EUTOPIA TRAIN
Transforming Research and Innovation

Open Science in Horizon Europe

Training for EUTOPIA postdoctoral fellows

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Agenda

Block	Topic	Approx. duration
1	**Introduction to the workshop & tour de table**	10
2	**General requirements and how it works in a proposal**	15
	Q&A/discussion	15
3	**Focus on FAIR research data management & Open access requirements**	15
	Short brainstorm exercise in groups	20
4	**Focus on other Open Science practices**	15
	Short brainstorm exercise in groups	20
5	**Wrap up**	10

Objectives of today

You will gain awareness of…

…Open science requirements in Horizon Europe and where to apply them during a project lifecycle.

…basic concepts in scholarly publishing, research data management, and other Open Science.

…Open Science services and support across EUTOPIA universities.

You will gain some practical knowledge how to…

…find information and guidance on Open Science in Horizon Europe.

…use Horizon Europe templates and develop a basic Open Science strategy.

1. General requirements and how it fits in a proposal

Sources and further reading

European Commission

- Horizon Europe Regulation (link)
- Annotated Model Grant Agreement (link)
- Proposal template RIA/IA (link)
- DMP template (link)
- (ERC work programmes)
- Programme guide (link)

Guidance resources

- "A guide to Open Science in Horizon Europe" (link)
- POLITO guidance (link)
- Ghent University (link)
- KU Leuven (link)
- EUTOPIA (forthcoming)

The programme guide provides a lot of information about different Open Science practices that can be relevant for any type of project.

Legal basis

Article 14

Open science

1. The Programme shall encourage open science as an approach to the scientific process based on cooperative work and diffusing knowledge, in particular in accordance with the following elements which shall be ensured in accordance with Article 39(3) of this Regulation:

(a) open access to scientific publications resulting from research funded under the Programme;

(b) open access to research data, including those underlying scientific publications, in accordance with the principle 'as open as possible, as closed as necessary'.

2. The principle of reciprocity in open science shall be promoted and encouraged in all association and cooperation agreements with third countries, including agreements signed by funding bodies entrusted with the indirect management of the Programme.

3. Responsible management of research data shall be ensured in line with the principles 'findability', 'accessibility', 'interoperability' and 'reusability' (the 'FAIR principles'). Attention shall also be paid to the long-term preservation of data.

4. Other open science practices shall be promoted and encouraged, including for the benefit of SMEs.

Source: http://data.europa.eu/eli/reg/2021/695/oj

(7) The concepts of 'open science', 'open innovation' and 'open to the world' should ensure excellence and the impact of the Union's investment in R&I, while safeguarding the Union's interests.

(8) Open science, including open access to scientific publications and research data, as well as optimal dissemination and exploitation of knowledge have the potential to increase the quality, impact and benefits of science. They also have the potential to accelerate the advancement of knowledge by making it more reliable, efficient and accurate, more easily understood by society and responsive to societal challenges. Provisions should be laid down to ensure that beneficiaries provide open access to peer-reviewed scientific publications. Likewise, it should be ensured that beneficiaries provide open access to research data following the principle 'as open as possible, as closed as necessary', while ensuring the possibility of exceptions taking into account the legitimate interests of the beneficiaries. More emphasis should in particular be given to the responsible management of research data, which should comply with the principles of 'findability', 'accessibility', 'interoperability' and 'reusability' (the 'FAIR principles'), in particular through the mainstreaming of data management plans. Where appropriate, beneficiaries should make use of the possibilities offered by the European Open Science Cloud (EOSC) and the European Data Infrastructure and adhere to further open science principles and practices. Reciprocity in open science should be encouraged in all association and cooperation agreements with third countries.

Towards scientific impact	Short-term	Medium-term	Longer-term
Fostering diffusion of knowledge and open science	Shared knowledge - Share of research outputs (open data/ publication/software etc.) resulting from the Programme shared through open knowledge infrastructures	Knowledge diffusion - Share of open access research outputs resulting from the Programme actively used/cited	New collaborations - Share of Programme beneficiaries which have developed new transdisciplinary/transsectoral collaborations with users of their open access research outputs resulting from the Programme

Requirements of Horizon Europe

What?	How?	Mandatory in all calls/recommended	Novelty
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended	New
Research output management	Data management plan (DMP)	**Mandatory**	**Reinforced from H2020**
Measures to ensure reproducibility of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	**Mandatory**	**Reinforced from H2020**
Open access to research outputs through deposition in trusted repositories	Open access to publications	**Mandatory** for peer-reviewed publications (including books for ERC projects)	**Reinforced from H2020**
	Open access to data	**Mandatory** for research data but with exceptions ('as open as possible…')	
	Open access to software, models, algorithms, workflows etc.	Recommended for other research outputs	New
Participation in open peer-review	Publishing in open peer-reviewed journals or platforms	Recommended	New
Involving all relevant knowledge actors	Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)	Recommended	**Reinforced from H2020**

Source: Alea Lopez de San Roman, Dagmar Meyer, Emilie Hermans, & Ellen Leenarts. (2021, September 22). Horizon Europe train-the-trainer workshop. Open Science Fair 2021 (OSFair2021). Zenodo. https://doi.org/10.5281/zenodo.5549524

Possible synergies between them

Some areas may yield synergies that can strenghten your proposal. Data management measures for instance could go hand in hand with the required documentation for validation, access to the data itself and software.

