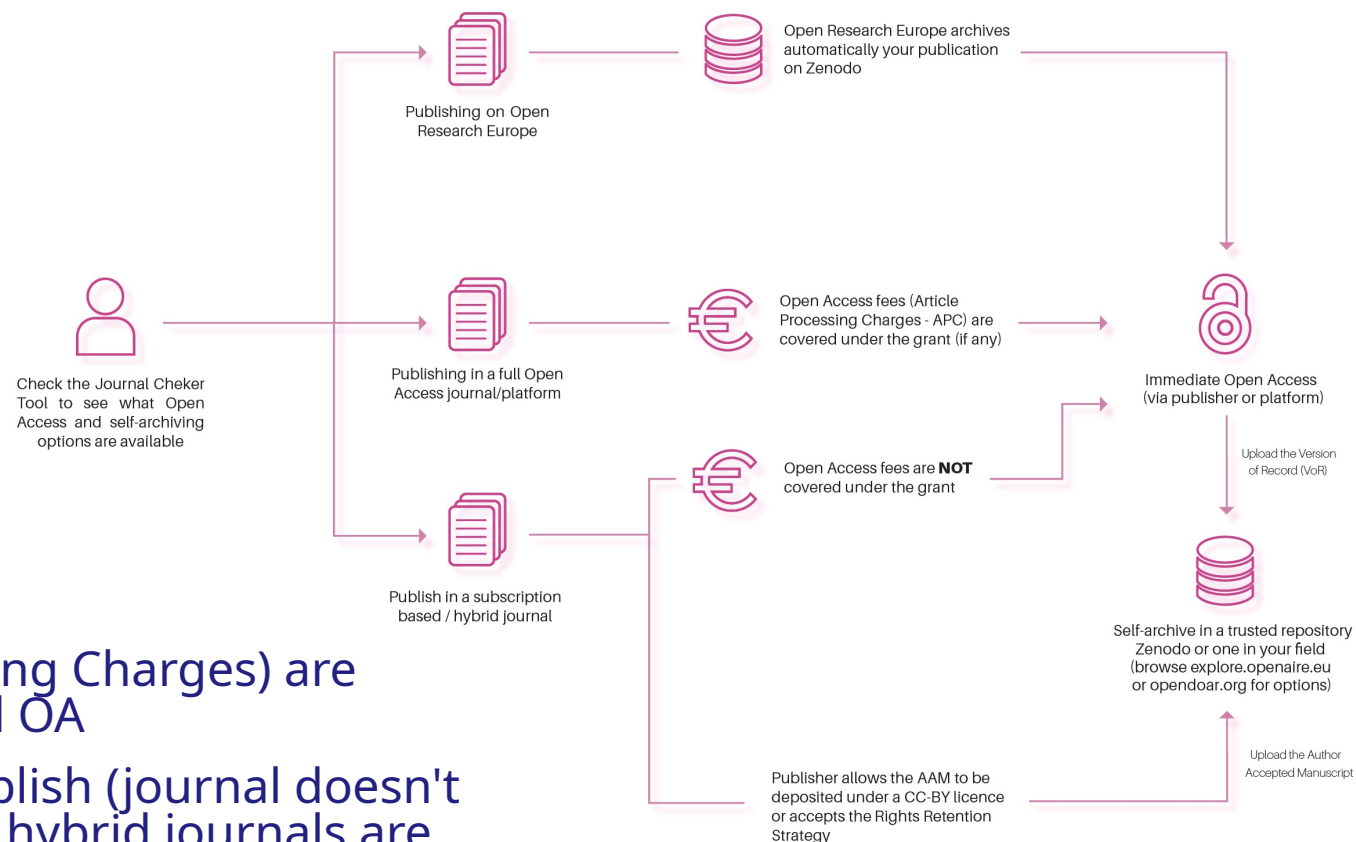
- Peer-reviewed manuscript (AAM or VoR) in a metadata-ready **trusted repository**
- **No embargo period** (i.e. immediate OA)
- Authors retain their rights by having the AAM and/or the VoR under a **CC-BY 4.0** licence
- Information about research outputs or tools/instruments needed to validate the conclusions of the publication
- Add the acronym/code of the project within

## Specificities

- Publication fees (Article Processing Charges) are **reimbursable** if the venue is full OA
- **No restrictions** on where to publish (journal doesn't have to be full OA), but APCs for hybrid journals are not covered
- CC BY-NC/BY-ND/BY-NC-ND allowed for long-text formats (e.g. monographs; a chapter in an edited book is not eligible)

5

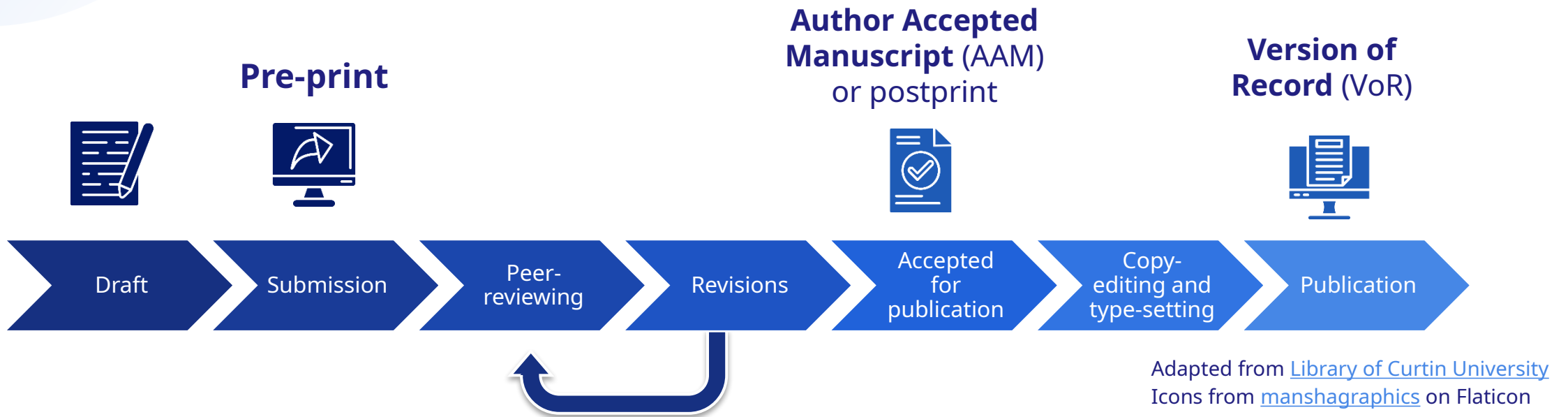
# OVERVIEW



# Mandate

- Applies **only to peer-reviewed publications** (but recommended for all your work)
- **No restrictions** on where you can publish
- **Deposit the peer-reviewed version** of your manuscript (AAM or VoR) in a 'trusted repository'
- Provide **immediate Open Access** upon publication (i.e. no embargo period)
- Ensure you retain your rights on at least one of the peer-reviewed version of your manuscript (AAM, VoR) under a **CC-BY 4.0 licence**
- Provide information about research outputs or tools/instruments needed to validate the conclusions of the publication
- Acknowledge the EU (Art. 17 AGA); add the acronym/code/DOI of the project

# Author Accepted Manuscript (AAM) vs Version of Record (VoR)



# Self-archiving

- **Open repository** = digital platform that provides free, immediate and permanent access to research results for anyone to use, download and distribute
- Social networking sites (e.g. ResearchGate, Academia), the publisher's website, your profile page on the institution's website, etc. are **NOT repositories**
- **Self-archiving** = you deposit a version of your work in an open repository
- **Regardless of where you publish** (even fully Open Access or hybrid journal), always deposit the AAM or VoR in a repository.
- It is about **where you make it available** in Open Access, NOT where you publish



Definition from Wikipedia, "[Open-access repository](#)", CC BY-SA 4.0

# Trusted repositories

- Three categories of trusted repositories:
  - Certified repositories
  - **Discipline and domain-specific** repositories commonly used and endorsed by the international research communities
  - **General-purpose / institutional** repositories that meet a set of essential criteria (metadata)
- Compliance challenge:
  - Another mandatory requirement: metadata should be in line with the FAIR principles and under a CC0 licence
  - Not all ‘trusted repositories’ are fully ready for Horizon Europe compliance

*Search for a repository on:*

**OpenAIRE** | **EXPLORE**

<https://explore.openaire.eu/>

*For your publications:*

**OpenDOAR**

<https://opendoar.ac.uk/>

*For everything:*

**zenodo**

EU Open Research Repository

<https://zenodo.org/communities/eu/>



# Trusted repositories

- Currently only 5 trusted repositories are 'ready' for compliance (HAL, AUSSDA, <intR><sup>2</sup>Dok, DANS Data Station Archaeology, Zenodo)
- Check if the repository is 'trusted' and has the essential metadata criteria (Annex 1). But many are "close to essential" and currently making changes, so check even if it is not in the list yet:

<https://doi.org/10.5281/zenodo.13919642>

## In doubt **deposit on Zenodo\***:

- Fully compliant with repository requirements
- Free and easy to use (also used by the EC to deposit Open Research Europe publications)

+

Subject-specific and/or institutional repository

- Improves visibility and discoverability
- Better community engagement and networking

\*EU Open Research Repository in Zenodo

## Basic information

## Digital Object Identifier \*

Do you already have a DOI for this upload? ☐ Yes, I already have one ☒ No, I need one

Copy/paste your existing

Get a DOI now!

Reserve a DOI by pressing the button (so it can be included in files prior to upload). The DOI is registered when your upload is published.

## Resource type \*

Publication

## Title \*

My publication's title

## Related works

Specify identifiers of related works. Supported identifiers include DOI, Handle, ARK, PURL, ISSN, ISBN, PubMed ID, PubMed Central ID, ADS Bibliographic Code, arXiv, Life Science Identifiers (LSID), EAN-13, ISTC, URNs, and URLs.

## Related works

Relation \*

Identifier \*

Scheme \*

Resource type \*

Is version of ✕

10.5281/zenodo.17534

DOI ✕

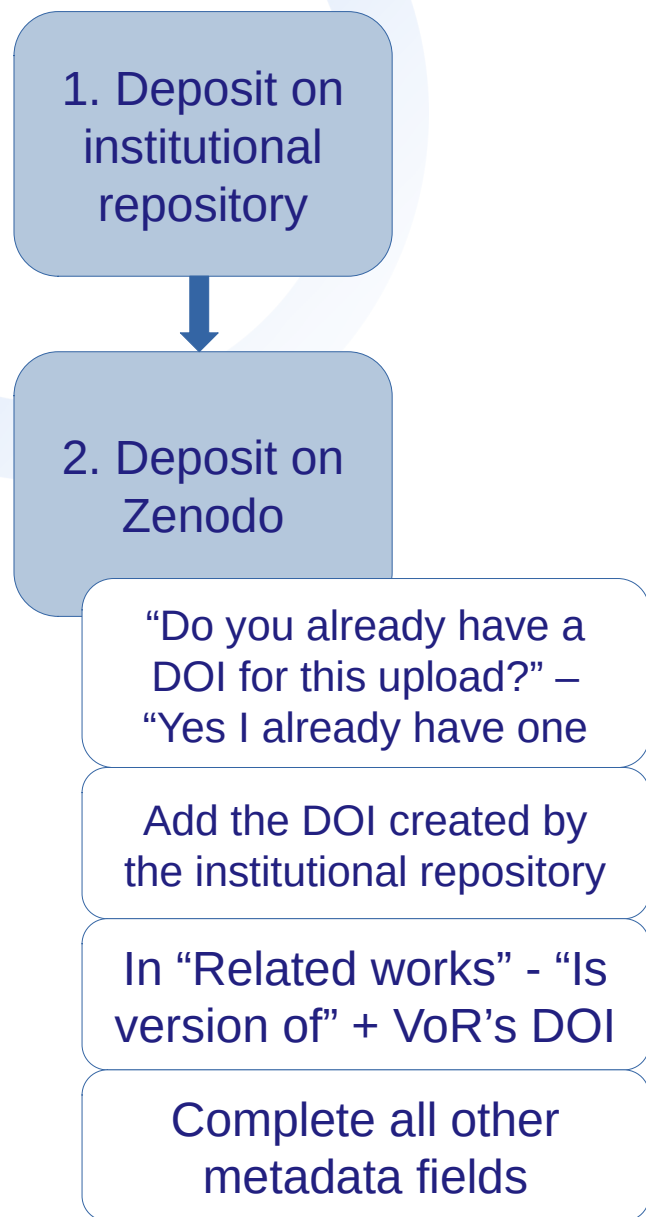
Publication ✕



Add related work

## IF YOU UPLOAD THE AAM:

- The AAM and VoR are considered different documents and you should **get a new DOI** – select “No, I need one”.
- Link back to the VoR by adding its DOI in the “Related works” section: – select **“Is version of”**, fill in the DOI (removing the ‘doi.org’ part), and select **“DOI”** as the ‘Scheme’.



**If you upload the AAM on another repository first, and then on Zenodo to comply with the policy:**

1. Deposit on the subject-specific / institutional repository to **get attributed a DOI**;

2. **Deposit on Zenodo** and under the section “Do you already have a DOI for this upload?” select “Yes, I already have one” and add the DOI (or other identifier) that was created by your repository;

3. **Fill-in all the fields as much as possible** on Zenodo (which your other repository might be missing). Don’t forget to link back to the VoR by adding its DOI in the “Related works” section – select “**Is version of**”, fill in the DOI of the publisher (i.e. VoR)

Basic information ▼

**Digital Object Identifier \***

Do you already have a DOI for this upload? ☒ Yes, I already have one ☐ No, I need one

10.5281/zenodo.17534323

A DOI allows your upload to be easily and unambiguously cited. Example: 10.1234/foo.bar

**Resource type \***

Publication ▼

**Title \***

My publication's title

## IF YOU UPLOAD THE VoR:

- **Don't create a new DOI.** The VoR on Zenodo is to future-proof your work in case it isn't available on the publisher's website anymore – when asked “Do you already have a DOI for this upload?”, **select “Yes, I already have one”**, and fill-in the field with the publisher's DOI.
- Don't link back to the publisher's DOI in the “Related works” section.

