

Horizon Europe Open Science requirements in practice

Jonathan England



Horizon Europe reference documents

Program Guide of Horizon Europe

Annotated Model Grant Agreement (AGA)

ERC Managing your project > Open Science

Information package for MSCA and Financial Guide (6.4)

EC Participant Portal – 'Continuous reporting' guide

OpenAIRE guides

- Q&A from previous webinars
- 'A Quick Guide to Horizon Europe Open Access Requirements'

Next webinar
Friday 14 March
2025 at 12:00 CET

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

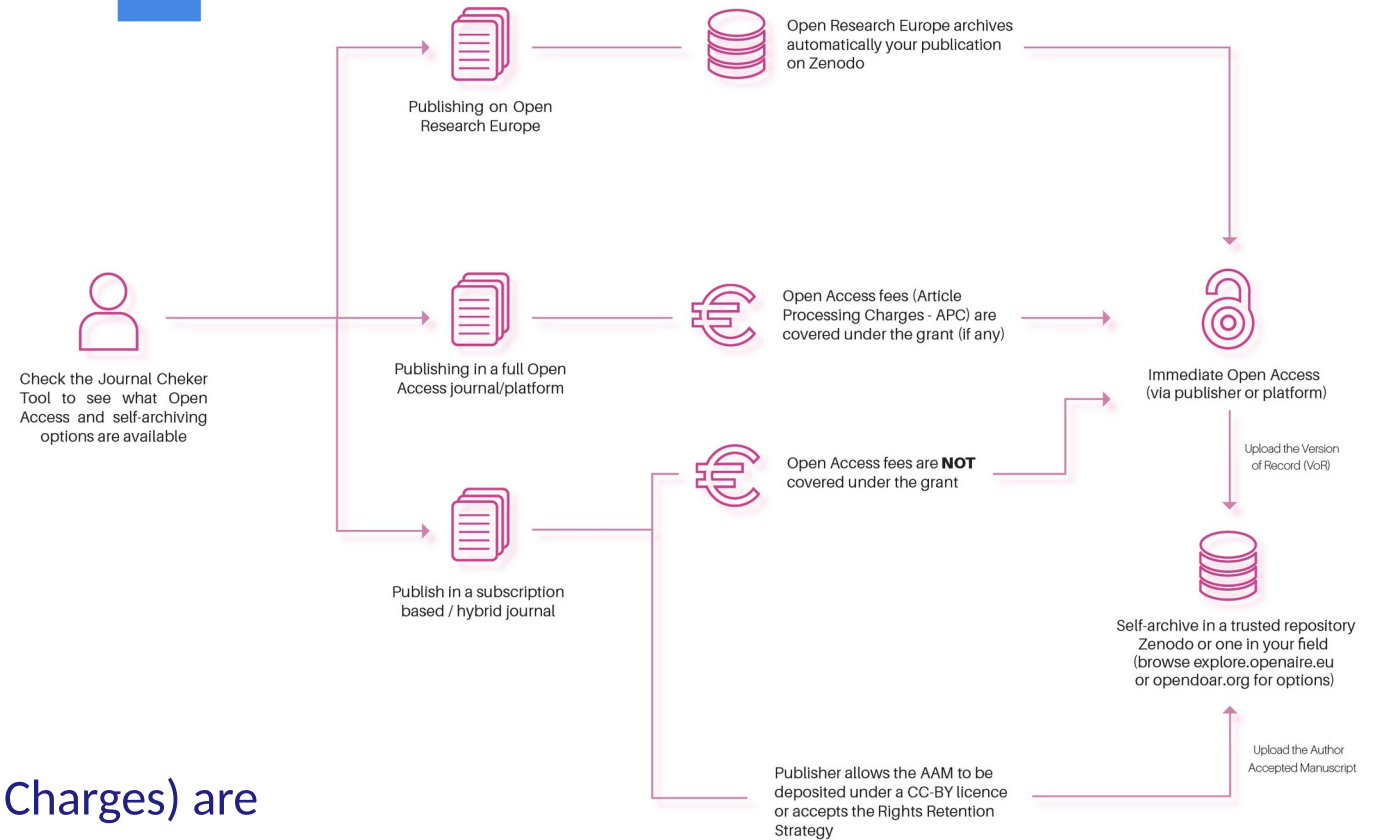
Requirements for publications

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

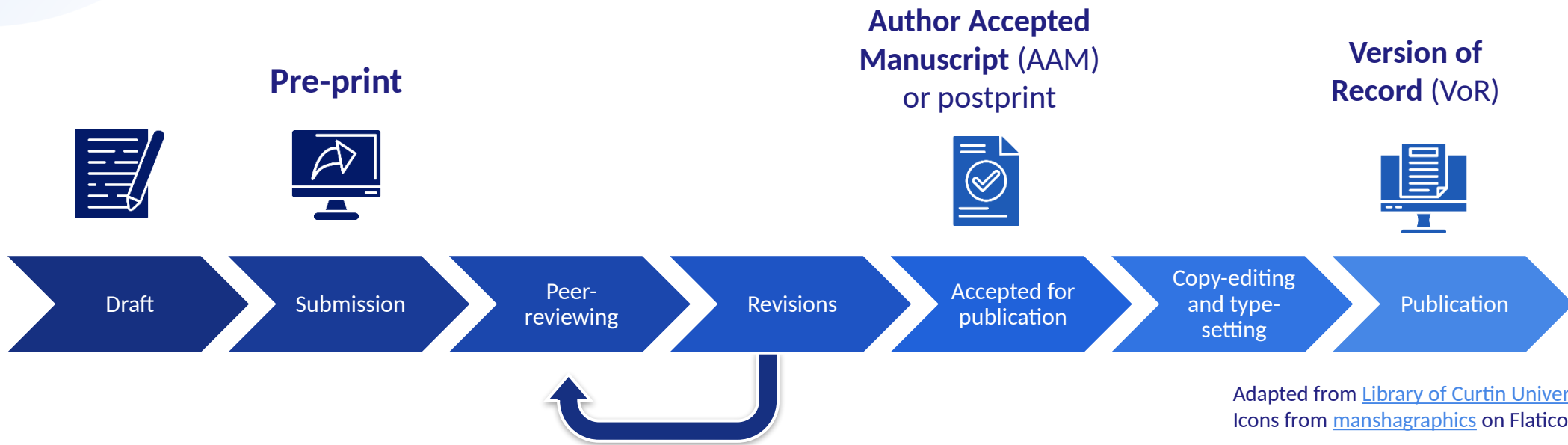
- Publication fees (Article Processing Charges) are **reimbursable** if the venue is full OA
- **No restrictions** on where to publish (journal doesn't have to be full OA), but APCs for hybrid journals are not covered
- CC BY-NC/BY-ND/BY-NC-ND allowed for long-text formats (e.g. monographs; a chapter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