What?	How?	Mandatory in all calls/recommended	Note
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended	New
Research output management	Data management plan (DMP)	**Mandatory**	**Reinforced from H2020**
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Possible synergies between them

Likewise, publishing in specific venues could allow you to fulfill the Open Access requirements and score for additional practices such as early sharing (preprints) or open peer review. New article formats such as software or data papers could bridge different areas, too.

What?	How?	Mandatory in all calls/recommended	Note
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended	New
Research output management	Data management plan (DMP)	**Mandatory**	**Reinforced from H2020**
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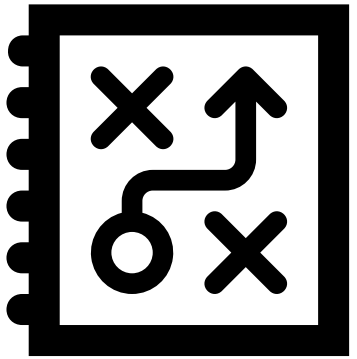
Where does it have to go?



In the methodology you need to address both:
1) How you will comply with the **mandatory practices**
2) How you will adopt **recommended practices**

While MSCA and ERC proposals might have a different structure, the basic requirements for data management and open access publishing still apply. In any case you should consult the proposal templates and other reference documents carefully.

Proposal for: RIA/IA/CSA/~~MSCA/ ERC~~

In the proposal

in the **List of Achievements**:
5 relevant outputs (publications, data,…) openly accessible + persistent identifier + «as open as possible»

In the project **methodology**
1) Embedded Open Science practices
2) FAIR data management + DMP schema (Deliverable M6)

Maximizing impact using Open Science (OS is among key pathway indicators) + schema of Dissemination Plan (Deliverable M6)

Open science practices/skills to evaluate **quality of implementation and consortium capacity**

List of Achievements
Template Part A

Excellence
Template Part B

Impact
Template part B

Quality of implementation
Template part B

During the project

Deposit+ immediate access (zero embargo + CC BY) =
1. Open Research Europe
2. OA journal
3. Tradtional journal [retaining rights]

1. Data management according to **FAIR principles**
2. Data and other outputs «**as open as possible, as closed as necessary**»
3. Data Management Plan by M6

Information on outputs/tools and **access** to data/results for **validation of research**
Other early & open sharing practices etc.

Publications

FAIR data

Reproducibility & other

Proposal will be evaluated on
a) how it will apply recommended practices and
b) how it will be compliant with mandatory practices.

Excellence section (Part B)

Open science practices

1 page on integration of Open Science practices in the work

NB: not required but justify if you don't think they're relevant

Examples

- Early & open sharing
- Research output management
- Measures to ensure reproducibility
- Open access to outputs
- Open peer review
- Involvement of knowledge actors, e.g. citizen science, co-creation

NB: no 'outreach' actions, they go under dissemination

Research data management and "other outputs"