# Licence

- AAM and/or VoR has to be under a Creative Commons Attribution licence (CC BY 4.0)
- Different ways to achieve this:
  - **Publish in a full OA journal:** VoR under CC BY 4.0
  - **Pay to publish in a hybrid venue:** pay an OA fee to publish in a subscription-based journal (when publishers offer different licences, make sure to select CC BY 4.0)
  - Publish in a subscription-based journal (you don't pay an OA fee) and add the '**Rights Retention Statement**'
- With a CC BY licence you **own the rights** to that version of your work, so you can deposit it freely on any repository, website, etc.
- The AAM and VoR might be available under different licences, e.g. signing a Copyright Transfer Agreement on the VoR but retaining your rights (under a CC-BY licence) on the AAM, allowing you to share it openly
- CC BY-NC/BY-ND/BY-NC-ND licence **allowed for long-text formats** (e.g. monographs); **a chapter in an edited book is not eligible**



# Creative Commons

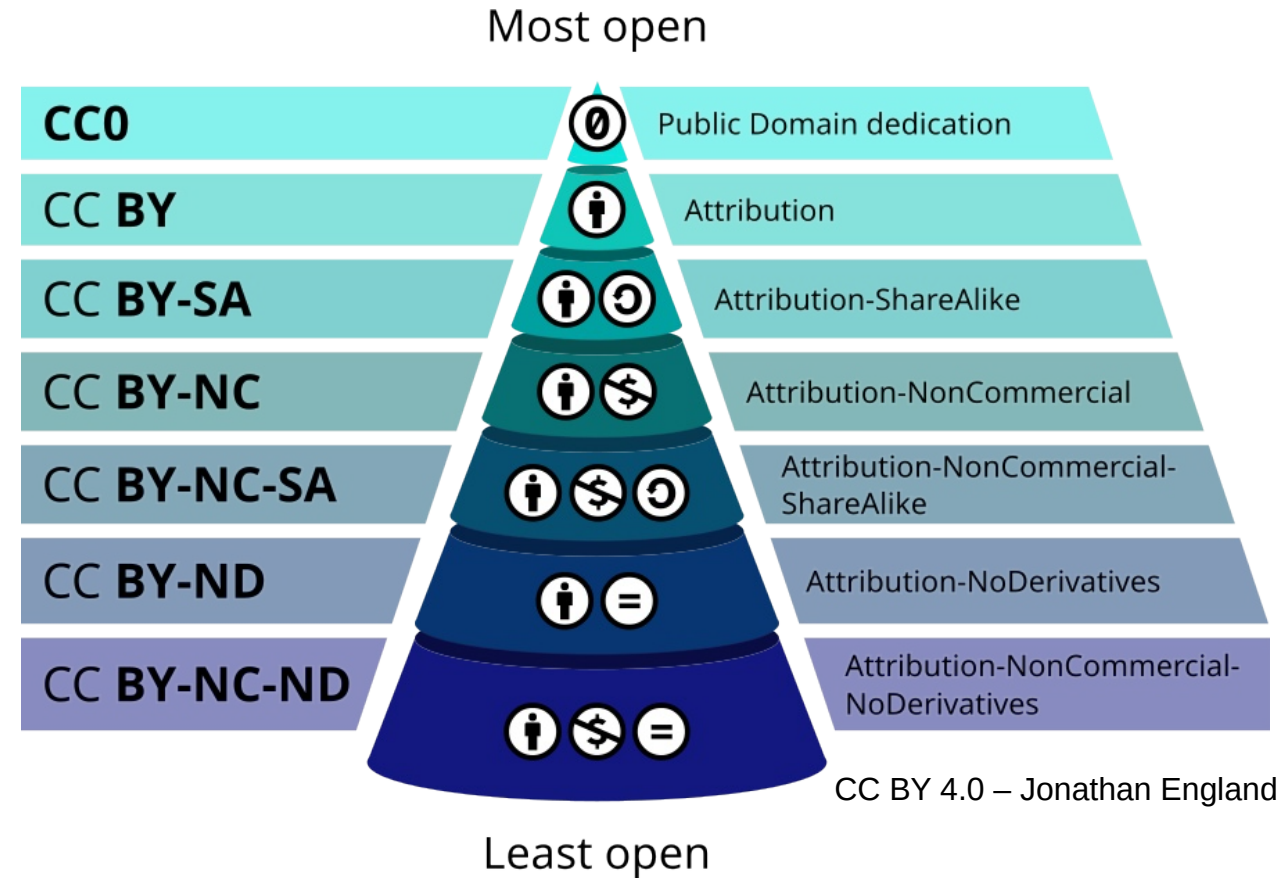
- Removes ambiguity over what others can and cannot do with your work
- You keep (certain) rights, but you grant certain reuses without them needing to contact you
- Universally recognisable and juridically sound (you can still claim copyright infringements)




You can share, adapt for any purpose, no attribution is required (it is similar to 'Public Domain' but is an actual licence)



You can share, adapt for any purpose as long as you **credit the author**



# Commercial exploitation


- **Publication's** licence  $\neq$  licence applied to the **results** themselves.
- The requirement for the CC BY licence **concerns your publication**, the written words and figures describing your research and its results.
- A different licence can be applied to your data, model, software, results, patent, etc.
-  **PATENTS** - the 'novelty' aspect is required to file a patent. You must not have shared it in any way (e.g. conference talk, publication, data repository) before the patent is established. Make sure to establish a clear timeline so you do not hinder your commercialisation plan by mistake.

# Rights Retention Statement

This work was funded by the European Union under the Horizon Europe grant [grant number]. As set out in the Grant Agreement, beneficiaries must ensure that at the latest at the time of publication, open access is provided via a trusted repository to the published version or the final peer-reviewed manuscript accepted for publication under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights. CC BY-NC, CC BY-ND, CC BY-NC-ND or equivalent licenses could be applied to long-text formats.

# Check the journal's eligibility

English Français


 JOURNAL CHECKER TOOL


Which publishing options are supported by your funder's OA policy?

JOURNAL MY FUNDER MY INSTITUTION

By ISSN or title + European Comm + By ROR or name =

☐ No affiliation

 **Plan S**  
Making full & immediate Open Access a reality

 SEND US FEEDBACK

Yes, the journal policy allows compliance with the Horizon Europe open access mandate



**OPEN ACCESS PUBLISHING IN THIS JOURNAL ALLOWS COMPLIANCE WITH THE HORIZON EUROPE OPEN ACCESS MANDATE PROVIDED YOU HAVE ALTERNATIVE FUNDS**

Remember to select a **CC BY** licence (or equivalent).

Remember to also ensure, at the time of publication, the **immediate deposition** and open access of the Version of Record in a **trusted repository** under a CC BY (or equivalent) licence, as required by Horizon Europe.

Publishing fees, including Article Processing Charges, in Hybrid journals are **not eligible** costs under Horizon Europe and you must locate alternative funds. [More Information](#)

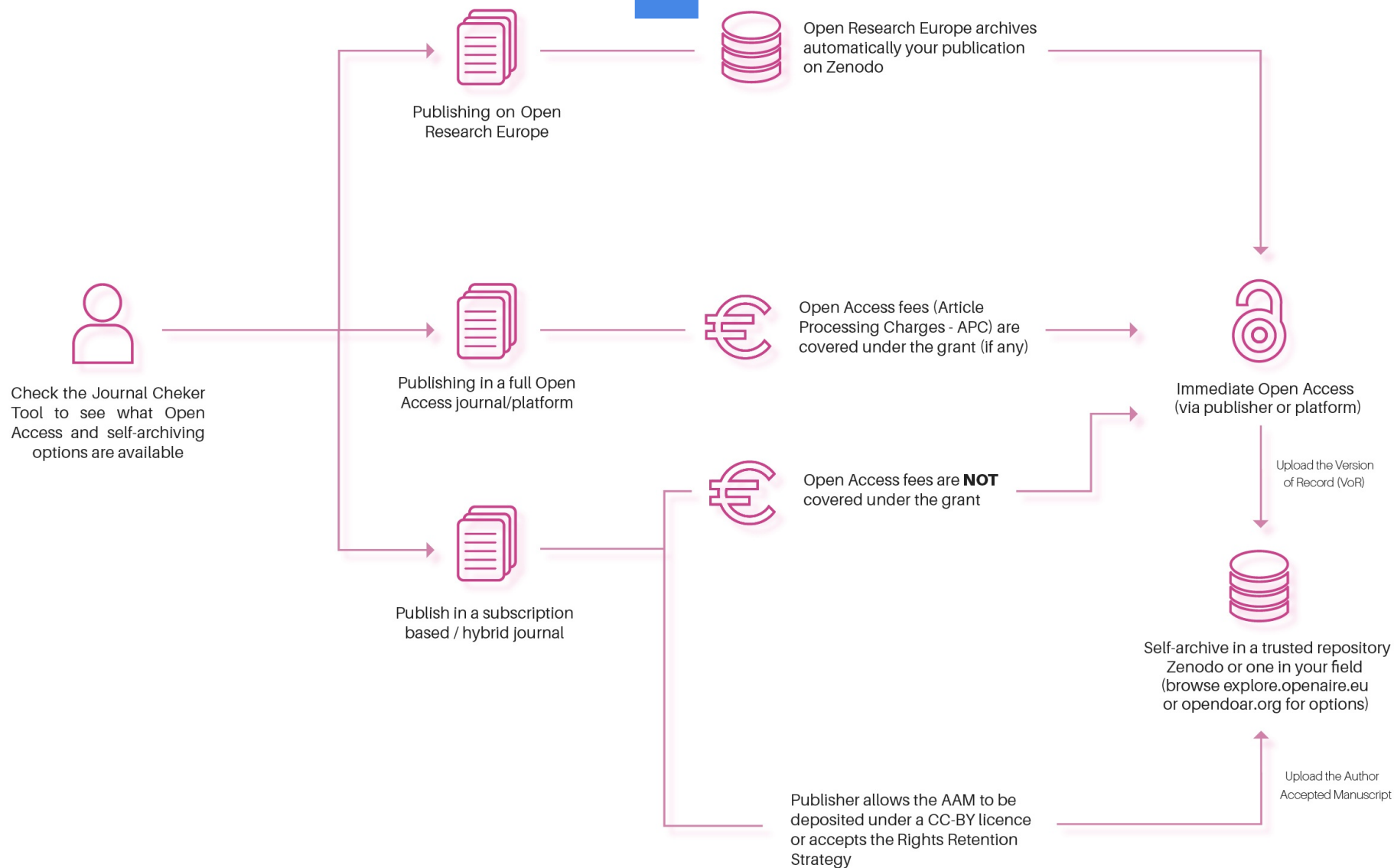
<https://journalcheckertool.org/>

# In practice

- **No specific rule of where to put the RRS.** You can:
  - add it in the first page of the article;
  - add it in the acknowledgement section;
  - add it in the message to the editor accompanying your article (cover letter).
- **⚠ Keep the statement from the initial submission up to the final version.**
- Keep a copy of the successive versions of your manuscript that have the licence notice, and archive any discussions with the publisher to ensure you can prove you retained your rights during the whole process.
- Go the extra step:
  - add the text "CC BY 4.0" or "Distributed under a Creative Commons Attribution 4.0 International licence", and
  - add the CC BY logo to your manuscript, on all versions from submission to the final peer-reviewed version.

*recommendations based on "Implementing the rights retention strategy for scientific publications - [Guide for researchers](#)", French Ministry of Higher Education and Research, 2022*





# Budget

- Publication fees (Article Processing Charges) can be **covered by the grant if the venue is full Open Access** (also known as 'Gold' OA)
- **Hybrid venues aren't eligible:** you will have to find another way to cover those costs (except for MSCA)
  - no matter whether they are considered "transformative journals" committed to transition to a fully open access journal, or covered by "transformative agreements" between institutions and publishers
- Any printing fees (for monographs, books or articles) can't be covered by the grant either
- **IEEE's new "Repository License Fee" isn't eligible**, as the venue is still considered hybrid.



# Extra information

- Research outputs, tools and instruments;  
e.g. data, software, algorithms, protocols, models, workflows, electronic notebooks and others.
- Information should include a detailed description of the research output/tool/instrument, how to access it, any dependencies on commercial products, potential version/type, potential parameters, etc.
- Best practice: open access is provided to these research outputs, tools and instruments — unless legitimate interests or constraints apply.

```
ir) || !is_readable($temp_dir)) {  
  
('sys_get_temp_dir')) { // sys_get  
e inaccessible temp dir, e.g. with  
);  
  
// see https://github.com/JamesHe  
edir');  
  
d).org/httpdocs/:/tmp/"  
rray('/', '\\'), DIRECTORY_SEPARAT  
rray('/', '\\'), DIRECTORY_SEPARAT  
= DIRECTORY_SEPARATOR) {  
PARATOR;  
  
_SEPARATOR, $open_basedir);  
edir) {  
) != DIRECTORY_SEPARATOR) {  
_SEPARATOR;
```

# Another option





# Open Research Europe publishing platform

Slides adapted from:

Durowoju, G. (2022) [10.5281/zenodo.7266373](https://zenodo.org/record/7266373);

England & Malaguarnera (2022) [10.5281/zenodo.7324363](https://zenodo.org/record/7324363);

England & Tsoukala (2023) [10.5281/zenodo.10125224](https://zenodo.org/record/10125224);

England, Leo & Dolinar (2025) [10.5281/zenodo.14999515](https://zenodo.org/record/14999515)

all under CC-BY 4.0



**Victoria Tsoukala**

Policy Officer-Open Science, European  
Commission, DG RESEARCH

# Overview

- Diamond Open Access publishing platform for Horizon 2020 and Horizon Europe beneficiaries (even partially funded) – **NOT a repository**
- **No costs to authors or readers** (i.e. no APCs) - costs are met directly by the European Commission
- **Optional** service, available during and after the end of the project
- Post-publication **Open peer-review** - name of the reviewers, the revisions and the comments from the authors after revisions, are openly available (all under a CC BY licence)
- Immediate publication – publish first, then the review takes place
- **Automatic compliance** with the OA requirements - no need to self-archive as it will be archived in Zenodo once passed peer-review
- High scientific standards and policies - Scientific Advisory Board; policies and guidelines (e.g. underlying data availability, analysis of methods)



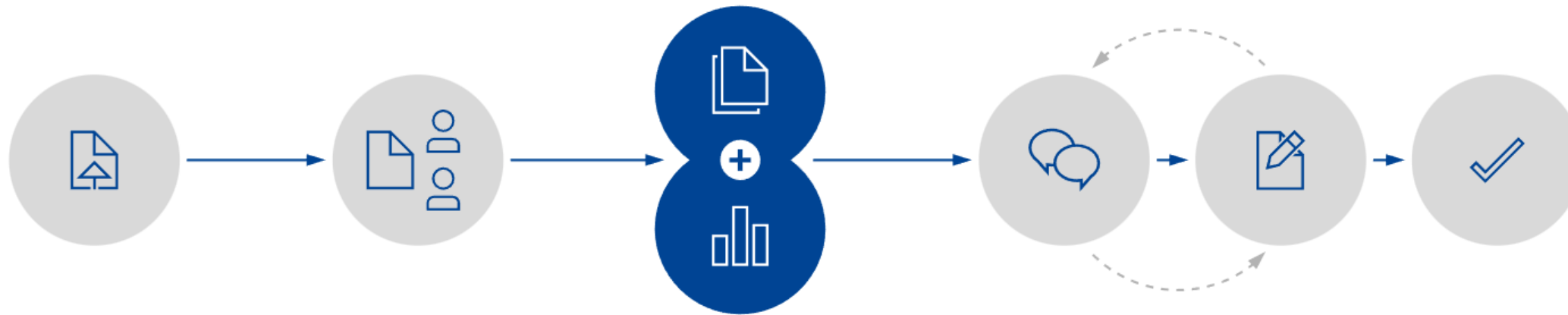
# ORE in numbers

By the end of October 2025:

- > 1100 articles published
- > 700 articles indexed (completed successful peer-reviews)
- > 1500 published authors; > 1700 submitted authors
- > 2000 reviewers
- > 850 unique institutions published, > 950 unique submitting institutions

# Publishing process

Indexed in  
important indexers  
and national lists:



## Article Submission

Submit research via a single-page submission system. See the [Article Guidelines](#) for information about submitting different article types. Track your submission via [My Account](#).

## Prepublication Checks

Our in house team of professional editors carries out comprehensive prepublication checks to ensure that all policies and ethical guidelines are adhered to. [Find out more](#) about these prepublication checks and what is required.

## Publication & Data Deposition

Once the article has passed the prepublication checks, a fully typeset version is published with a DOI enabling immediate viewing and citation as well as indexation in Google Scholar. Once the article is published it cannot be sent to another journal for review and publication.