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); 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://sherpa.ac.uk/opendoar/>

For everything:



<https://zenodo.org/>

Trusted repositories

- Currently only 4 trusted literature repositories are ‘ready’ for compliance (HAL, intR^2Dok , DANS DSA, 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)

Search for a repository on:

OpenAIRE | **EXPLORE**

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

For your publications:

OpenDOAR

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

For everything:



<https://zenodo.org/>

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

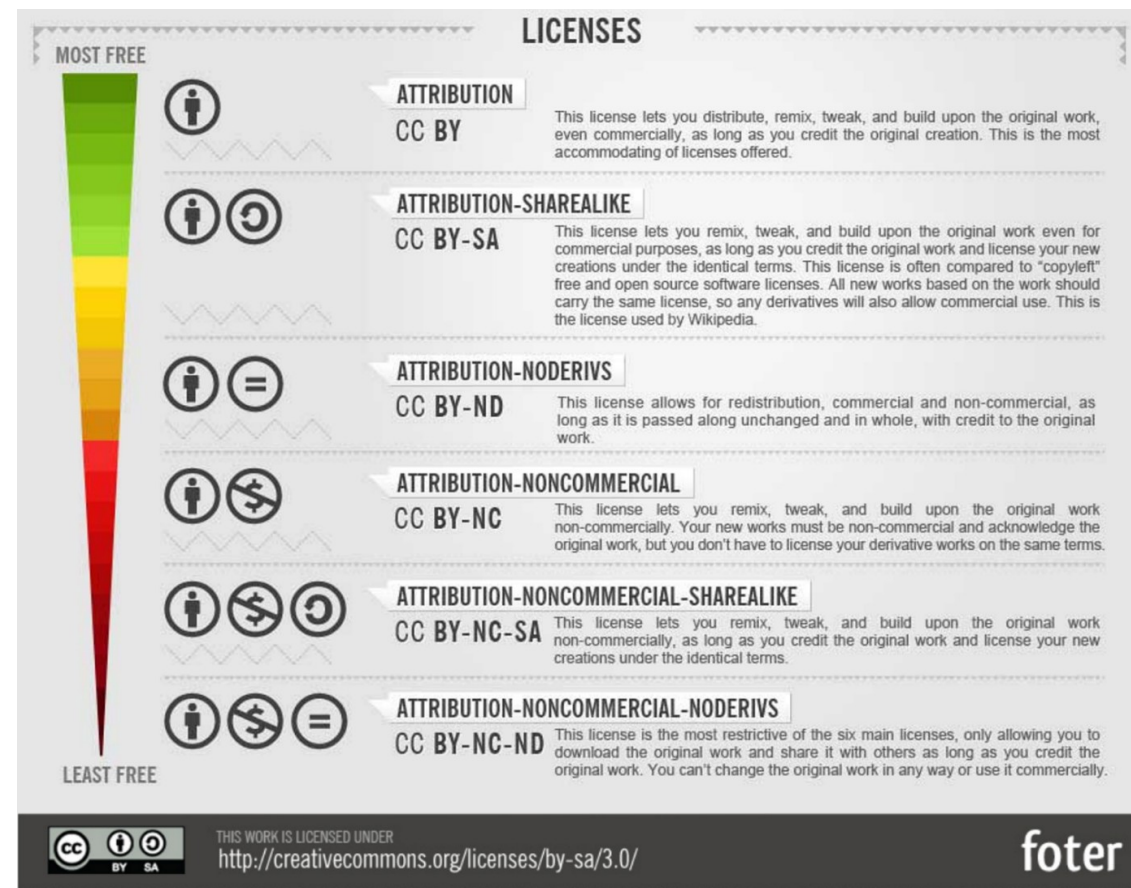
- Removes ambiguity over what others can and cannot do with your work
- You keep (certain) rights, but you grant certain reuses without them needing to contact you
- Universally recognisable and juridically sound (you can still claim copyright infringements)