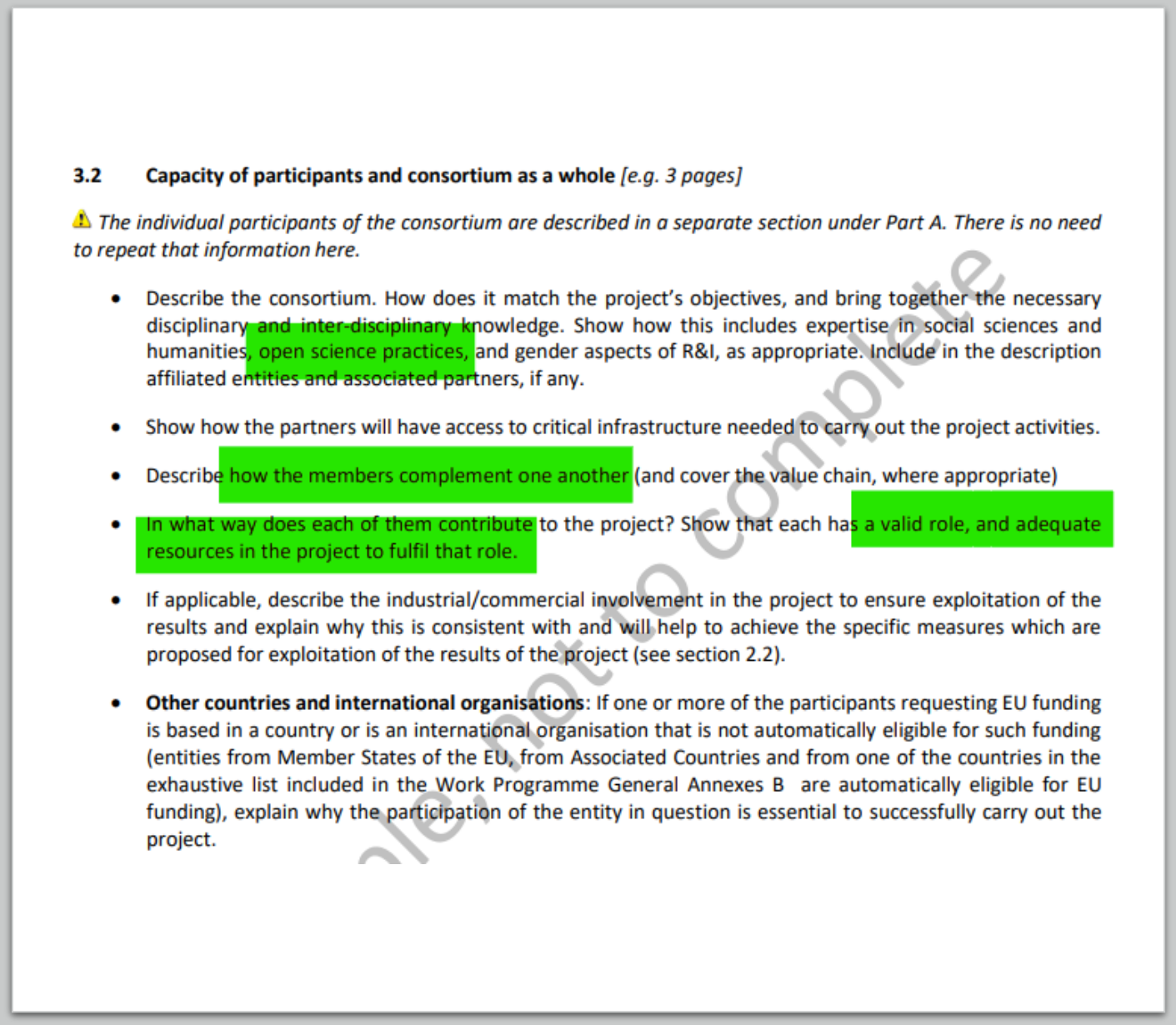
1 page on how data (research outputs) will be made FAIR, addressing

- Types of data/research outputs and size
- Findability of data/research outputs (repositories and PIDs)
- Accessibility of data/research outputs
- Interoperability of data/research outputs (standards, formats -> reproducibility measures)
- Reusability of data/research outputs (licences, software needs -> reproducibility measures)
- Curation and storage/preservation costs

NB: publications not included here

Quality of implementation (Part B)

- Expertise in Open Science practices at a specific partner can be emphasised here.
- This can be useful, e.g., if a given partner has special knowledge and/or staff responsible for research data management and FAIR research data that it will share or make use of.
- Availability of infrastructure for data storage and archiving (e.g., institutional repository) is another point potentially to mention here.



3.2 Capacity of participants and consortium as a whole *[e.g. 3 pages]*

⚠ *The individual participants of the consortium are described in a separate section under Part A. There is no need to repeat that information here.*

- Describe the consortium. How does it match the project's objectives, and bring together the necessary disciplinary and inter-disciplinary knowledge. Show how this includes expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate. Include in the description affiliated entities and associated partners, if any.
- Show how the partners will have access to critical infrastructure needed to carry out the project activities.
- Describe how the members complement one another (and cover the value chain, where appropriate)
- In what way does each of them contribute to the project? Show that each has a valid role, and adequate resources in the project to fulfil that role.
- If applicable, describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project (see section 2.2).
- **Other countries and international organisations**: If one or more of the participants requesting EU funding is based in a country or is an international organisation that is not automatically eligible for such funding (entities from Member States of the EU, from Associated Countries and from one of the countries in the exhaustive list included in the Work Programme General Annexes B are automatically eligible for EU funding), explain why the participation of the entity in question is essential to successfully carry out the project.

Achievements (Part A)

- EC aims to incentivize a broad range of open outputs also in the way they evaluate their own proposals.
- Please note that “open access” can also mean a version of an otherwise closed article deposited in an institutional repository (Green OA)
- Reviewers are asked to “not evaluate based on the Journal Impact Factor of the venue they are published in” (Programme guide). This is where the short qualitative assessment by the partner is important.

List of up to 5 publications, widely-used datasets, software, goods, services, or any other achievements relevant to the call content.

Type of achievement	**Short description**
[Publication] [Dataset] [Software] [Good] [Service] [Other achievement]	Key elements of the achievement, including a short qualitative assessment of its impact and (where available) its digital object identifier (DOI) or other type of persistent identifier (PID). Publications, in particular journal articles, are expected to be open access. Datasets are expected to be FAIR and ‘as open as possible, as closed as necessary’.