## Open Peer Review & Article Revision

Expert reviewers are selected and invited, and their reviews and names are published alongside the article, together with the authors' responses and comments from registered users.

## Send to Indexers & Repositories

Authors are encouraged to publish revised versions of their article. All versions of an article are linked and independently citable. Articles that pass peer review are indexed in external databases such as PubMed, Scopus, and Google Scholar.

Scopus<sup>®</sup>

PubMed

IET Inspec

OpenAlex

ERIH PLUS  
EUROPEAN REFERENCE INDEX FOR THE  
HUMANITIES AND SOCIAL SCIENCES

Dimensions

TOP FACTOR

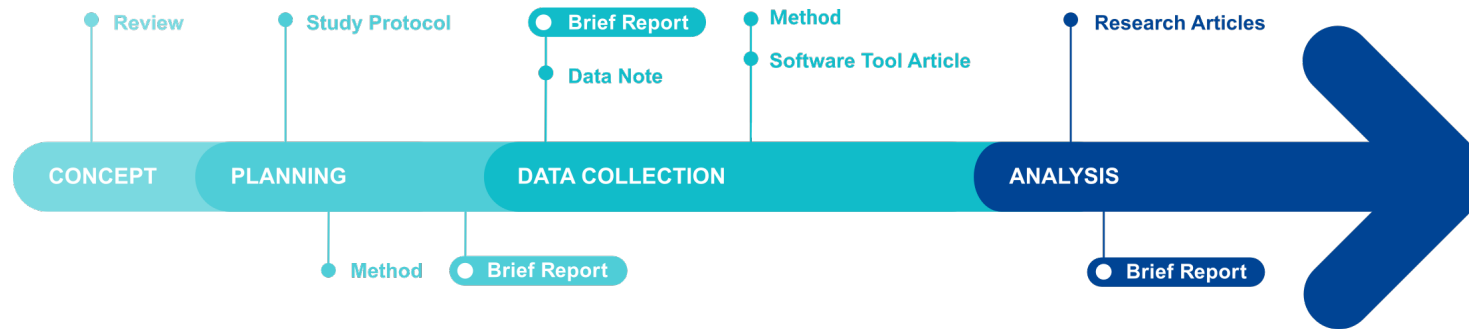
DOAJ  
DIRECTORY OF  
OPEN ACCESS  
JOURNALS

Reaxys<sup>®</sup>

Google Scholar

zenodo

# Publishing throughout the research process



Open Research Europe

ARTICLE TYPES by subject

	Natural sciences	Engineering and technology	Medical and health sciences	Agricultural and veterinary sciences	Social sciences	Humanities and the arts
Case Study	•	•	•	•	•	•
Research Article	•	•	•	•	•	•
Brief Report	•	•	•	•	•	•
Data Note	•	•	•	•	•	•
Method Article	•	•	•	•	•	•
Open Letter	•	•	•	•	•	•
Software Tool Article	•	•	•	•	•	•
Review	•	•	•	•	•	•
Case Report	•	•	•	•		
Registered Report	•	•	•	•	•	
Clinical Practice Article	•	•	•	•		
Study Protocol	•	•	•	•	•	
Systematic Review	•	•	•	•	•	
Essay					•	•

European Commission

# Pre-publication checks

## The pre-publication checks

Submissions are **rigorously checked by the in-house editorial team** before being published.



The in-house editorial team does not review the academic/scientific content of the publication. Only the reviewers (selected by the authors) do that.

# Review process

- Reviewers are suggested by article authors, with the editorial team ensuring they meet necessary criteria (e.g. conflicts of interest) or suggesting additional expertise
- An extensive list of questions, which must be answered, guides the review process, appropriate for different domains; there is also a reviewer code of conduct to be followed
- Once all necessary reviews performed, the editorial team checks for process, content, language and correct status, and completes the publishing process





# Open peer-review example

Open Research Europe

## Approval statuses: what do they mean for authors?



**Approved**

The article is of an **appropriate academic standard**. Reviewers may suggest small changes to improve the article or correct minor errors, but these changes will not affect the peer review status.



**Approved with reservations**

The reviewer believes the article has **academic merit but has asked for several small changes** to the article or more significant revisions.



**Not approved**

The article in its current form has **issues that seriously undermine the findings and conclusions**. More serious revisions will be required for the paper to pass peer review. A 'Not approved' status does not equate to rejection - it's possible to improve an article's status from 'Not approved' to 'Approved' upon publication of a new version.

**commenting**

Reviewer provides peer review and status

Approved	✓	NOTE: authors may continue to publish new versions, even once peer review passed
Approved with reservation	?	
Not approved	✗	

✓✓ or ✓??

< > 1-20 of 280 results [Advanced search](#) ▾

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RESEARCH ARTICLE ✓✓✓

**REVISED** [Towards an integrated automatic design process for robot swarms](#) [version 2; peer review: 3 approved]

AUTHORS Darko Bozhinoski, Mauro Birattari

FUNDERS [Horizon 2020 Framework Programme](#) | Wallonia-Brussels Federation | Fonds De La Recherche Scientifique (FNRS)

PEER REVIEWERS Adam Schroeder; Alan Millard; Edmund Hunt and James Ward

LATEST VERSION PUBLISHED 04 Nov 2022

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RESEARCH ARTICLE ✓ ?

**REVISED** [Identifying entrepreneurial discovery processes with weak and strong technology signals: a text mining approach](#) [version 2; peer review: 1 approved, 1 approved with reservations]

AUTHORS Levan Bzhilava, Jari Kaivo-oja, Sohaib S. Hassan, Wolfgang Dieter Gerstlberger

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CASE STUDY AWAITING PEER REVIEW

[Hybrid AC/DC architecture in the CE.D.E.R.-CIEMAT microgrid: demonstration of the TIGON project](#) [version 1; peer review: awaiting peer review]


AUTHORS Paula Peña-Carro, Oscar Izquierdo-Monge

# Open peer-review example

**Reviewer Report** 2 Views

? **Approved with reservations**

22 Jun 2022

**Gerd Maack** , German Environment Agency (UBA), Dessau-Roßlau, Germany

[Cite this Report](#)

[Responses](#) (1)

The data for this manuscript is part of a larger project and utilize the unique Norwegian Wholesale Statistic database.

However, the text is quite difficult to read, as it misses an overall red line, especially for readers not involved in the project and those who did not read the project report.

One example of this is the data evaluation. For me, it is not clear why the author chose the data and publications they compared the results of this project to. Grung *et al.* (2005) and the Felleskatalogen data are very likely not known to anyone outside of Norway. Here a better explanation would have been needed.

Finally, all the effort of building the database and extracting the data should end in using the database and producing results. The

## AUTHOR RESPONSE 15 SEPTEMBER 2022

### Sam Welch

Thank you for your quick and comprehensive feedback on our paper. I've revised the paper in response to a number of your suggestions, and I'll attempt to respond to them all below. **The data for this manuscript is part of a larger project and utilize the unique Norwegian Wholesale Statistic database.**

**However, the text is quite difficult to read, as it misses an overall red line, especially for readers not involved in the project and those who did not read the project report.** I've rewritten part of the abstract and introduction, and I hope our intentions – to calculate PECs from Norwegian drug sales, and publish them – are clearer now.

**One example of this is the data evaluation. For me, it is not clear why the author chose the data and publications they compared the results of this project to. Grung *et al.* (2005) and the Felleskatalogen data are very likely not known to anyone outside of Norway. Here a better explanation would have been needed.** Pharmaceuticals sales data is not generally publicly available, in Norway or elsewhere, and both predicted and measured environmental concentration data for Norway are similarly scarce, compared with better-studied nations such as



# Research communities

Gradually developing researcher-led **community gateways and collections** in specific fields

## Community Gateways

Gateways

Community Gateways

Collections

Community Gateways are dedicated hubs within Open Research Europe to bring together all content related to a specific area of research. They can be tracked to trigger email alerts whenever there is new research published within the Community Gateways of interest.



### Agriculture, Land and Farm Management

The Agricultural, Land and Farm Management Community Gateway is the home for research ensuring the correct use and management of land for agricultural functions and interests, and is led by [Dr. Olivier Le Gall](#).



### Analytical Chemistry

Analytical chemistry involves the separation, identification and quantification of the composition and structure of matter in both natural and artificial substances. This Community Gateway is led by [Dr. Imad El Haddad](#).



### Animal and Dairy Science

The Animal and Dairy Science community gateway is focused on publishing both industry- and lab-based research relating to animal and dairy produce, and is led by [Dr. Emer Kennedy](#).



### Arts

This multidisciplinary gateway showcases research on all aspects of the Arts, a field encompassing an immense variety of human practices with creative expression and imagination at their core. This Community Gateway is led by [Dr Ruth Sargent Noyes](#).

## Collections

Gateways

Community Gateways

Collections

Collections are compilations of content relating to a specific Horizon 2020 or Horizon Europe-funded community, project or conference.



### Adaptation to Climate Change

This collection draws on the interdisciplinary nature of climate research in the Horizon funding programmes, looking at both current climatic conditions as well as the lessons that can be learned from climatic changes in the past. It is led by [Dr. Jana Voříšková](#).



### Additive Manufacturing

Additive Manufacturing refers to technologies that produce three-dimensional objects one superfine layer at a time. It has many applications across Engineering. Examples include the creation of weight-saving, complex geometric designs for Aerospace Engineering, the rapid prototyping in Automotive Engineering, and creating custom on-demand surgical implants in Medical Engineering.



### Advances in Natural Language Generation

The aim of this collection is to bring together recent works related to developments and improvements within the field of language generation. It has been developed by the Multi3Generation COST Action network (CA18231) but is open to submissions from Horizon projects. It is led by [Dr Anabela Barreiro](#), [Dr Elena Lloret Pastor](#), and [Professor Max Silberstein](#).





### Advances in Optics

Optics is concerned with studying and understanding the behavior and properties of light, specifically in relation to its interaction with different media. This collection focuses on the latest developments within this field of physical sciences.

## Submit Your Manuscript

Subject area Natural sciences

Your ORCID iD  <https://orcid.org/0000-0001-6715-8628> 

### About the Article

#### Article Type \*

*Guidance about choosing an article type.*

- |  |   |   |
|--|---|---|
| <input type="radio"/> Research Article | <input type="radio"/> Case Study                | <input type="radio"/> Study Protocol    |
| <input type="radio"/> Brief Report     | <input type="radio"/> Clinical Practice Article | <input type="radio"/> Review            |
| <input type="radio"/> Data Note        | <input type="radio"/> Software Tool Article     | <input type="radio"/> Systematic Review |
| <input type="radio"/> Case Report      | <input type="radio"/> Method Article            | <input type="radio"/> Open Letter       |

#### Article Title \*

*I*
 $x_2$ 
 $x^2$

#### Abstract \*

Words: 0/300

**B**
*I*
U
 $x_2$ 
 $x^2$ 
 $I_x$ 
 $\frac{1}{2}$ 
 $\frac{3}{4}$ 
 $\infty$ 
 $\int$

Follow  
**@OpenResearch\_EU** on  
social media

Scan to register to **ORE  
Newsletter** (4/year)



# Requirements for research data

# Mandate

- Must manage the digital research data in line with the **FAIR principles** (Findable, Accessible, Interoperable, Reusable).
- **Data Management Plan (DMP)** is required by M6; updated mid-project and at end of project.
- **Deposit (meta)data as soon as possible** after production / generation or after processing and quality controls.
- Deposit data in a **trusted repository** and make them **open as soon as possible** (deadlines set in DMP), following the “as open as possible, as closed as necessary” (open by default) principles.
- You should deposit all of the (meta)data generated / collected during the project, **whether it was used in a publication or not** (including relevant ‘raw’ data).



Image by [Scriberia](#) for [The Turing Way Community](#) under CC-BY 4.0



# FAIR principles

## Findable

- Persistent identifier (e.g. DOI)
- Rich metadata
- Searchable and discoverable online

## Interoperable

- Lossless, open and/or standardised file formats (e.g. using a CSV file format instead of the proprietary XLSX format).
- Use shared definitions and standardised terms within your specific domain.

<https://www.openaire.eu/how-to-make-your-data-fair>

## Accessible

- Deposited on a trusted repository (e.g. Zenodo)
- Data can be restricted and still FAIR – “as open as possible, as closed as necessary”

## Reusable

- Well documented (e.g. README files), including provenance and tools/instruments needed to reproduce the results
- Clear licence (e.g. CC BY 4.0, CC0)



# Data Management Plan

- **Formal ‘living’ document** that specifies how research data will be handled both during and after a research project.
- It identifies key actions and strategies to ensure that research data are of a high quality, safe, sustainable and – where possible – accessible and reusable.
- There are **no absolute right answers**
- But be clear, specific and detailed... and justify decisions
- The DMP is to prove to the funder that you’ve reflected on what to do and the approach seems reasonable
- And that your data is “**As open as possible, as closed as necessary**” (FAIR principles)



Slide adapted from Venkataraman, S. (2018) under CC-BY 4.0  
<http://doi.org/10.5281/zenodo.1489929>

# ARGOS – write your DMP



## Free and open source

- **Free for researchers**, open source, configurable and extensible tool for planning Research Data Management activities according to OA & FAIR data policies.
- **Has the Horizon Europe DMP template**
- Discoverable through OpenAIRE EXPLORE
- Accessible: Persistent Identifiers (ORCIDs & DOIs)
- Interoperable: Research Data Alliance DMP Common Standard
- Reusable: Licences
- Versioned (history/provenance)
- Published and preserved in Zenodo
- Enables research communities to create templates (dataset profiles) tailored to domain standards and practices.



<https://argos.openaire.eu/>

Slide adapted from Papadopoulou, E.  
(2022) under CC-BY 4.0



# Specificities

- Data closed if necessary, but **metadata must be FAIR and under CCO** (metadata-ready trusted repositories will automatically share metadata in CCO)
- Open licence, preferentially CC-BY or CC0 licence
- Detailed information about research outputs or tools/instruments needed to re-use or validate the data (e.g. data, software, algorithms, protocols, models, workflows, electronic notebooks)

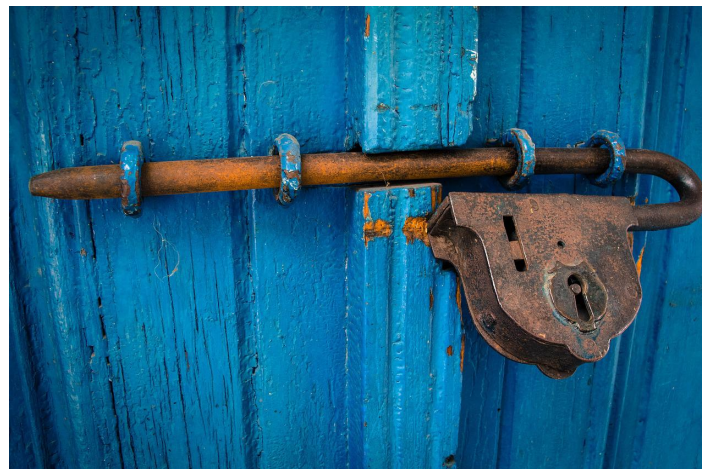


## Examples of metadata

author(s) name,  
author(s) ORCID, DOI,  
licence, language,  
journal, title, etc.