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**




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 Comr + By ROR or nam =

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



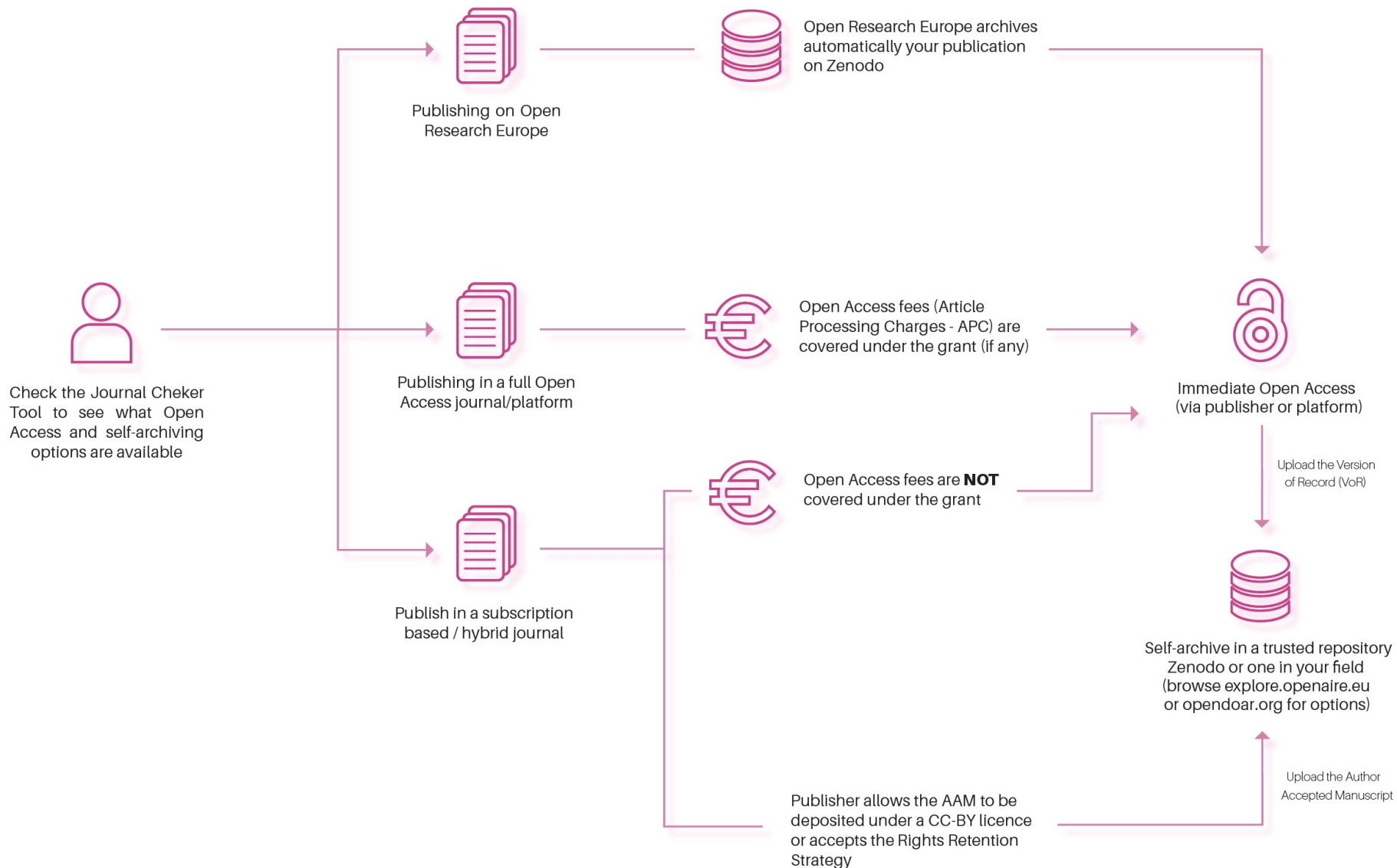
OPEN ACCESS PUBLISHING IN THIS JOURNAL ALLOWS COMPLIANCE WITH THE HORIZON EUROPE OPEN ACCESS MANDATE PROVIDED YOU HAVE ALTERNATIVE FUNDS

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/>



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



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/JamesMc  
edir');  
  
t).org/httpdocs://tmp/"  
rray('/', '\\'), DIRECTORY_SEPARAT  
rray('/', '\\'), DIRECTORY_SEPARAT  
= DIRECTORY_SEPARATOR) {  
PARATOR;  
  