Specific conditions for some calls

Public emergencies, reproducibility

Open science: additional practices

Where the call conditions impose additional obligations regarding open science practices, the beneficiaries must also comply with those.

~~Where the call conditions impose~~ additional obligations regarding the validation of scientific publications, the beneficiaries must provide (digital or physical) access to data or other results needed for validation of the conclusions of scientific publications, to the extent that their legitimate interests or constraints are safeguarded (and unless they already provided the (open) access at publication).

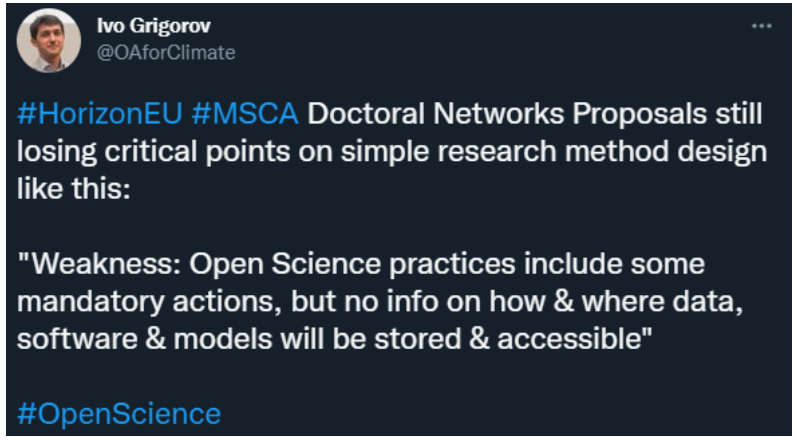
~~Where the call conditions impose~~ additional open science obligations in case of a public emergency, the beneficiaries must (if requested by the granting authority) immediately deposit any research output in a repository and provide open access to it under a CC BY licence, a Public Domain Dedication (CC 0) or equivalent. As an exception, if the access would be against the beneficiaries' legitimate interests, the beneficiaries must grant non-exclusive licenses — under fair and reasonable conditions — to legal entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions. This provision applies up to four years after the end of the action (see Data Sheet, Point 1).

EOSC

Legal and financial set-up of the Grant Agreements	The rules are described in General Annex G. The following exceptions apply: Beneficiaries will be subject to the following additional dissemination obligations: Beneficiaries must make proactive efforts to freely share, in a timely manner and as appropriate, all relevant results with the other grants awarded from the same call topic, and with the EOSC Partnership[41]. Beneficiaries must acknowledge and incorporate these obligations in the proposal, outlining the efforts they will make towards meeting them, and in Annex I to the Grant Agreement. Beneficiaries will be subject to the additional exploitation obligations: Beneficiaries must make all relevant results generated in the action available for re-use, through a well-defined mechanism, to the EOSC Partnership. Beneficiaries must acknowledge and incorporate these obligations in the proposal, outlining the efforts they will make towards meeting them and in Annex I to the Grant Agreement.

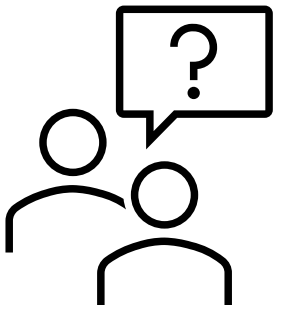
https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf

Where does it count?

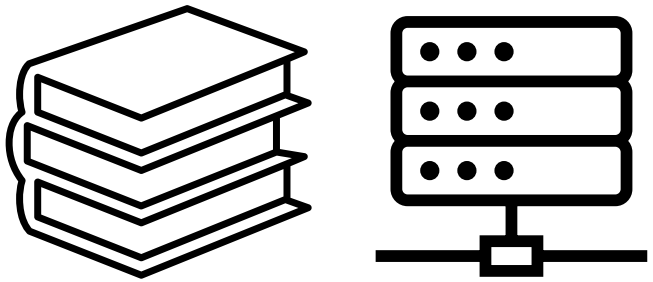


- Evaluation of specific practices as part of excellence
  - "Soundness of the proposed methodology, including the underlying concepts, models, assumptions, inter-disciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices, including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate." (source)
- Qualiy of implementation – consortium as a whole
- Impact - for the management of outputs and engagement with stakeholders
- *NB: evaluation for ERC proposals does not explicitly take Open Science into account as part of the excellence section*

Questions?