# Valid justification for not opening the data

- Commercially valuable data if it would undermine its exploitation or other results (e.g. endanger trade secrets ('soft' IP)), or make IP protection of results more difficult
- Data protection/privacy rules of sensitive and/or personal data
- Security rules for projects dealing with strategic assets, interests, autonomy or security of the EU



# Exceptions

## Validation of findings

- Restricted or closed data might need to be made available through agreements with relevant confidentiality provisions



## Public emergencies

- Can be triggered by the request of the granting authority
- Immediate OA is extended beyond publications to any research outputs – as soon as feasible and in CC BY or CC0
- DMP provided with the proposal or before grant signature
- In case of conflict of legitimate interests for openness, beneficiaries must grant non-exclusive licences to legal entities that need the research to address the emergency (this provision applies up to 4 years after the end of the action)

# AMNESIA – anonymisation tool



## Why anonymise?

- Anonymised data are outside the scope of GDPR
- Anonymisation provides a statistical guaranty about the risk of information leakage
- It is the most suitable way to give information to third parties, without revealing personal data



User friendly



Works locally, no data transfer risk



Allows users to customize the solution



The only tool to offer anonymization for set-valued data



The only tool to support  $k^m$ -anonymity



Easy to incorporate to third party information systems

Slide adapted from Terrovitis, M. (2023) under CC-BY 4.0

# EU Open Research Repository



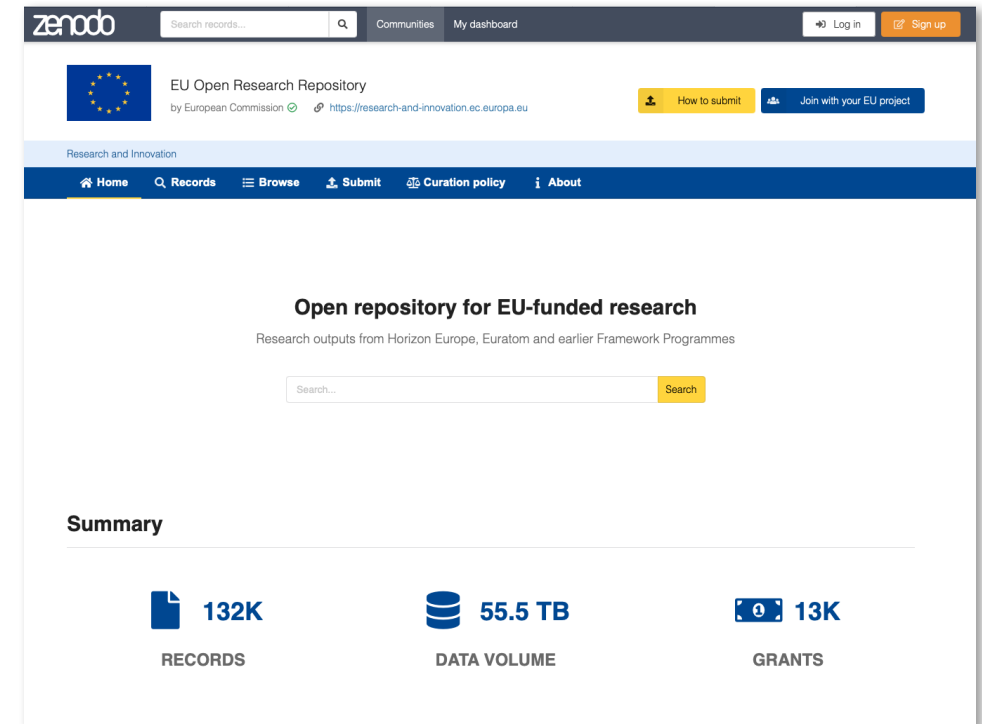
**Lars Holm Nielsen**

Head of Open Science Infrastructure at CERN



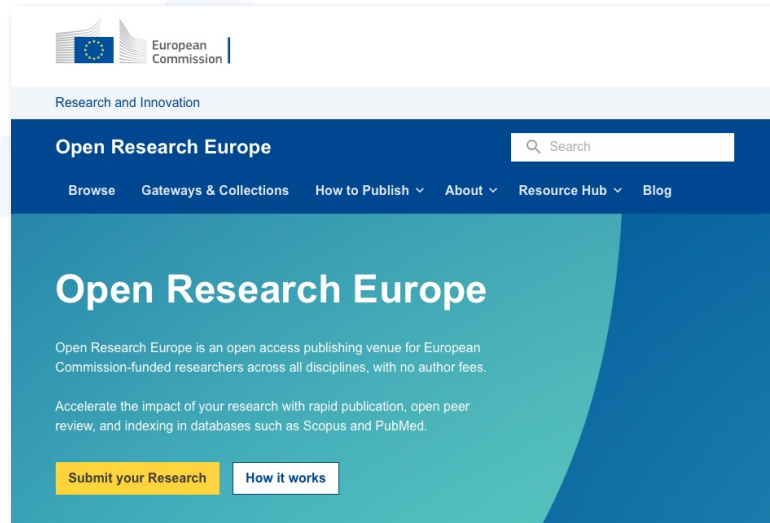
# EU Open Research Repository

- A free to use Zenodo-community for EU-funded research outputs (publications, data, software, presentations, ...).
- Any discipline, any output.
- Managed by CERN on behalf of the European Commission.
- **A repository solution for projects**

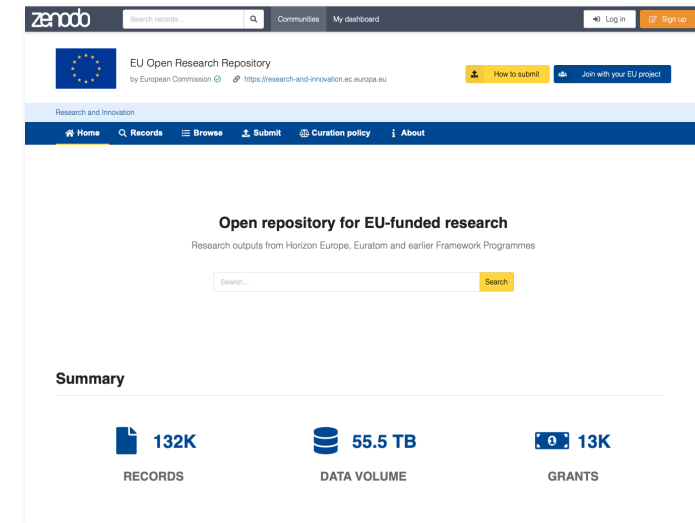


<https://zenodo.org/communities/eu/>

# ORE vs EU Open Research Repository



- Publish **articles**
- Articles are **peer-reviewed**
- An open access **publishing venue**

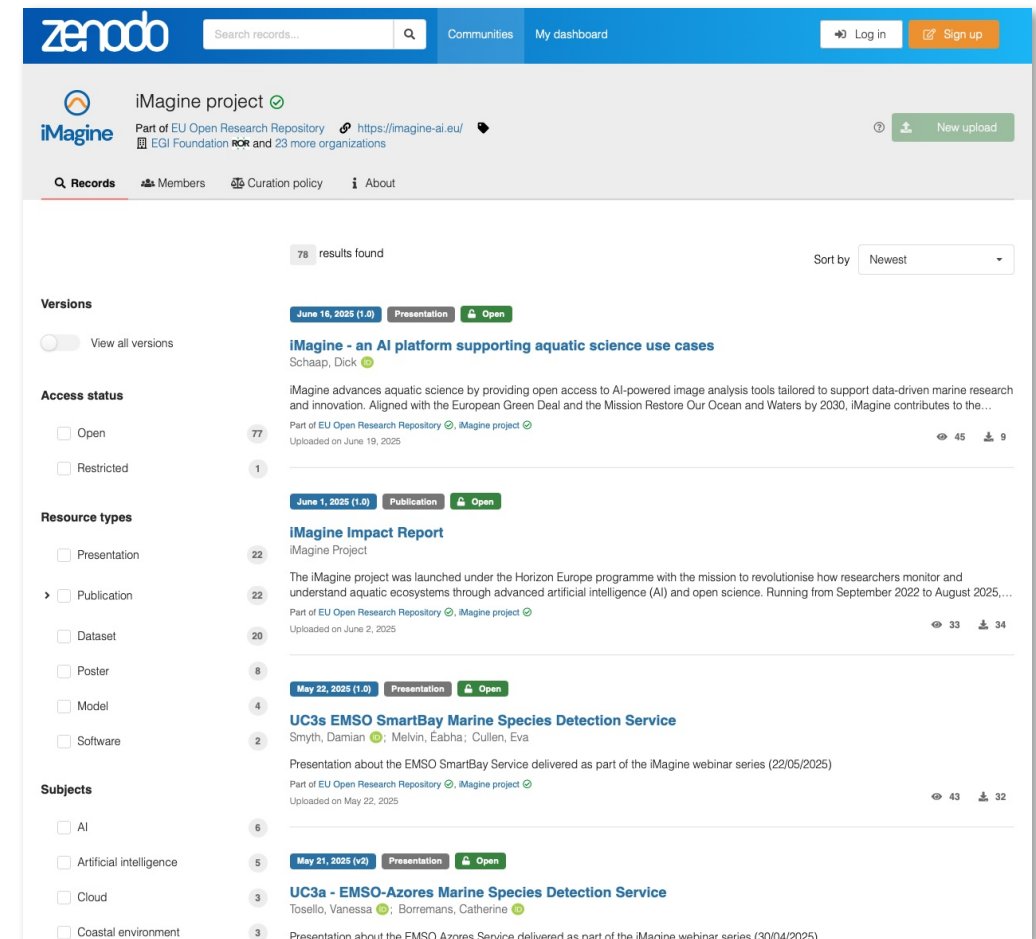


- Publish any research output
- **Curated** but not peer-reviewed
- A trusted **repository**



# EU Project Community

- A Zenodo-community for your EU project
- **Collaborate** across all project partners
- **Compliance** with related open science requirements in grant agreement
- **Integrated** with OpenAIRE for reporting to EC participant portal
- All content is indexed automatically in **EU Open Research Repository**



# Collaborate across institutions

- Login with institutional account (OpenAIRE AAI)
- Invite and manage members
- Review and curate records

The screenshot shows the 'Members' management page in the OpenAIRE interface. The top navigation bar includes links for Records, Requests, Members (active), Settings, Curation policy, and About. On the left, a sidebar shows 'Members' and 'Invitations'. The main content area features a search bar, filters for Role and Visibility, and a table of members.

<input type="checkbox"/>	0 members selected	Member since	Visibility	Role	Invite...
<input type="checkbox"/>	Alex Ioannidis CERN	1 year ago	Hidden	Owner	Remove...
<input type="checkbox"/>	Jose Benito Gonzalez Lopez	1 year ago	Public	Owner	Remove...
<input type="checkbox"/>	Lars Holm Nielsen CERN <span style="background-color: #0056b3; color: white; padding: 2px 5px;">You</span>	2 years ago	Public	Owner	Leave...

3 result(s) found 25 results per page

# Compliance with open science requirements

- Supports you comply with related open science requirements
- FAIR – file format checks for open/scientific formats.

Conversation
Record
✓ Checks

✓ Metadata validation
✓ File formats check

✓ **Journal articles must specify the publishing venue**  
To comply with Horizon Europe's open science requirements, peer-reviewed scientific publications must specify the publishing venue (e.g. journal) it was published in. [Learn more](#)

✓ **All submissions must specify licensing terms**  
To comply with Horizon Europe's open science requirements, a submission must specify the licensing terms. [Learn more](#)

✓ **Journal articles should have a CC-BY license or license with equivalent rights**  
To comply with Horizon Europe's open science requirements, peer-reviewed scientific publications must be available under the latest Creative Commons Attribution International license (CC-BY) or a license with equivalent rights. Please ensure the license you have selected provide the same rights as CC-BY. [Learn more](#)

✓ **Books should have a CC-BY, CC-BY-NC or CC-BY-ND license**  
To comply with Horizon Europe's open science requirements, monographs or other long-text must be available under the latest Creative Commons Attribution International license (CC-BY) or a license with equivalent rights. Monographs and other long-texts may exclude commercial or derivative works (i.e. CC-BY-NC or CC-BY-ND). [Learn more](#)

✓ **Software should have an OSI-approved license**  
To comply with Horizon Europe's open science requirements, software should be available under a OSI-approved license (following the principle as open as possible, as closed as necessary and with exceptions possible). [Learn more](#)

✓ **Submissions (except journal articles, books, or software) should have CC BY license, CC0 dedication or equivalent**  
To comply with Horizon Europe's open science requirements, all submission except journal articles, books and software must be available under the latest available Creative Commons Attribution International license (CC-BY), or Creative Commons Public Domain Dedication (CC0) or a license/dedication with equivalent rights (following the principle as open as possible, as closed as necessary and with exceptions possible). [Learn more](#)

✓ **All creators should have a persistent identifier (e.g. an ORCID)**  
To comply with Horizon Europe's open science requirements, you should provide persistent identifiers for creators (e.g., ORCID, GND, or ISNI). [Learn more](#)

✓ **All contributors should have a persistent identifier (e.g. an ORCID)**  
To comply with Horizon Europe's open science requirements, you should provide persistent identifiers for contributors (e.g., ORCID, GND, or ISNI). [Learn more](#)

# Submitting content

- **Via EU Project Community (preferred)**
  - self-managed
- **Via direct submissions**
  - single and occasional submissions only
  - curated by Zenodo staff
  - takes longer to get approved
- **Via automated harvesting**
  - records already in Zenodo and linked to grant number
  - not fail-proof, some records might not get added

The screenshot displays the Zenodo website, which is the European Open Research Repository. The header includes the Zenodo logo, a search bar, and navigation links for Communities and My dashboard. Below the header, the European Union flag is shown alongside the text "EU Open Research Repository by European Commission" and the URL <https://research-and-innovation.ec.europa.eu>. There are buttons for "How to submit" and "Join with your EU project".

The main navigation bar includes links for Home, Records, Browse, Submit, Requests, Members, Settings, Curation policy, and About. The "Submit your research" section is highlighted, featuring three panels:

- What?**
  - Scope:**
    - Any discipline.
    - Any research output (data, software, posters, presentations, deliverables, ...).
    - For articles please consider using Open Research Europe (see below).
  - Requirements:**
    - Research outputs must have been (co-)funded by Horizon Europe (including ERC and MCSA), as well as earlier Framework Programmes and Euratom.
- Why?**
  - Open science**  
Share and preserve any research output from your EU-funded projects.
  - Compliance**  
EU Open Research Repository ensures compliance with the Horizon Europe grant agreement which requires beneficiaries to deposit their research data in a trusted repository.
  - 200GB**  
You get a higher quota of 200GB for your uploads.
- Submit**
  - Option 1: Submit through your project (preferred)**  
Your EU-funded project may already have a community setup on Zenodo which collects all outputs from your project.  
[Submit via project](#)
  - Option 2: Submit directly**  
For when your EU-funded project does not have a community on Zenodo.  
[Submit directly](#)

At the bottom, a section titled "Which is the right data repository?" provides guidance: "Before submitting research data please consider using discipline-specific repositories when available. Discipline-specific repositories may provide tailored services and curation for your domain. See a list of repositories for specific data types or search for one on [re3data.org](https://re3data.org)."

# Get started

- Eligibility**

Funded by Horizon Europe (MCSA, ERC, H2020, Euratom, ...)

Must be requested by user affiliated with project partner institution.

<https://help.zenodo.org>

## Setup your new EU project community

### Only for EU-funded projects.

To setup a new EU project community, you must be affiliated with an EU-funded project (e.g. Horizon 2020, Horizon Europe, Euratom).