_SEPARATOR, $open_basedir);  
sedir) {  
) != DIRECTORY_SEPARATOR) {  
SEPARATOR;
```

Another option





Open Research Europe

*Victoria Tsoukala, PhD
Policy Officer, Unit for Open Science and
Research Infrastructures
DG Research & Innovation
European Commission*

Open AIRE training
November 22, 2024
Online

Open Research Europe (ORE)

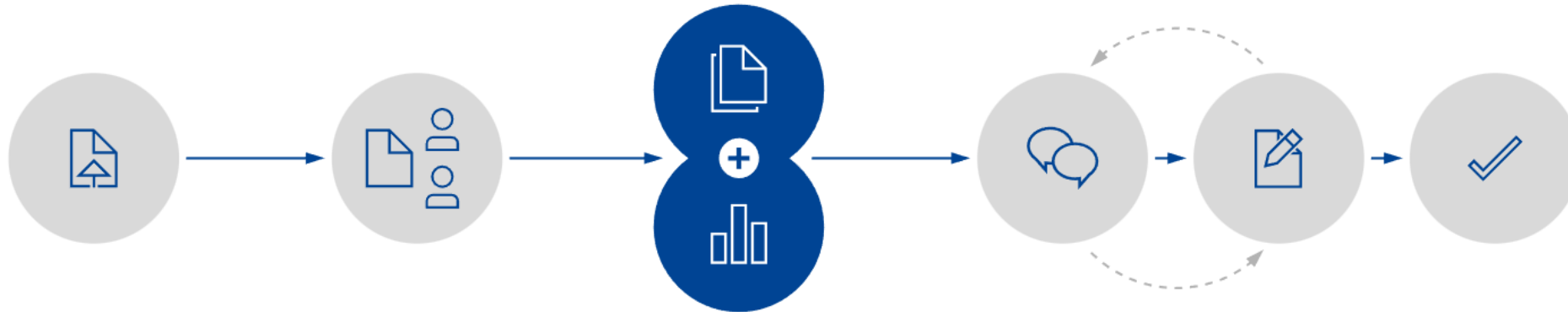
- Peer-reviewed open access publishing platform for original research (NOT a repository)
- Platform for grantees of EU programmes (including Horizon Europe)
 - **Optional** service, at **no cost to them**, during and after end of their projects
 - **Automatic compliance** with Horizon Europe open access requirements (deposit of peer-reviewed publications in zenodo)
- Innovative publishing model initiated by a funder
 - **Post-publication open peer review**: first you publish; then review takes place
 - All articles and reviews in **open access under CC BY licenses**
 - **High scientific standards and policies**: Scientific Advisory Board; publisher policies and guidelines, including underlying data availability, analysis of method etc.
 - **Transparent** service: in editorial process, in research process
- Publishes in **all disciplines**
 - Gradually developing researcher-led **community gateways and collections** in specific fields
 - ca 700 articles, 1500 reviews
- **Indexed** in important indexers & national lists (including Scopus and PubMed)
- **Operated by F1000 Research Ltd** through public procurement

2021- 2024 (November) in important numbers

- Just over **1000 submissions**
- Ca **769 articles published**
- **500 articles indexed** (completed successful peer-reviews)
- Ca **1500 published authors**; ca **1700 submitted authors**
- Nearly **2000 reviewers**
- Ca **850 unique institutions published**, ca **950 unique submitting institutions**

An innovative publication model

Our Publishing Process



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.

Prepublication checks

The pre-publication checks

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



**Open
Research
Europe**



Open Research Europe in Action



Efficient

- Rigorous open peer review
- Rapid and transparent
- International scientific advisory board



Impactful

- Immediate open access
- Article-level metrics
- Open data for reproducibility and reuse



Stress-free

- Optional service*
- No administrative burden
- No author fees
- Automatic compliance with open access requirements

* Service available also after grant has ended