3. FAIR research data management & Open access requirements

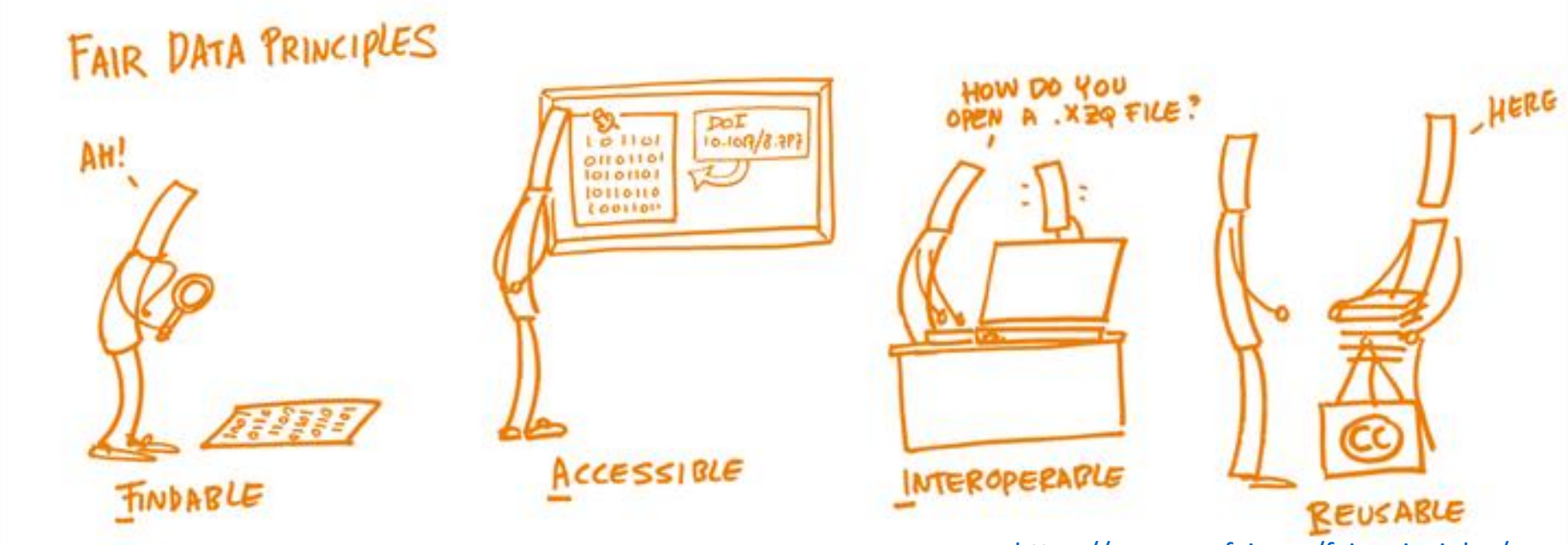


Evolution from H2020

- No opt-out from Research Data Management requirements
- FAIR data is the default
- Short DMP at proposal stage and DMP by month 6
- Findability via trusted repositories
- Information is given on any output or tool needed to validate or reuse the data
- Data underpinning a scientific publication should be deposited at the latest at the time of publication and in line with standard community practices.

- *No Open Data requirement: "as open as possible, as closed as necessary"* (exceptions may apply: data protection, privacy, trade secrets, IPR, confidentiality, security etc.)

FAIR data



https://www.go-fair.org/fair-principles/

In a nutshell:

- Use a trusted/certified repository and persistent identifiers
- Use controlled vocabularies/ontologies and existing (meta)data standards/formats
- Use rich metadata, documentation (.readme)
- Use licenses that allow re-use

Planning the implementation through Data Management Plan (DMP) and using it as a living document.

Proposal DMP

Research data management and management of other research outputs:

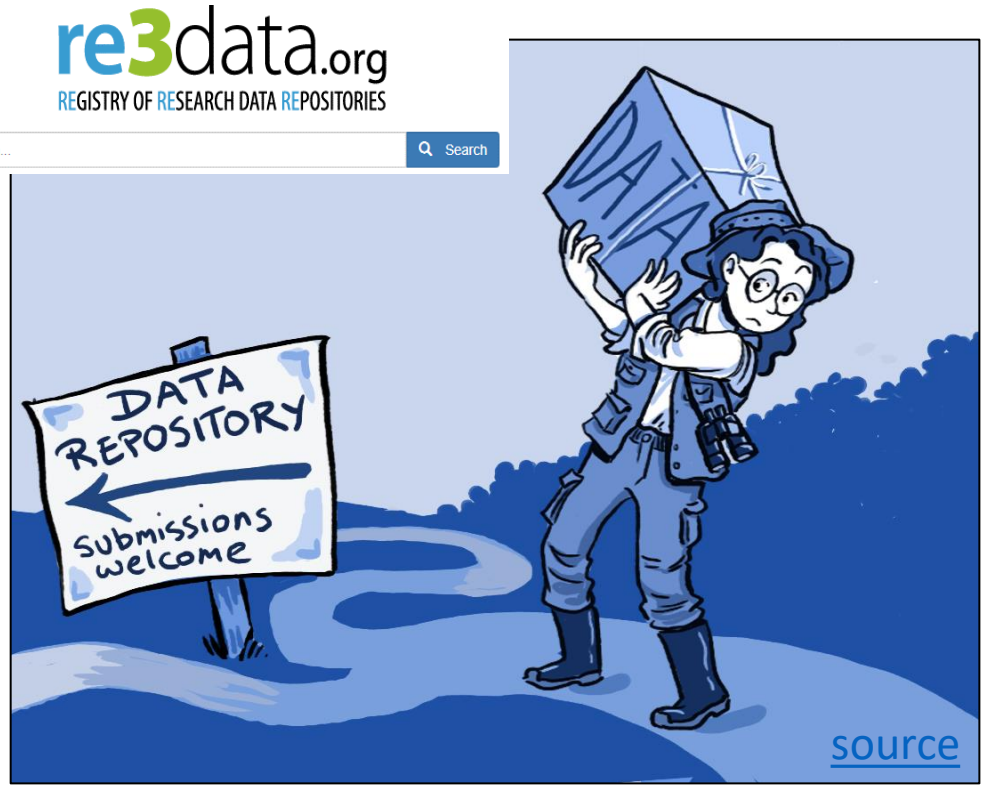
Applicants generating/collecting data and/or other research outputs (except for publications) during the project must provide maximum 1 page on how the data/ research outputs will be managed in line with the FAIR principles (Findable, Accessible, Interoperable, Reusable), addressing the following (the description should be specific to your project): *[1 page]*

- **Types of data/research outputs** (e.g. experimental, observational, images, text, numerical) and their estimated size; if applicable, combination with, and provenance of, existing data.
- **Findability of data/research outputs:** Types of persistent and unique identifiers (e.g. digital object identifiers) and trusted repositories that will be used.
- **Accessibility of data/research outputs:** IPR considerations and timeline for open access (if open access not provided, explain why); provisions for access to restricted data for verification purposes
- **Interoperability of data/research outputs:** Standards, formats and vocabularies for data and metadata.
- **Reusability of data/research outputs**: Licenses for data sharing and re-use (e.g. Creative Commons, Open Data Commons); availability of tools/software/models for data generation and validation/interpretation /re-use.
- **Curation and storage/preservation costs**; person/team responsible for data management and quality assurance.

The costs for data management (staff, storage etc.) are eligible to be included in the project budget.

Trusted repositories and vocabularies

- Ideally with a **certification**, but not necessarily required.
- **Persistent Identifiers** for data (e.g., DOIs), **ORCID**/ResearcherID are required; organization ID (e.g., ROR) and grant ID recommended
- **Open Metadata** is required (CC0) and must be FAIR itself
- Institutional, general purpose or discipline specific repositories are all permitted.
- Identify repositories via:
  - https://www.re3data.org/
  - https://fairsharing.org/search?fairsharingRegistry=Database
- Identify data standards and vocabularies via:
  - https://fairsharing.org/search?fairsharingRegistry=Standard
  - http://rd-alliance.github.io/metadata-directory/standards/
  - https://www.dcc.ac.uk/guidance/standards/metadata



Zenodo

B2SHARE

Inter-university Consortium for Political and Social Research

Pangaea

Dryad

Validation and re-use requirements

- **Data**. Information must be given via the repository about any research output or any other tools and instruments needed for the re-use or validation of research data. Research outputs, tools and instruments may include data, software, algorithms, protocols, models, workflows, electronic notebooks and others. Information must 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. (AGA, p159)
- **Publications**: Information must be given via the repository (or via the copy of the publication deposited in the repository) about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication. Research outputs, tools and instruments may include 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. (AGA, p156)

➢ See the link to other open science practices (-> early sharing, reproducibility, open access to other outputs)

- "Via the repository"
  - Readme files and other supplements
  - Metadata fields: "Description" and "notes" (where feasible)
  - Metadata fields: "Related identifiers" and "references" (where feasible)
- "Via the copy of the publication" -> e.g., methods section, annexes, supplementary files

Legal aspects and licenses

	YOU CAN			YOU MUST	YOU MAINTAIN
	Share	Use for	Adapt	Attribute	Copyright,
	(copy and redistribute the material in any medium or format)	commercial purposes	(remix, transform and build upon the material)	Give appropriate credit, provide a link to the license, and indicate if changes were made.	database rights
CC BY	Yes	Yes	Yes	Yes	Yes
CC BY NC	Yes	No	Yes	Yes	Yes
CC BY ND	Yes	Yes	No If you remix, transform, or build upon the material, you may not distribute the modified material.	Yes	Yes
CC BY NC ND	Yes	No	No	Yes	Yes
CC0	Yes	Yes	Yes	No	No: Waived

Allowed for:
Articles, books/monographs, databases (when open)
Books/monographs
Books/monographs
Books/monographs
Data (when open), software, metadata

- There are other ‘open’ licenses that might be suitable.
- Restricted/closed data can be shared using bespoke license/agreements.