### Institutional email required.

In order for us to verify the request, your Zenodo account must be using an institutional email address, so that we can verify your institutional affiliation. You can change your email address in your [profile settings](#) if that is not the case.

Do you already have an existing community?

☐ Yes ☒ No

**Project \***

Search for a project by name

**Community name \***

**Identifier \***

This is your community's unique identifier. You will be able to access your community through the URL:

<https://zenodo.org/communities/>

# EOSC EU Node



**Maja Dolinar**

OpenAIRE, User Engagement & EOSC Liaison



# What is the EOSC EU Node?

- A platform created by the European Commission enabling Open Science in Europe.
- Provides federated access to research data, services, and computing resources.
- Supports Open Science principles (FAIR data, open access, reproducibility).
- Built and operated by a consortium of research institutions and service providers.
- Supports researchers, citizen scientists, and Horizon Europe projects.



# Who can use EOSC EU Node?

- **Open to all researchers**, not just Horizon Europe projects.
- Accessible for academic institutions, citizen scientists, and public initiatives.
  - Various levels of credits apply!
- Access is free – supported by European Commission funding.
- **Helps projects comply with Open Science and FAIR data requirements.**



Enrich your  
Scientific Endeavours



Enter the Gateway  
to Open Science

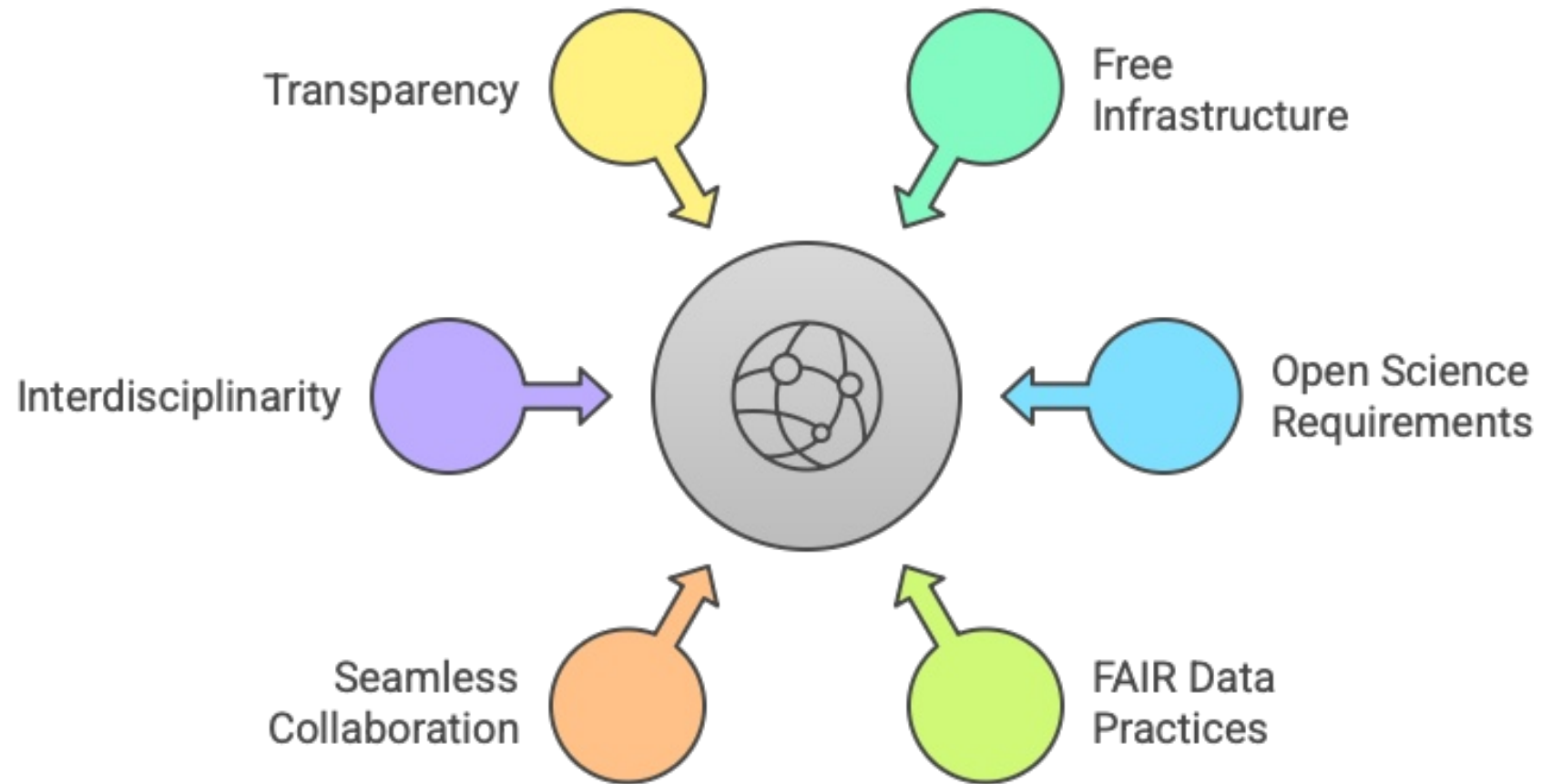


Manage your  
Research Workflows

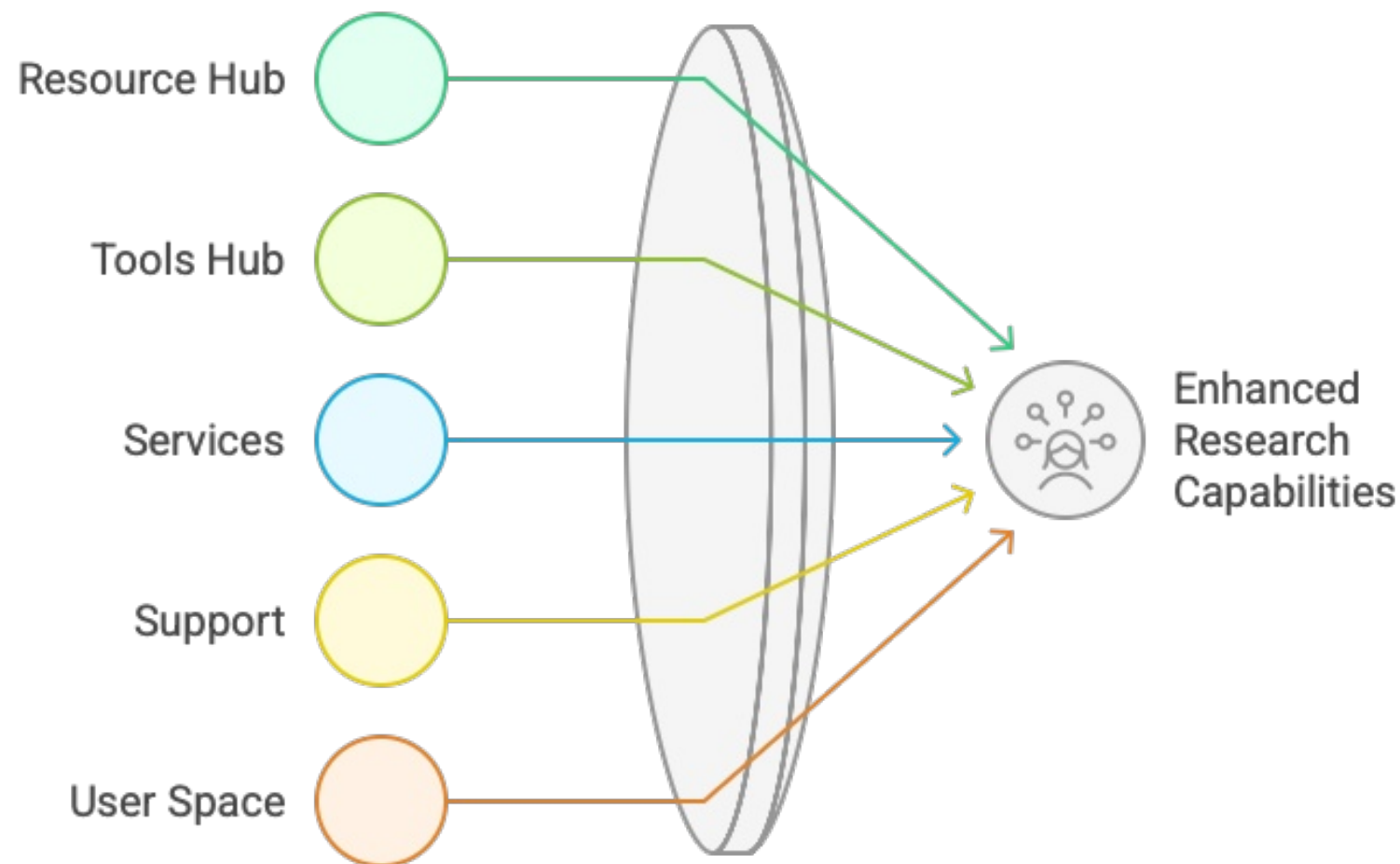


Exchange with  
your Peers

# Why EOSC EU Node for Horizon Europe?



# Empowering Researchers through EOSC EU Node



# Resource Hub

The screenshot shows the European Open Science Cloud - EU Node Resource Hub. At the top, there is the European Commission logo and a 'Log in' button. Below this is a dark blue navigation bar with the title 'European Open Science Cloud - EU Node' and a menu with links: Home, About, Services, Resource Hub (selected), Support, Contributors, News & Events, and User Space. Under the navigation bar, there is a breadcrumb trail 'Home > Resource hub' and an 'Advanced Search' link. A search bar with the placeholder 'Search in all resources' and a 'Search' button is present. Below the search bar is a horizontal menu with categories: All resources (selected), Publications, Data, Software, Other Products, Services, Tools, Training, Data Sources, and Interoperability Guidelines. On the left side, there are filters for 'Access right', 'Scientific domain', and 'Document type'. The main content area shows 'Showing 1 to 20 of 167,544,251 resources' and a 'Relevance' dropdown menu. A resource card is displayed with the title 'INTEROPERABILITY GUIDELINE', the year '2023', and the subtitle 'EOSC IF Interoperability Guideline: Access to content via PID'. The card text describes the importance of Open Science and the need for a standard way to access content behind persistent identifiers. The authors are listed as 'EOSC Future WP3 Working Group on Research product Publishing'.

- Discover ~167M resources
  - OpenAIRE, EC data sources
  - Harvested & indexed
- Resources
  - Publications
  - Data
  - Software
  - Services
  - Data Sources
  - Training
  - Tools

Share and reuse by citing: England, J., Tsoukala, V., Nielsen, L.H. & Dolinar, M. 2025. [10.5281/zenodo.17534323](https://doi.org/10.5281/zenodo.17534323) under CC-BY 4.0



# Available Services

## **File Sync and Share**

Your personal cloud storage for collaborative research.

## **Interactive Notebooks**

A shared space for coding and analysis.

## **Large File Transfer**

Fast and secure file transfers.

## **Virtual Machines**

Scalable cloud computing for reliable and reproducible results.

## **Cloud Container Platform**

Simplified Kubernetes for scalable research.

## **Bulk Data Transfer**

Smooth high-volume data transfers.

# User Space

The screenshot displays the 'User Space' interface for the EOSC EU Node. The top navigation bar includes the European Commission logo, a back arrow, and user information: 'Support', 'Default Personal Project', and 'Maja Dolinar Investigator (AP-B)'. The left sidebar lists navigation options: 'Overview' (selected), 'Resource Hub', 'Tools Hub', and a 'SERVICES' section containing 'File Sync & Share', 'Interactive Notebooks', 'Large File Transfer', 'Cloud Container Platform', 'Virtual Machines', 'Bulk Data Transfer', and 'Other Services'. The main content area features a welcome message 'Hello Maja Dolinar' and 'This is the overview of your EOSC EU Node account.' Below this is a green confirmation banner 'Welcome to the EOSC EU Node!'. The central part of the interface is a grid of six service tiles, each stating 'You have access to this service' and providing a 'View Service >' link. The services are: File Sync and Share, Interactive Notebooks, Large File Transfer, Virtual Machines, Cloud Container Platform, and Bulk Data Transfer. At the bottom, there are two sections: 'Notifications' (showing 'Access expiration' on Apr 11, 2025) and 'Favourites' (showing 'Interoperability • 2021'). A bottom-left status bar indicates 'Credits remaining 1500 / 2000' and '83 days until next refresh'.

European Commission

EOSC EU Node

Overview

Resource Hub

Tools Hub

SERVICES

File Sync & Share

Interactive Notebooks

Large File Transfer

Cloud Container Platform

Virtual Machines

Bulk Data Transfer

Other Services

Credits remaining 1500 / 2000

83 days until next refresh

Support

Default Personal Project

Maja Dolinar Investigator (AP-B)

## Hello Maja Dolinar

This is the overview of your EOSC EU Node account.

Welcome to the EOSC EU Node!

**File Sync and Share**  
You have access to this service  
[View Service >](#)

**Interactive Notebooks**  
You have access to this service  
[View Service >](#)

**Large File Transfer**  
You have access to this service  
[View Service >](#)

**Virtual Machines**  
You have access to this service  
[View Service >](#)

**Cloud Container Platform**  
You have access to this service  
[View Service >](#)

**Bulk Data Transfer**  
You have access to this service  
[View Service >](#)

**Notifications** [View all](#)

**Access expiration** Apr 11, 2025, 5:15:19 AM

**Favourites** [View all](#)

**Interoperability • 2021**

# Maximizing the Research Data Lifecycle with EOSC EU Node

## Use Cases:

- A Horizon Europe project can browse **Resource Hub** to find existing datasets to reuse, reducing duplication of effort.
- A research team analyzing climate data can use **Virtual Machines** to store and preprocess satellite images before analysis.
- A bioinformatics researcher can process genomic data in a **secure, cloud-based Jupyter Notebook** without setting up local infrastructure.