Open
Research
Europe

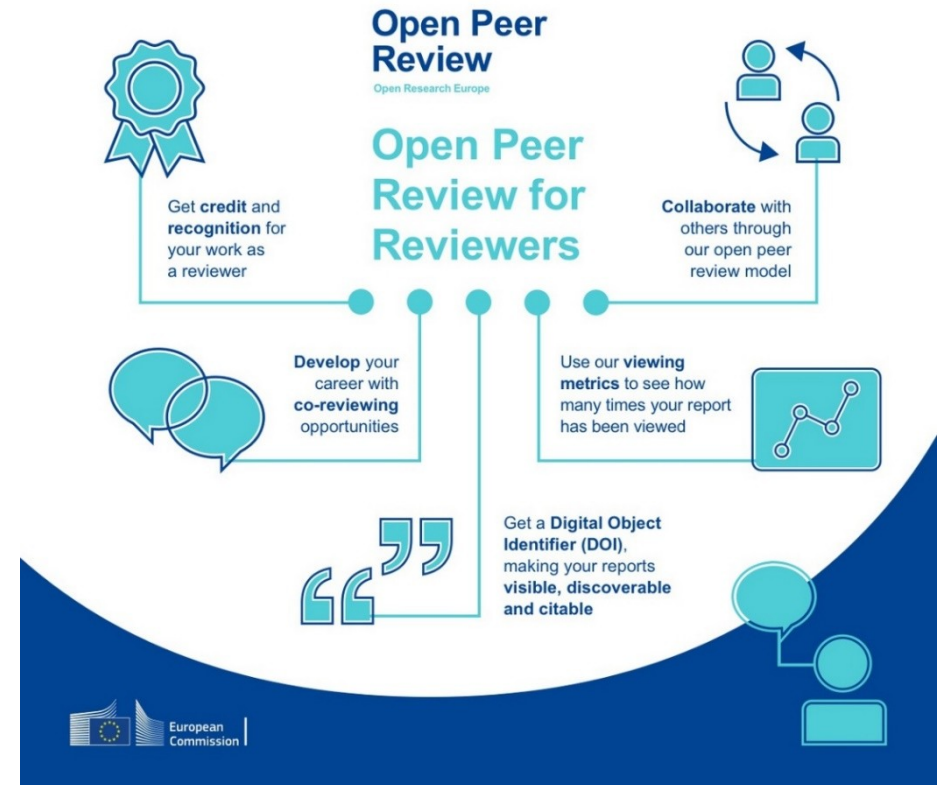
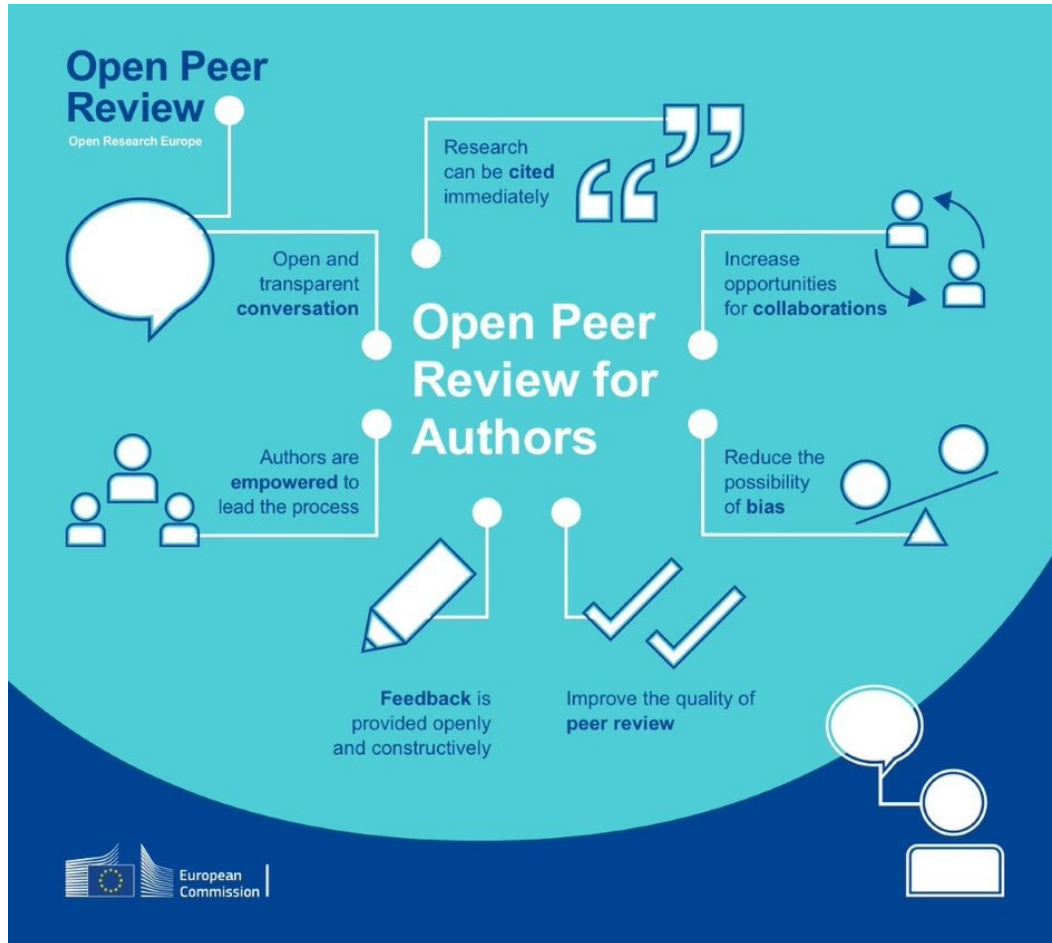


European
Commission



European
Commission

Open peer review: a win-win situation



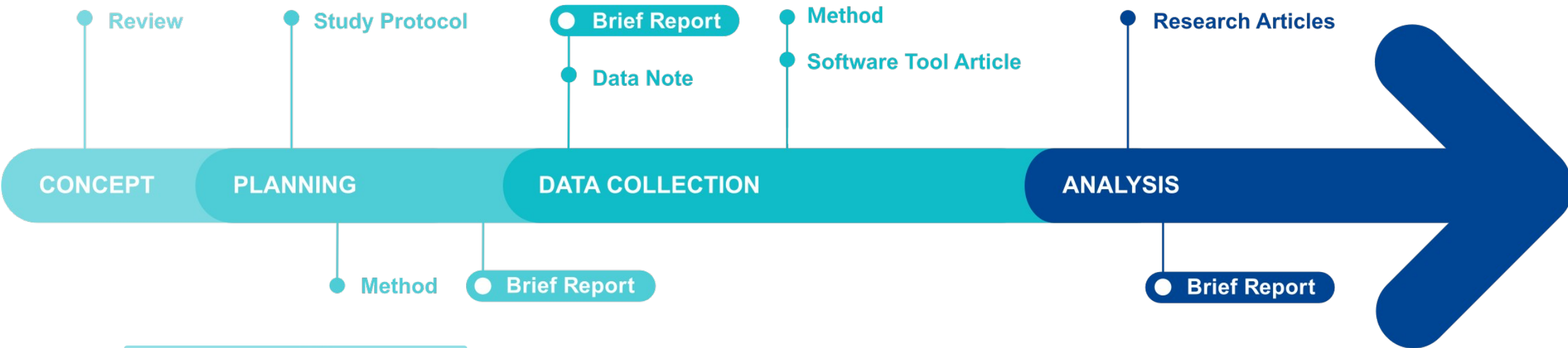
Supporting
reproducibility
& transparency
in research

Open Research Europe

4 Steps to Open Data



Publishing throughout the research process



	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					•	•

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Twitter

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



Thank you



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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

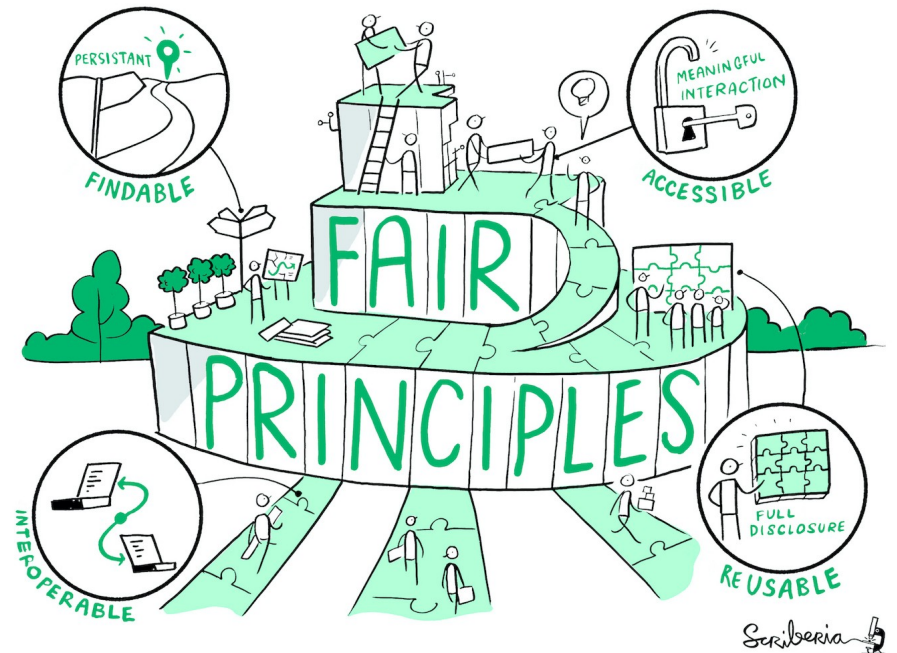


Image by [Scriberia](#) for [The Turing Way Community](#) under CC-BY 4.0

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>

Trusted repositories

- Currently only 5 trusted data repositories are ‘ready’ for compliance (HAL, AUSSDA, <intR>²Dok, DANS DSA, 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)

Search for a repository on:

OpenAIRE | EXPLORE

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

For your data:

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

For everything:



<https://zenodo.org/>

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)

Some useful tools

EOSC EU Node

- A new platform to support users at every stage of the research lifecycle, aiming towards more extensive collaboration across Europe and fostering innovation throughout the entire research community.
- Various services available on your [User Space](#):
 - **File Sync and Share** facility to maintain consistent data sharing across your multiple work environments.
 - **Notebook environment** to create and share documents with real-time code execution.
 - **Large File Transfer** function to reliably send files to colleagues.
 - **Virtual Machines** to design and conduct experiments with flexibility while ensuring reproducibility.
 - **Cloud Container Platform** to streamline the execution of cloud-native research workflows.
 - **Bulk Data Transfer** system to efficiently move large datasets without incurring in any loss.
- Services **accessed using credits** - provided free by the EC upon first login and **renewed every three months**. The credit amount is based on the affiliation of your organisation.
- A **Resource Hub** that gives access to:
 - Research data, publications and software
 - Services offered by the broader research community