Publishing in OPEN ACCESS

General requirements for Horizon Europe

- Plan S aligned (https://www.coalition-s.org) – Open Access to scientific publications is a must
- Immediate deposit of Author Accepted Manuscript or Version of Record in a repository in Open Access – for peer-reviewed publications and long-text formats
- Copyright retention with the author: https://www.coalition-s.org/resources/rights-retention-strategy/
- Licenses: CC-BY or equivalent for acticles; monographs/long formats can use CC non-commercial/no-derivative licences
- Not eligible: Open Access fees for hybrid journals

What options are there to publish *articles*?

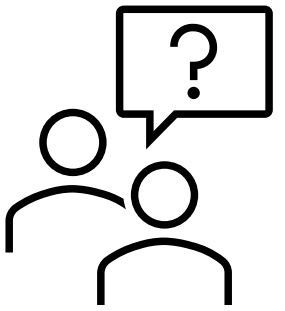
A. Full OA journal with or without fees (Gold/Diamond OA)
B. Open Research Europe – publishing platform supported by EC, free for HEU & H2020 researchers. Supports Open Peer Review and many different article types. (Gold OA)
C. Closed journal, with the Version of Record/Author Accepted Manuscript in the repository. (Green OA)
D. Hybrid -> article fees not reimbursed, but C still applies.

In all cases, authors must retain intellectual property rights and deposit a version in a repository!

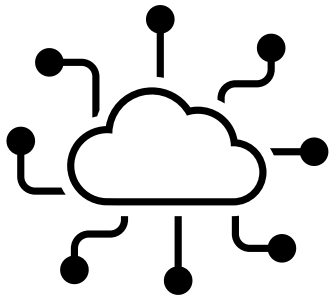
-> https://journalcheckertool.org/ (BETA version)

-> https://doaj.org/

Questions and exercise



4. Focus on other Open Science practices



Overview of practices mentioned in Horizon Europe

- **Early and open sharing of research**
  - Preregistration, registered reports, preprints, etc.
- Research output management
  - Data management plan (DMP)
- **Measures to ensure reproducibility of research outputs**
  - Information on outputs/tools/instruments and access to data/results for validation of publications
- **Open access to software, models, algorithms, workflows etc.**
- **Participation in open peer-review**
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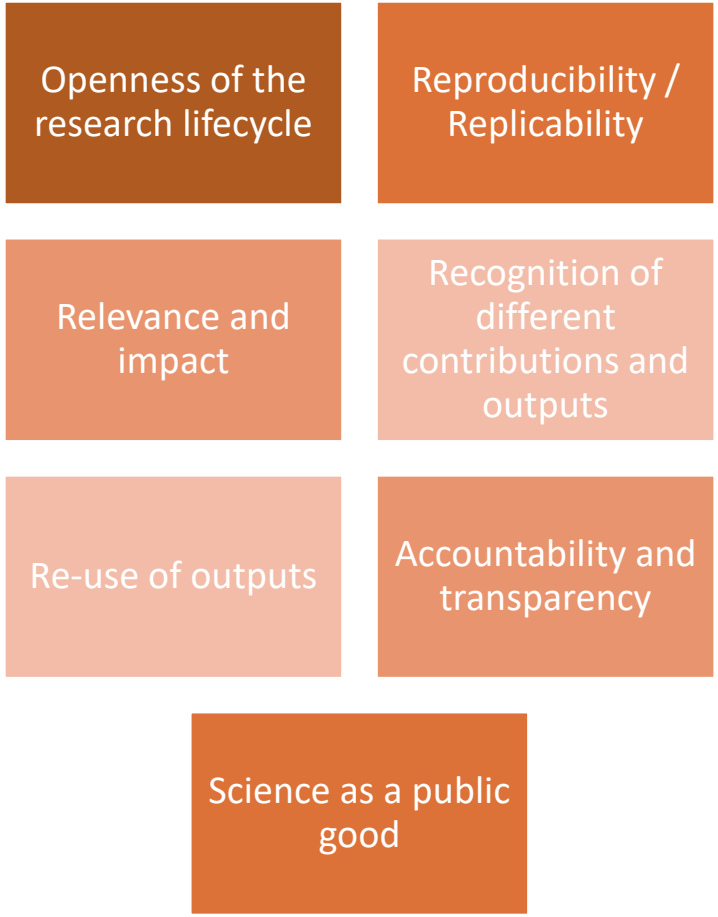
  - Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)