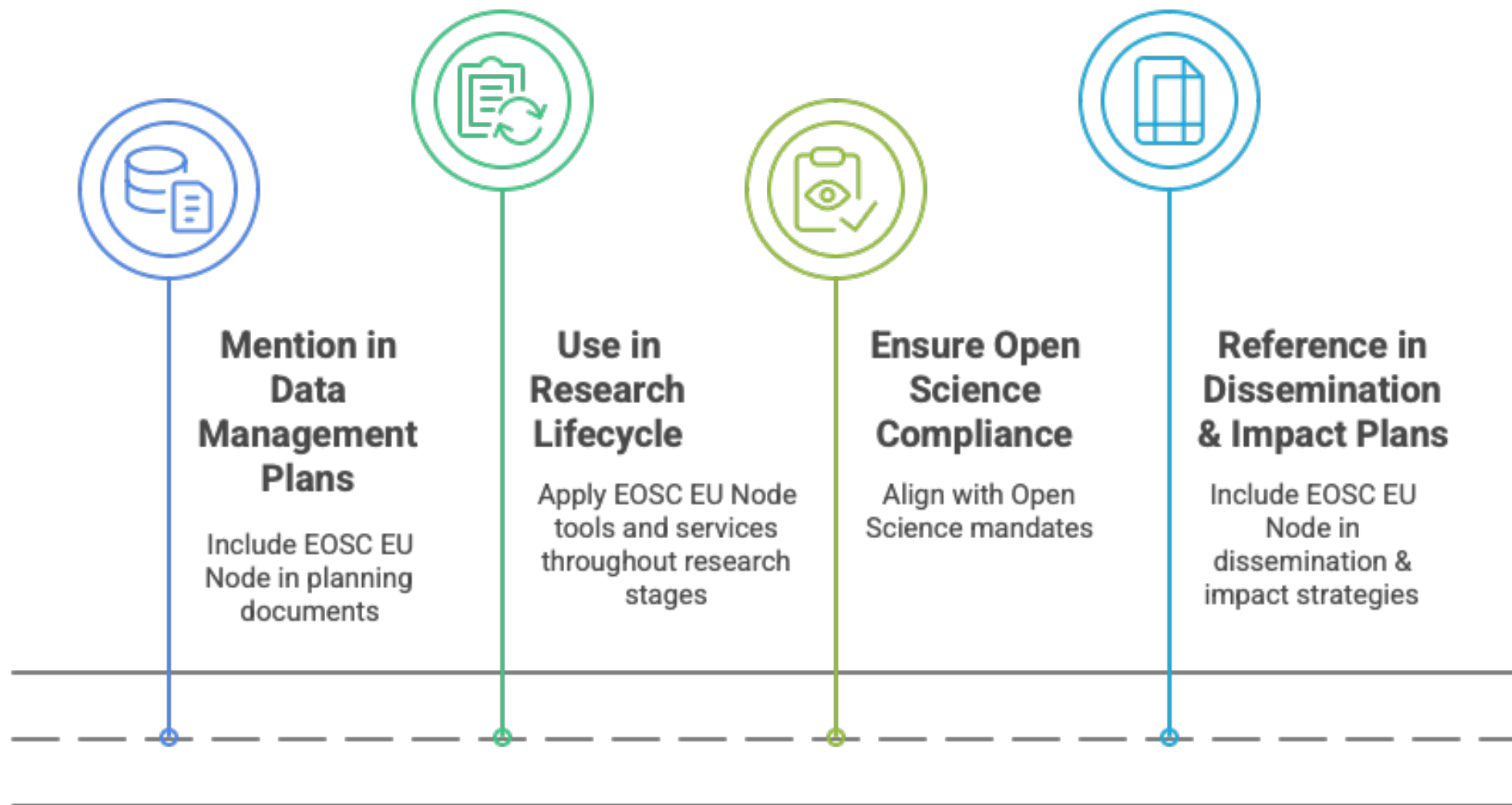
# Maximizing the Research Data Lifecycle with EOSC EU Node

## Use Cases:

- A HE project must comply with Open Access and FAIR principles – EOSC EU Node provides access to trusted repositories, persistent identifiers (DOIs), and metadata-rich datasets, ensuring that research outputs are FAIR.
- A HE project coordinator needs to report on data sharing and Open Science practices. EOSC EU Node's integrated metrics dashboard provides insights on dataset usage, downloads, and citations, ensuring compliance with EC reporting requirements.
- A social scientist finds economic datasets in Resource Hub and integrates them into new research, ensuring cross-disciplinary collaboration.



## Integrating EOSC EU Node into Research Proposals





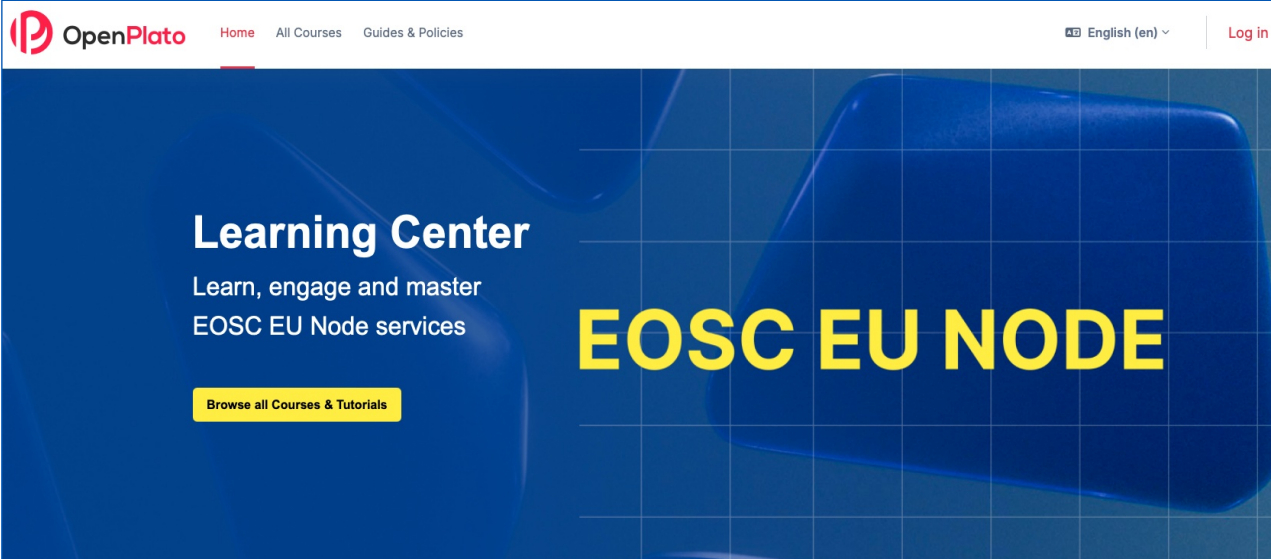
# EOSC EU Node supporting Horizon Europe projects

## Grants of up to 40,000 credits are available to EC-funded R&I projects

- One grant per project, one-time and non-replenishable
- Usable only during the project's duration
- For project-related needs within the EOSC EU Node
- Credits are added to the *Group Project Wallet*

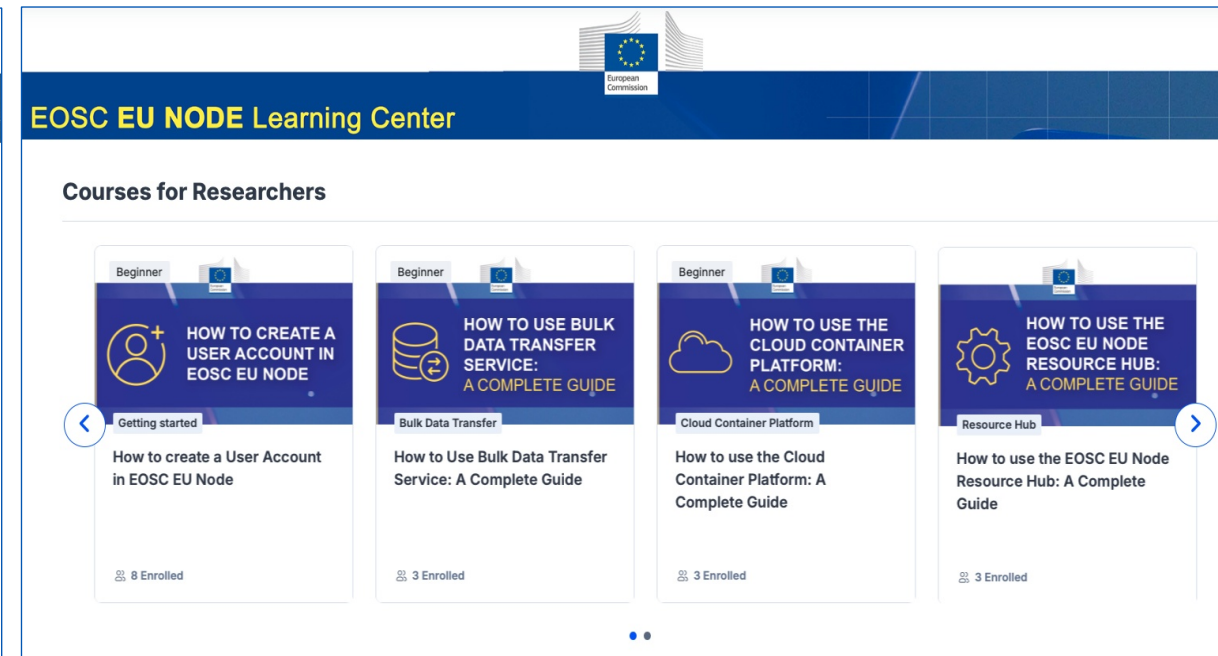
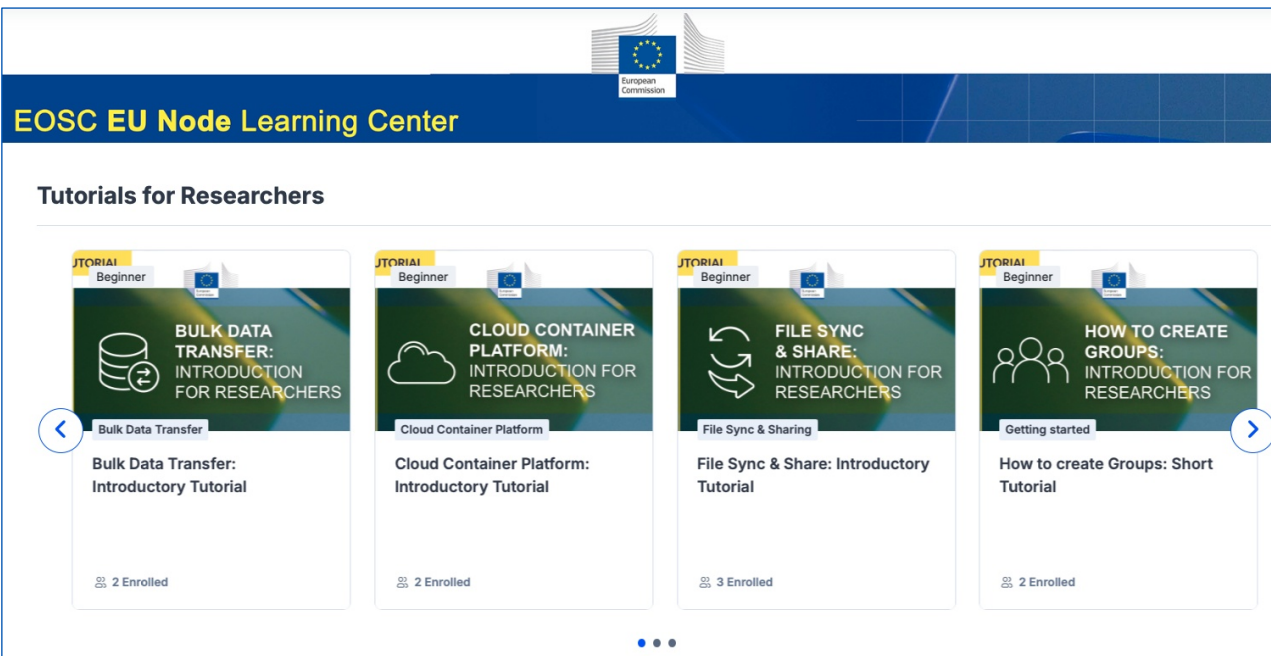
## How to get access:

- Submit a **helpdesk ticket** with following details:
  - EC Grant Number
  - EC Project Officer
  - Group Project ID and Owner
  - Short description of intended use of EOSC EU Node services

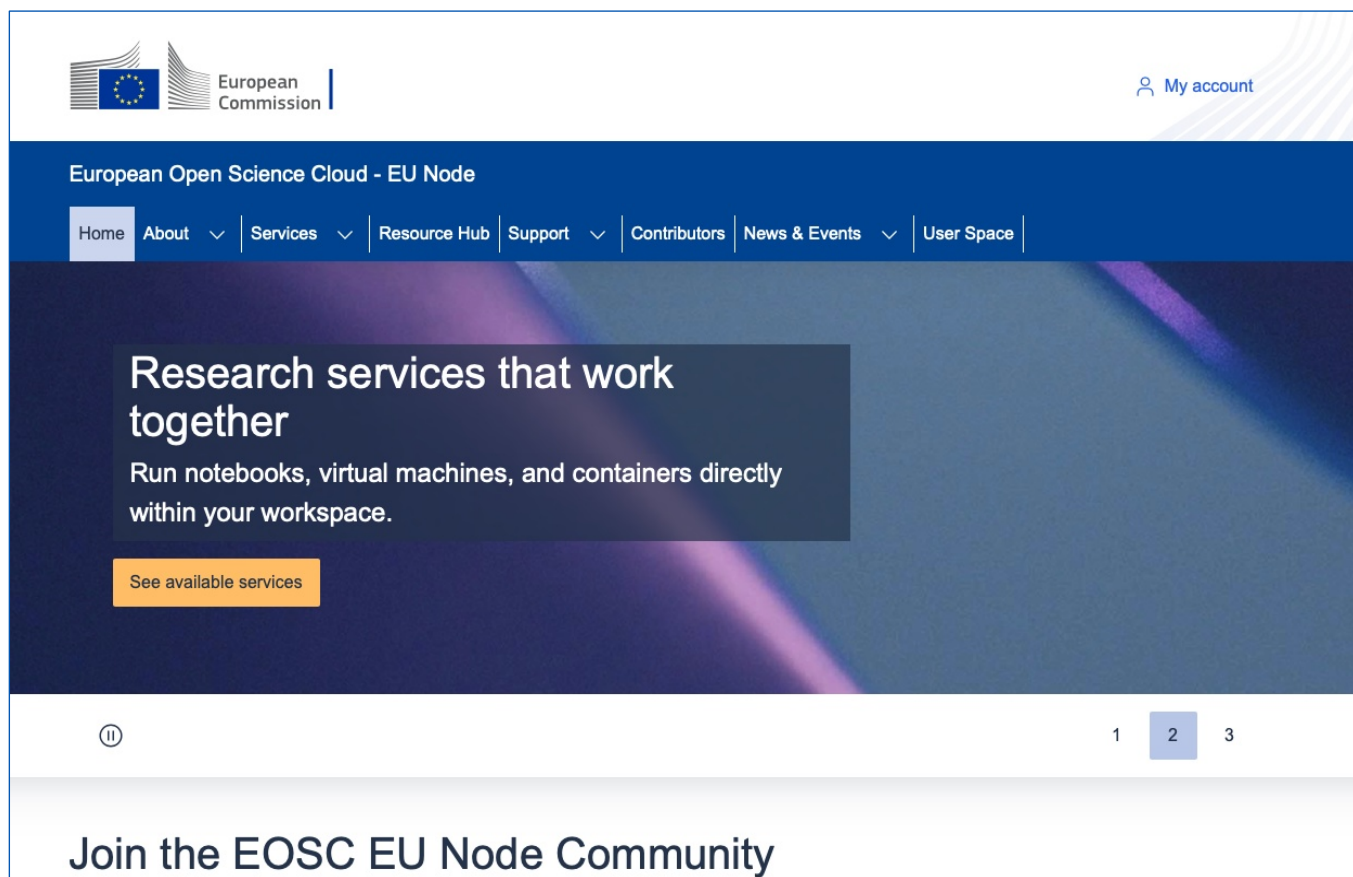


<https://openplato.eu/eosceunode>

- Earn Certificates
- Collect Badges
- Showcase your progress



# Get started with EOSC EU Node



- Visit:  
<https://open-science-cloud.ec.europa.eu/>
- Explore the Resource Hub
- Sign in using institutional credentials
- Explore available tools and services
- Integrate into your research workflows and Horizon Europe proposals

# OpenAIRE Explore



# OpenAIRE EXPLORE

## Makes the links

- A comprehensive and open dataset of research information covering 166m publications, 59m research data, 203k research software items, from 131k data sources, linked to 3m grants and 193k organisations
- Connect and view all of your research – publications, datasets, ORCID, software, DMP, etc. All linked together through citations and semantics.
- Search for publications, research data, research software...
- Download reports for research products of projects, organisations and data sources
- Find statistics, metrics and graphs for projects, data sources, research products...
- Browse by Sustainable Development Goals or fields of research
- Add to ORCID your research products with the ORCID search and link wizard
- Find a repository to deposit or publish your research (publications, data or software) in Open Access.