 - Support and learning material to help you practice FAIR and Open Science
 - Deployment tools and recipes that enable execution of data science workflows

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/>


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

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.
- Discoverable through OpenAIRE EXPLORE
- Accessible: Persistent Identifiers (ORCID & 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

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

ndevugen (EXTERNAL) ?

Grant Management
Project Continuous Report

240153 (240153 RIZOSKO ..) HORIZON-..
Project Summary
Researchers involved in the project
Deliverables
Milestones
Critical Risks
Publications
Results
Disseminat... activities
Standards
Patents (IPR)
Communic... Activities
Datasets
Beneficiaries Feedback
Impact
Other Results

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

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 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	✘
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 l	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

* '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

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

[Validate](#)

Publications

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

231799 (231799 AMBROMV ...) HORIZON-...

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

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

Publications SAVE

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: 9783	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			✖

Download 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

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:.....:f22556393aa92115b26dc8bc061
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)	DOI
PID of deposited publication	10.1007/978-3-319-04657-0_1
PID (publisher version of record) *	10.1007/978-3-319-04657-0_1
Type of publication *	Chapters in books
Link to publication	https://doi.org/10.1007/978-3-319-04657-0_1
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	

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)
 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
 ISSN 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

OK **Cancel**

Datasets

Datasets

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	10.17632/hh9f7txd38 10.17632/hh9f7txd38.1	DOI	ToF-ERDA data with partial GIC energy signals from QMB covers 1,2,3,5 (ILW-1-2).	↗	✖