<https://explore.openaire.eu/>



# Reporting and monitoring

# Reporting - Monitoring

- Extensive reporting of Open Science practices:
  - Structured reporting of requirements regarding OA
  - Free-text reporting of encouraged Open Science practices
- Monitoring by project officers and reviewers in periodic reviews
- Monitoring of the FP through Key Impact Pathways (KIPs)



Slide adapted from Alea López de San Román (2021)  
under CC-BY 4.0  
<https://doi.org/10.5281/zenodo.4681073>

# EC Participant Portal – Continuous reporting

Grant Management | Project Continuous Report | ndevugen (EXTERNAL) ?

240153 (240153 RIZOSKO ...) HORIZON-...  
Call: HORIZON-ERC-2021-VICECHAIRS-IBA  
Topic: HORIZON-ERC-2021-VICECHAIRS-IBA

Project Summary ✓ Researchers involved in the project ✓ Deliverables i Milestones i Critical Risks ✓ Publications i Results ✓ Dissemination activities ✓ Standards ✓ Patents (IPR) ✓ Communication Activities ✓ Datasets ✓ Beneficiaries Feedback ✓ Impact ✓ Other Results ✓

## Publications

☐ This project does not currently have any scientific publications

Suggested publications from OpenAIRE (10 pending publications and 0 discarded publications)

	Type	Title	Authors	Title of the Journal or equivalent	Month and Year of publication	PID (Publisher version of record)	PID of the deposited publication	Actions
1	Chapter in a Book	Pebbling mountain ranges and its applic	Kurt Mehlhorn	Automata, Languages and Programming	25-02-2012	10.1007/3-540-10003-2_89		✖
2	Chapter in a Book	Algorithms on Graphs	Kurt Mehlhorn		02-11-2012	10.1007/978-81-322-0750-4_5	10.1007/978-3-642-69897-2_1	✖
3	Chapter in a Book	Algorithms for Equilibrium Prices in Line	Kurt Mehlhorn	Algorithms and Computation ISBN: 9783	17-01-2014	10.1007/978-3-319-04657-0_1		✖
4	Chapter in a Book	Algorithmic Paradigms	Kurt Mehlhorn	Data Structures and Algorithms 1 ISBN: 9	28-07-2012	10.1007/978-3-642-69672-5_4	10.1007/978-3-642-69897-2_4	✖
5	Chapter in a Book	NP-Completeness	Kurt Mehlhorn	Data Structures and Algorithms 2 ISBN: 9	28-07-2012	10.1007/978-3-642-69897-2_3		✖
6	Chapter in a Book	The Engineering of some Bipartite Match	Kurt Mehlhorn	Algorithms and Computation ISBN: 9783	09-08-2007	10.1007/3-540-46632-0_1	10.1007/3-540-46691-6_36	✖
7	Chapter in a Book	The Reliable Algorithmic Software Chall	Kurt Mehlhorn	Experimental and Efficient Algorithms I	30-11-2007	10.1007/3-540-44867-5_18		✖
8	Article in Journal	Bracket-languages are recognizable in li	Kurt Mehlhorn		26-07-2002	10.1016/0020-0190(76)90013-2	10.22028/d291-26081	✖
9	Book/Monograph	Datenstrukturen und effiziente Algorith	Kurt Mehlhorn	Crossref	04-03-2012	10.1007/978-3-322-86786-5		✖
10	Chapter in a Book	Sets	Kurt Mehlhorn	Data Structures and Algorithms 1 ISBN: 9	28-07-2012	10.1007/978-3-642-69672-5_3		✖

Project publications (0 publications)  
Show/Hide Filters Clear Filters

Type	Title	Authors	Title of the Journal or equivalent	Number	Peer-reviewed	Was the publication available in open access through the repository at the time of publication	PID (Publisher version of record)	PID of deposited publication	Actions

[Export to Excel](#) [Add Publication](#)

\* 'open access' means the practice of providing online access to research outputs resulting from actions funded under the Programme, in particular scientific publications and research data, free of charge to the end-user

Validate

# Publications

Grant Management

Project Continuous Report

231799 (231799 AMBROW...) HORIZON-...

Call: HORIZON-ERC-2021-VICECHAIRS-IBA  
Topic: HORIZON-ERC-2021-VICECHAIRS-IBA

Project Summary Deliverables Milestones Critical Risks Publications Dissemination activities Patents (IPR) Communication Activities Datasets Researchers involved in the project Financial support to 3rd parties Beneficiaries Feedback Impact Results Other Results

Publications

☐ This project does not currently have any scientific publications  
Suggested publications from OpenAIRE (7 pending publications)  
☐ Include previously discarded publications

	Type	Title	Authors	Title of the Journal or equivalent	Month and Year of publication	PID (Publisher version of record)	PID of the deposited publication	Actions
1	Chapter in a Book	Pebbling mountain ranges and its applic	Kurt Mehlhorn	Automata, Languages and Programming	25-02-2012	10.1007/3-540-10003-2_89		✖
2	Chapter in a Book	Algorithmic Paradigms	Kurt Mehlhorn	Data Structures and Algorithms 1 ISBN:	28-07-2012	10.1007/978-3-642-69672-5_4	10.1007/978-3-642-69897-2_4	✖
3	Chapter in a Book	The Engineering of some Bipartite Matc	Kurt Mehlhorn	Algorithms and Computation ISBN: 9783	09-08-2007	10.1007/3-540-46632-0_1	10.1007/3-540-46691-6_36	✖
4	Chapter in a Book	The Reliable Algorithmic Software Chall	Kurt Mehlhorn	Experimental and Efficient Algorithms I	30-11-2007	10.1007/3-540-44867-5_18		✖
5	Article in Journal	Bracket-languages are recognizable in l	Kurt Mehlhorn		26-07-2002	10.1016/0020-0190(76)90013-2	10.22028/d291-26081	✖
6	Book/Monograph	Datenstrukturen und effiziente Algorith	Kurt Mehlhorn	Crossref	04-03-2012	10.1007/978-3-322-86786-5		✖
7	Chapter in a Book	Sets	Kurt Mehlhorn	Data Structures and Algorithms 1 ISBN:	28-07-2012	10.1007/978-3-642-69672-5_3		✖

Project publications (2 publications)  
Show/Hide Filters Clear Filters

	Type	Title	Authors	Title of the Journal or equivalent	Number	Peer-reviewed	Was the publication available in open access through the repository at the time of publication	PID (Publisher version of record)	PID of deposited publication	Actions
1	Chapters in books	Algorithms for Equilibrium Pri	Kurt Mehlhorn	Algorithms and Computation I		False	False			✖
2	Chapters in books	NP-Completeness	Kurt Mehlhorn	Data Structures and Algorithm		False	False			✖

\* "open access" means the practice of providing online access to research outputs resulting from actions funded under the Programme, in particular scientific publications and research data, free of charge to the end-user

Download EXCEL Add Publication

Validate

View Open AIRE Publication

Type: Chapter in a Book  
Title: Algorithms for Equilibrium Prices in Linear Mark  
Authors: Kurt Mehlhorn  
Title of the Journal or equivalent: Algorithms and Computation ISBN: 97833190461  
Month and Year of publication: 17-01-2014  
PID (Publisher version of record): 10.1007/978-3-319-04657-0\_1  
PID of the deposited publication:  
Number:  
Web Source: https://doi.org/10.1007/978-3-319-04657-0\_1  
Open AIRE ID: doi:10.1007/978-3-319-04657-0\_1  
Journal Number:

Import Discard Close

Edit Publication

Please check or correct the information about the publication and fill-in the additional information

Type of PID (repository):  
PID of deposited publication:  
PID (publisher version of record):  
Type of publication:  
Link to publication:  
Title of the scientific publication:  
Authors:  
Title of the Journal or equivalent:  
Number:  
ISBN or eISSN:  
Publisher:  
Month of publication:  
Year of publication:  
Was the publication available in open access through the repository at the time of publication:  
Peer-reviewed:  
PID (Publisher version of record):  
Book title:  
Did you charge OA publishing fees to the project?:  
Type of publishing venue:  
Article processing costs that will be charged to the project:

DOI:  
10.1007/978-3-319-04657-0\_1  
Chapters in books:  
https://doi.org/10.1007/978-3-319-04657-0\_1  
Algorithms for Equilibrium Prices in Linear Market Models  
Kurt Mehlhorn  
Algorithms and Computation ISBN: 9783319046563  
January  
2014  
Yes No  
Yes No  
Yes No  
Yes No  
OK Cancel

<https://webgate.ec.europa.eu/funding-tenders-opportunities/pages/viewpage.action?pageId=34472316>

# Publications

- "Type of PID" = unique URL given by the repository or the publisher
- "PID of deposited publication" = URL to the repository where AAM/VoR is archived
- "PID (Publisher version of record)" = URL to the place where it was published (e.g. given by the journal)
- "Article processing costs that will be charged to the project" – remember that OA fees to publish in a non-full-OA journal/platform cannot be charged to the project

**Edit Publication**

Please check or correct the information about the publication and fill-in the additional information

Type of PID (repository)	DOI
PID of deposited publication	
PID (publisher version of record) *	10.1007/978-3-319-04657-0_1
Type of publication *	Chapters in books
Link to publication	<a href="https://doi.org/10.1007/978-3-319-04657-0_1">https://doi.org/10.1007/978-3-319-04657-0_1</a>
Title of the scientific publication *	Algorithms for Equilibrium Prices in Linear Market Models
Authors *	Kurt Mehlhorn
Title of the Journal or equivalent	Algorithms and Computation ISBN: 9783319046563
Number	
ISSN or eISSN	
Publisher	
Month of publication	January
Year of publication	2014
Was the publication available in open access through the repository at the time of publication *	<input type="radio"/> Yes <input checked="" type="radio"/> No
Peer-reviewed *	<input type="radio"/> Yes <input checked="" type="radio"/> No
PID (Publisher version of record)	
Book title	
Did you charge OA publishing fees to the project? *	<input type="radio"/> Yes <input checked="" type="radio"/> No
Type of publishing venue	
Article processing costs that will be charged to the project	

# Datasets

Grant Management

240153 (240153 RIZOSKO ...)

Call: HORIZON-ERC-2021-VICECHAIRS-IBA  
Topics: HORIZON-ERC-2021-VICECHAIRS-IBA

Project Continuous Report

Project Summary Researchers involved in the project Deliverables Milestones Critical Risks Publications Results Dissemination activities Standards Patents (IPR) Communicative Activities **Datasets** Beneficiaries feedback Impact Other Results

☐ This project does not currently have any dataset

Suggested Datasets from OpenAIRE (10 pending datasets and 0 discarded datasets)

	PID	Type of PID	Brief Description of Dataset	URL to Repository	Actions
1	<a href="#">10.17632/hh9f7txd38</a> <a href="#">10.17632/hh9f7txd38.1</a>	DOI	ToF-ERDA data with partial GIC energy signals from QMB covers 1,2,3,5 (ILW-1-2).	<a href="#">10.17632/hh9f7txd38.1</a>	
2	<a href="#">10.11583/dbu.14188487.v1</a> <a href="#">10.11583/dbu.14188487</a>	DOI	Data for the figures of the article "Trapped upper hybrid waves as eigenmodes of	<a href="#">10.11583/dbu.14188487.v1</a>	
3	<a href="#">10.17632/8f3x85vuvot.1</a> <a href="#">10.17632/8f3x85vuvot</a>	DOI	ToF-ERDA data from QMB covers 1, 2, 3, 5 (ILW-3). Data provided as list-files (.lst	<a href="#">10.17632/8f3x85vuvot.1</a>	
4	<a href="#">10.17632/frmoo7o5k.1</a> <a href="#">10.17632/frmoo7o5k</a>	DOI	This dataset contains code examples for different symplectic integrators with no	<a href="#">10.17632/frmoo7o5k.1</a>	
5	<a href="#">10.17632/mf6bcvovom</a> <a href="#">10.17632/mf6bcvovom.1</a>	DOI	ToF-ERDA data from spatial blocks 4, 5, 6 (ILW-1), side facing 90 degrees from plz	<a href="#">10.17632/mf6bcvovom.1</a>	
6	<a href="#">10.5281/zenodo.1410280</a> <a href="#">10.5281/zenodo.1410281</a>	DOI	Source code, inputs, simulation outputs, analysis scripts and figures used in the	<a href="#">10.5281/zenodo.1410280</a>	
7	<a href="#">10.5281/zenodo.3938978</a>	DOI	-p>Supplementary material associated to publication "3D transient CFD sim	<a href="#">10.5281/zenodo.3938978</a>	
8	<a href="#">10.17632/3dxcvcs7.1</a> <a href="#">10.17632/hm63oc4d7.1</a>	DOI	Raw ToF-ERDA data from all samples, both as list files (.lst) and as data files (.r	<a href="#">10.17632/3dxcvcs7.1</a>	
9	<a href="#">10.6084/m9.figshare.6391796</a> <a href="#">10.6084/m9.figshare.6391796.v1</a>	DOI	This dataset contains artifacts relating to the results presented in the Euro-Par 2	<a href="#">10.6084/m9.figshare.6391796.v1</a>	
10	<a href="#">10.5281/zenodo.3937295</a> <a href="#">10.5281/zenodo.3937294</a>	DOI	Excel file reporting the number of involved FW channels following a break in the	<a href="#">10.5281/zenodo.3937295</a>	

Project Datasets (0 datasets)

Export to Excel Add Dataset Validate

## Datasets

☐ This project does not currently have any dataset

## Import Dataset

Please check or correct the information about the dataset and fill-in the additional information when possible

Type of PID \* DOI  
Description of Dataset \* ToF-ERDA data with partial GIC e  
PID 10.17632/hh9f7txd38  
PID of the publication 10.17632/hh9f7txd38.1  
Does the data underpin a publication \*  
☐ Yes ☒ No  
PID of the publication  
Publication PID  
URL to repository <http://dx.doi.org/10.176>  
Is this dataset available in open access? \*  
☐ Yes ☒ No  
If data is needed to validate the conclusions of a scientific publication, and no open access has been given to the data, briefly describe the provisions whereby you intend to make it available  
Please elaborate fill in description  
Is the metadata of deposited data accessible through open access? \*  
☒ Yes ☐ No  
\* mandatory fields

Import

Discard

Close

<https://webgate.ec.europa.eu/funding-tenders-opportunities/pages/viewpage.action?pageId=25559674>

4



# Results vs Other Results

- 'Results' tab focused on the content of the results: discoveries and theories, products, services, methods, etc.
- 'Other Results' tab is for reporting about software, workflows, protocols, prototypes, etc.

The screenshot shows the 'Project Continuous Report' interface. The 'Results' tab is highlighted with a red box. Below the tabs, there is a table with columns: Name, Result type, Key results (RER) (does result have a high potential?), Description of high potential, Audience or target group, Steps undertaken towards exploitation, and Market maturity (state of the market targeted by this result). The table contains two rows of data.

Name	Result type	Key results (RER) (does result have a high potential?)	Description of high potential	Audience or target group	Steps undertaken towards exploitation	Market maturity (state of the market targeted by this result)
a	LEARN: Learning and training (learning n	High scientific potential	ssssss	Researchers	Prototyping in laboratory environment	Not yet existing and not clear if market
test2	SER: Service (new or improved)	High societal potential (other than clinical High policy or regulatory potential)	Insert description	Citizens	Feasibility study Business plan	Emerging: growing demand, scarce supply

The screenshot shows the 'Project Continuous Report' interface. The 'Other Results' tab is highlighted with a red box. Below the tabs, there is a table with columns: Type of result, Description, If the result is needed to validate the conclusions of a publication, describe the provisions whereby you intend to make your output available, either in digital or physical form?, Type of PID (if available), PID (if available), URL to repository landing page for the result service/webpage hosting the result (if available), and Actions. The table contains two rows of data.

Type of result	Description	If the result is needed to validate the conclusions of a publication, describe the provisions whereby you intend to make your output available, either in digital or physical form?	Type of PID (if available)	PID (if available)	URL to repository landing page for the result service/webpage hosting the result (if available)	Actions
Software	test 2	Open access	DOI		Insert URL if applicable	X
Protocol	test1	It doesn't underpin publication	Other		URL link	X

The 'Add Other Result' dialog box contains the following fields and options:

- Type of result: Dropdown menu with options: Software, Workflow, Protocol, Prototype, Other.
- Description: Text area with placeholder text: "If the result is needed to validate the conclusions of a publication, briefly describe the provisions whereby you intend to make your output available, either in digital or physical form".
- Type of Persistent Identifier, PID: Dropdown menu.
- Insert PID reference (if available): Text input field.
- Insert PID reference of the publication: Text input field.
- URL to repository landing page for the result service/webpage hosting the result (if available): Text input field with a small 'i' icon.
- What license is the result licensed under?: Dropdown menu.
- Buttons: Save, Cancel.

# Horizon Europe grant proposals

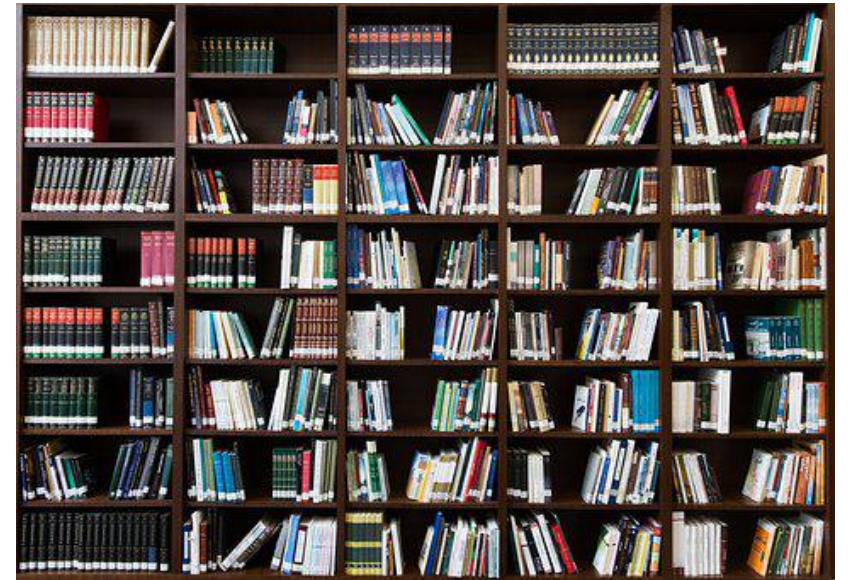
Jonathan England

# Open Science parts

- PART A – Application form
  - List 5 publications, widely-used datasets, softwares, goods, services or any other achievements relevant to the call
- PART B – Project proposal – technical description
  - Under 'Excellence' – '1.2 Methodology' (Open Science, RDM and management of other research outputs)
  - Under 'Impact' – '2.2 Measures to maximise impact' (dissemination, exploitation and communication)
  - Under 'Quality and efficiency of the implementation' – '3.1 Work plan and resources' and '3.2 Capacity of participants and consortium as a whole'

# Publications

- Your **publications cited should be available in OA** (i.e. openly available on a trusted repository)
- Your publications cited will only be evaluated **qualitatively** (i.e. the Impact Factor of the journal is irrelevant)
- Give insights in where you are hoping to publish (e.g. Open Research Europe, full OA journals)



# Depositing existing articles

It will depend on the publisher, but in many cases you will be able to make a version available in Open Access.

1. Check the Open Policy Finder (formerly SherpaRomeo) if the **publisher allows the upload** of the AAM on a repository.
2. Check the **embargo period** set by the publisher to the publication date of your work. If the embargo is over, you are free to upload it on a repository.
3. Upload the AAM on the repository, and **select the correct licence** set by the publisher.

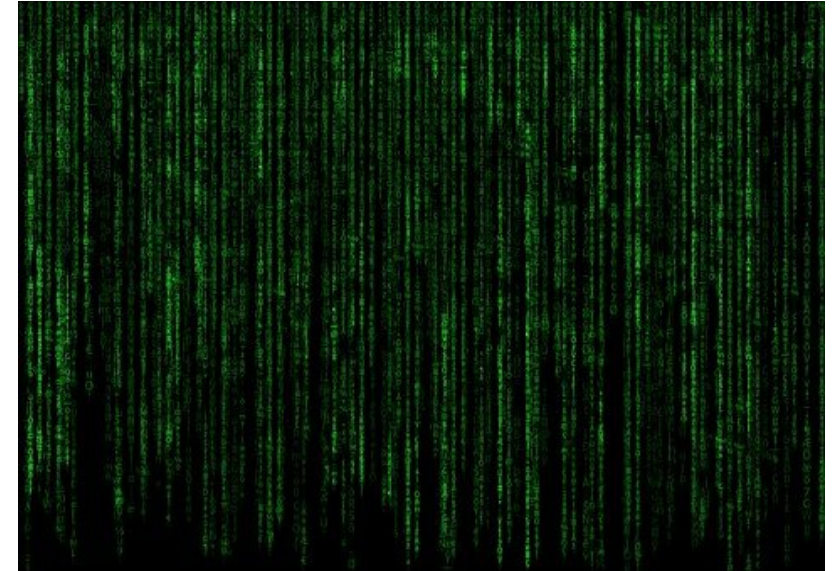
Some advice:

- Prioritise the repository of the institution you were at when you published that work (some institutions might not allow you to deposit new work after you have left)
- Make sure you are uploading the AAM and not the VoR
- The **requirement of the CC BY licence does not apply here**, the publication only needs to be openly accessible on the repository.



# Research Data

- Your **data listed should be FAIR**, available on a trusted repository and a Persistent Identifier (e.g. DOI) provided
- An official **DMP is not needed** but the grant proposal does include aspects very similar to a DMP (e.g type and size of data, Persistent Identifiers, Intellectual Property Rights, interoperability, licences, curation, responsibilities)
- Distinct Work Package on 'project management' that must include the DMP as a deliverable





# Other aspects eligible in the budget

- “engagement of citizens, civil society and end-users” – citizen science and participation in crowdsourcing activities
- Data curation costs
- Article Processing Charges (hybrid journals are not eligible)<sup>1</sup>



# Writing tips

- **Be as specific as possible**
- You do not need to explain what Open Access, FAIR data, Open Science, etc. mean. Focus on what concretely you will do



# Special cases

# ERC

- **No explicit evaluation or requirement to describe Open Science practices**; but if included, will (implicitly) positively affect assessment of ‘scientific excellence’
- ERC projects do not have scientific work packages or deliverables.
- But now requires a “Research Data Management” WP, with “Data Management Plan” as the one deliverable (type “R – Document, report” with due data M6)

[ERC DMP template](#)



**European Research Council**

Established by the European Commission



# MSCA

- Underlying principles: Open Science, Responsible Research & Innovation
- Award criteria will consider the “soundness of the proposed methodology” (**‘Excellence’ criteria** weighing 50% of the evaluation) which must consider “the quality of Open Science practices”
- **Training activities** and **Career Development Plan** must address key transferable skills “fostering the culture of Open Science, innovation and entrepreneurship” and prepare to the increase in “research collaboration and information-sharing” (e.g. collaborative tools, OA, open data, FAIR data, public engagement, citizen science)
- There is **no specific cost eligibility rule** for APCs: OA fees for hybrid venues can be covered



## MARIE CURIE ACTIONS

# Open Science recommended practices



# Evaluation

- Mandatory Open Science practices – score will be lowered for not sufficiently addressing them unless duly justified
- Recommended Open Science practices – **no impact on score** if not addressed but score will be increased if sufficiently addressed
- Open Science practices listed in the template for proposals (section Excellence > Methodology) but is a non-exhaustive list



de San Román (2021). Open Science in Horizon Europe. Train-the-trainer workshop. Zenodo. CC-BY 4.0  
<https://doi.org/10.5281/zenodo.5549524>

# Open Science practices

What?	How?	Mandatory in all calls/recommended
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended
Research output management	Data management plan (DMP)	<b>Mandatory</b>
Measures to ensure reproducibility of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	<b>Mandatory</b>
Open access to research outputs through deposition in trusted repositories	<ul style="list-style-type: none"> <li>Open access to publications</li> <li>Open access to data</li> <li>Open access to software, models, algorithms, workflows etc.</li> </ul>	<ul style="list-style-type: none"> <li><b>Mandatory</b> for peer-reviewed publications</li> <li><b>Mandatory</b> for research data <b>but</b> with exceptions ('as open as possible...')</li> <li>Recommended for other research outputs</li> </ul>
Participation in open peer-review	Publishing in open peer-reviewed journals or platforms	Recommended
Involving all relevant knowledge actors	Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)	Recommended

- Open science practices listed in the template for proposals (section excellence>methodology)
- Non-exhaustive list
- Mandatory in all calls: Model Grant Agreement or call requirement; all the rest recommended



de San Román (2021). Open Science in Horizon Europe. Train-the-trainer workshop. Zenodo. CC-BY 4.0  
<https://doi.org/10.5281/zenodo.5549524>

# Pre-registration

- Quantitative evaluation of research outputs has pushed towards less responsible research practices and the replication crisis (e.g. data dredging/p-hacking, cherry picking, HARKing [Hypothesising after the results are known])
- Pre-registration = “practice of publishing the plan for a study, including research questions/hypotheses, research design, data analysis before the data has been collected or examined” ([FORRT](#))
- Some research domains have standard procedures in place; e.g. pre-registration of clinical trials, check ECRIN: <https://ecrin.org/>



<https://www.cos.io/initiatives/prereg>

Nosek et al. (2018). The preregistration revolution.

<https://doi.org/10.1073/pnas.1708274114>

# Pre-prints

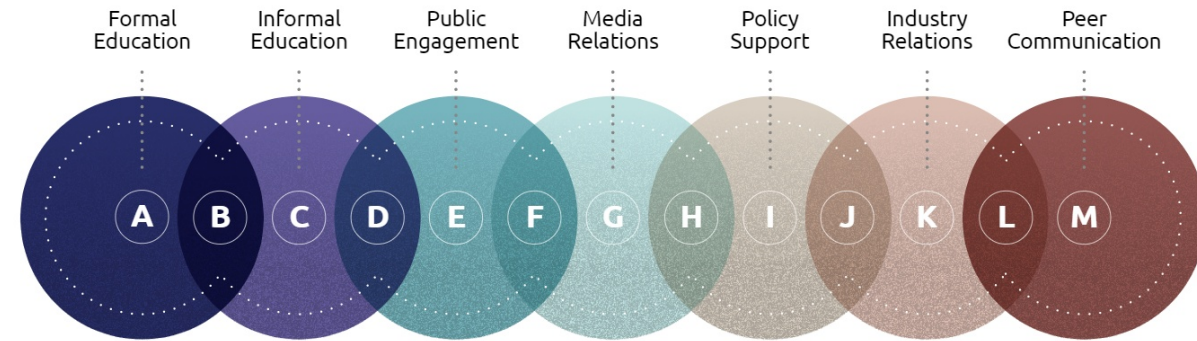
- Traditional scholarly publishing is usually time-consuming and slow
- Preprints allow authors to share their results ahead of peer-reviewing on preprint servers
- Faster dissemination and broader access to research outputs, opportunities for early feedback
- Visible outputs for early-career researchers, can increase employability





# Public engagement

- Open and inclusive research and innovation includes society that can be listened to, awarded relevant input and influence during all stages of the research process ([RRI Tools](#)) – public engagement contributes to the democratisation of science
- Increases scientific literacy of the public, improves societal relevance of science, increases the support and uptake of research
- E.g. [European Researchers' Night](#), [Science is Wonderful](#), public talks, talks in schools or cultural centres, popular science books, social media, documentaries, TV shows, school activities, art/science projects



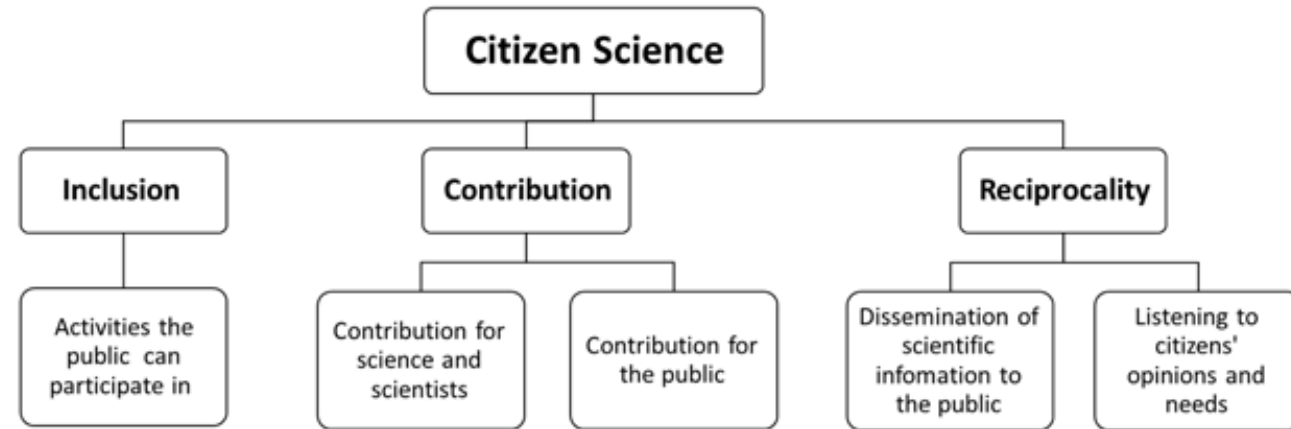
Pompea & Russo (2020). The role of astronomers in the astronomy education ecosystem.

<https://doi.org/10.48550/arXiv.2011.11350>



# Citizen Science

- Projects that actively involve the general public, in any of the stages of research, acting as collaborators, contributors or project leaders ([FORRT](#))
- Increases scientific literacy of the public, empowers citizens with scientific approaches, improves societal relevance of science, increases the support and uptake of research, explores new pathways for participatory governance
- [European Citizen Science Association](#), [EU Citizen Science platform](#)
- E.g. [Zooniverse](#), [School Network Alerts Citizens](#) analysing seismograms, in video games (e.g. [Borderlands 3](#))... and many more



Golumbic et al. (2017). CC-BY 4.0.



# Final tips

# Overall tips

- Design an **Open Science strategy** for your project.
- Include specific **provisions in the Consortium Agreement** about where publications and data will be deposited and who is responsible for doing this. Who will make sure that all outputs have been deposited in the appropriate repositories?
- Implement your Open Science strategy, **report at reviews and provide updates**.
- **Keep track of issues**, discuss the solutions.



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# THANKS