2	10.11583/ctu.14188487.v1 10.11583/ctu.14188487	DOI	Data for the figures of the article "Trapped upper hybrid waves as eigenmodes of	↗	✖
3	10.17632/8f3x85vuvot.1 10.17632/8f3x85vuvot	DOI	ToF-ERDA data from QMB covers 1, 2, 3, 5 (ILW-3). Data provided as list-files (.lst	↗	✖
4	10.17632/frmox7o5k.1 10.17632/frmox7o5k	DOI	This dataset contains code examples for different symplectic integrators with no	↗	✖
5	10.17632/mf6brvovom 10.17632/mf6brvovom.1	DOI	ToF-ERDA data from spatial blocks 4, 5, 6 (ILW-1), side facing 90 degrees from pl	↗	✖
6	10.5281/zenodo.1410280 10.5281/zenodo.1410281	DOI	Source code, inputs, simulation outputs, analysis scripts and figures used in the p	↗	✖
7	10.5281/zenodo.3938978	DOI	Supplementary material associated to publication "3D transient CFD sim	↗	✖
8	10.17632/3dxocvfw7.1 10.17632/hm63oc4d7.1	DOI	Raw ToF-ERDA data from all samples, both as list files (.lst) and data files (.r	↗	✖
9	10.6084/m9.figshare.6391796 10.6084/m9.figshare.6391796.v1	DOI	This dataset contains artifacts relating to the results presented in the Euro-Par 2	↗	✖
10	10.5281/zenodo.3937495 10.5281/zenodo.3937494	DOI	Excel file reporting the number of involved FW channels following a break in the	↗	✖

Project Datasets (0 datasets)

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 Other

Please elaborate fill in description

Is the metadata of deposited data accessible through open access? * Yes No

* mandatory fields

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

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 for a grant management system. The 'Results' tab is highlighted with a red box. Below the navigation bar, there is a section for 'Results' with a checkbox 'There is no result for this project yet'. Below this, there are instructions and examples for reporting results. A table below shows a list of results with columns for Name, Result type, Key results (RER), Description of high potential, Audience or target group, Steps undertaken towards exploitation, and Market maturity.

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)	Actions
a	LEARN: Learning and training (learning n	High scientific potential	ssssss	Researchers	Prototyping in laboratory environment	Not yet existing and not clear if market	X
test2	SER: Service (new or improved)	High societal potential (other than clima High policy or regulatory potential	Insert description	Citizens	Feasibility study Business plan	Emerging: growing demand, scarce suppl	X

The screenshot shows the 'Project Continuous Report' interface for a grant management system. The 'Other Results' tab is highlighted with a red box. Below the navigation bar, there is a section for 'Other Results' with a checkbox 'This project does not currently have any other results'. Below this, there are instructions and examples for reporting other results. A table below shows a list of other results with columns for Type of result, Description, Type of PID (if available), PID (if available), and URL to repository landing page for the result service/webpage hosting the result (if available).

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	test 1	It doesn't underpin publication	Other		URL link	X

The screenshot shows the 'Add Other Result' form. It includes fields for 'Type of result', 'Description', 'Type of Persistent Identifier, PID', 'Insert PID reference (if available)', 'Insert PID reference of the publication', 'URL to repository landing page for the result service/webpage hosting the result (if available)', and 'What license is the result licensed under?'. A dropdown menu is open, showing options: Software, Workflow, Protocol, Prototype, and Other.

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’

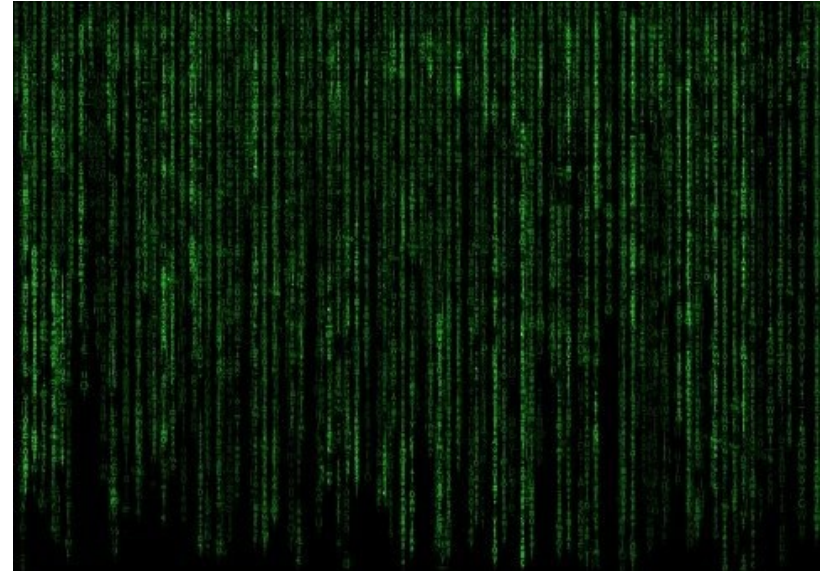
Publications

- 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)



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)



Writing tips

- Be as specific as possible
- Make it easy for the project officer to find all the information
- 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)	Mandatory
Measures to ensure reproducibility of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	Mandatory
Open access to research outputs through deposition in trusted repositories	<ul style="list-style-type: none"> Open access to publications Open access to data Open access to software, models, algorithms, workflows etc. 	<ul style="list-style-type: none"> Mandatory for peer-reviewed publications Mandatory for research data but with exceptions ('as open as possible...') Recommended for other research outputs
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>

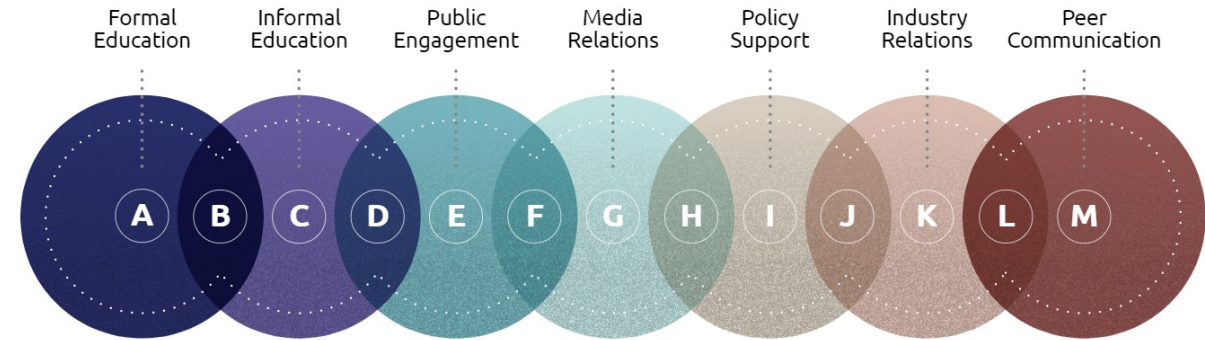
Pre-prints

- 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

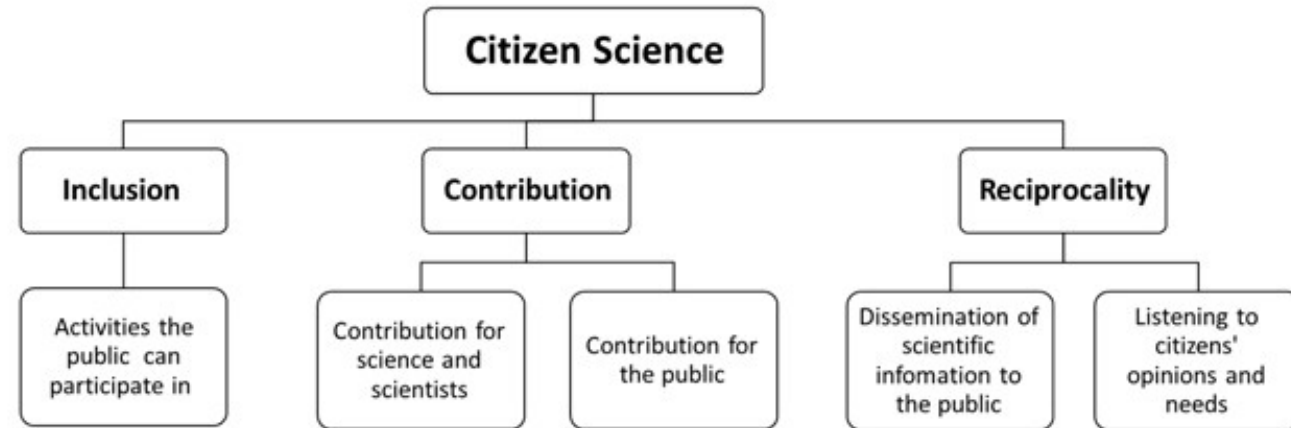


Pompea & Russo (2020). The role of astronomers in the astronomy education ecosystem. <https://doi.org/10.48550/arXiv.2011.11350>



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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