Research software and code

- Repositories for Software
  - GitHub - integrates with Zenodo: https://docs.github.com/en/repositories/archiving-a-github-repository/referencing-and-citing-content
  - Savannah
  - SourceForge
  - Launchpad
- Software papers/journals
  - Journal of Open Research Software: https://openresearchsoftware.metajnl.com/
  - PeerJ Computer Science: https://peerj.com/computer-science
  - SoftwareX (Elsevier): https://www.journals.elsevier.com/softwarex
  - Software Impacts (Elsevier): https://www.journals.elsevier.com/software-impacts
  - The Journal of Open Source Software: https://joss.theoj.org
- "Use of appropriate software licenses, such as those listed as free by the Free Software Foundation and listed as open source by the Open Source Initiative, is strongly recommended."
- Some food for though for FAIR and Open research software
  - From FAIR research data toward FAIR and open research software: https://www.degruyter.com/document/doi/10.1515/itit-2019-0040/html?lang=de
  - Towards FAIR principles for research software: https://content.iospress.com/articles/data-science/ds190026
  - Taking a fresh look at FAIR for research software: https://www.sciencedirect.com/science/article/pii/S2666389921000362

"The core element of a sufficiently dynamic understanding of data quality is the precise documentation and disclosure of the measures, tools, the research software used and the procedural steps for generating, processing and making the data available." (https://rfii.de/?p=4203, p72)

software carpentry

http://software-carpentry.org/ for workshop ideas

Software Sustainability Institute

https://www.software.ac.uk/

Software Heritage
THE GREAT LIBRARY OF SOURCE CODE

https://www.softwareheritage.org/

Types of Peer Review

BLIND
Single blind: Reviewers know the authors' identities, but reviewer names are protected.
Double-blind: Reviewer and author names are protected.

SIGNED
Reviewers sign their comments. Authors receive reviewer names in the decision letter.

COLLABORATIVE
Reviewers collaborate and submit joint comments, or in some cases confer with authors and editors during the review process.

PORTABLE
Reviewers are sought by an organization or journal and shared with any journals that require them later on.

PUBLISHED
Reviewer comments and/or names are published with the article or preprint.

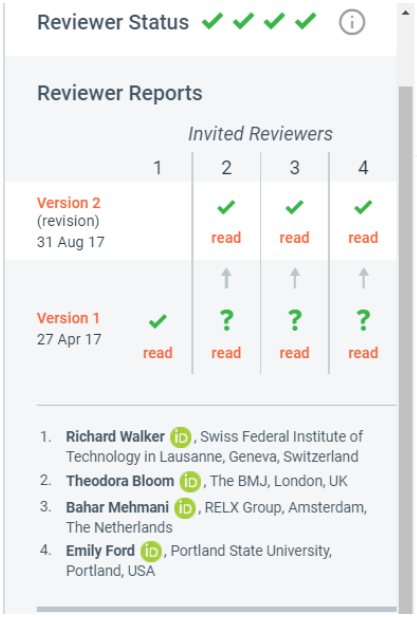
POST-PUBLICATION
After a manuscript is posted the community reviews the research in an open forum. Reviewer names are usually published with their comments.

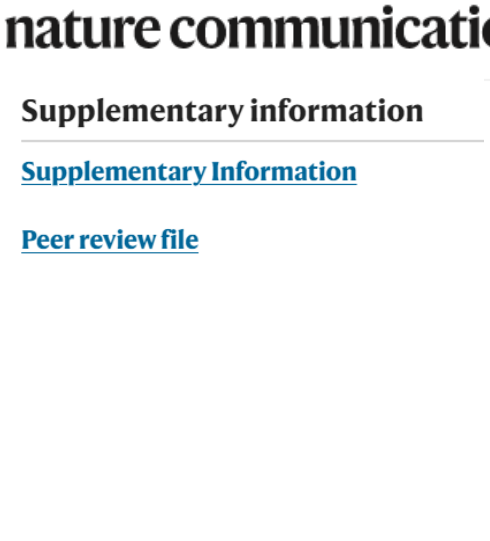
PLOS

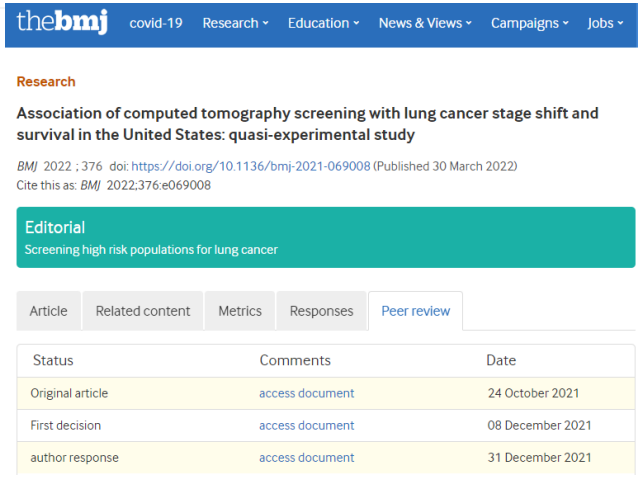
EUTOPIA TRAIN
Transforming Research and Innovation

Open Peer Review

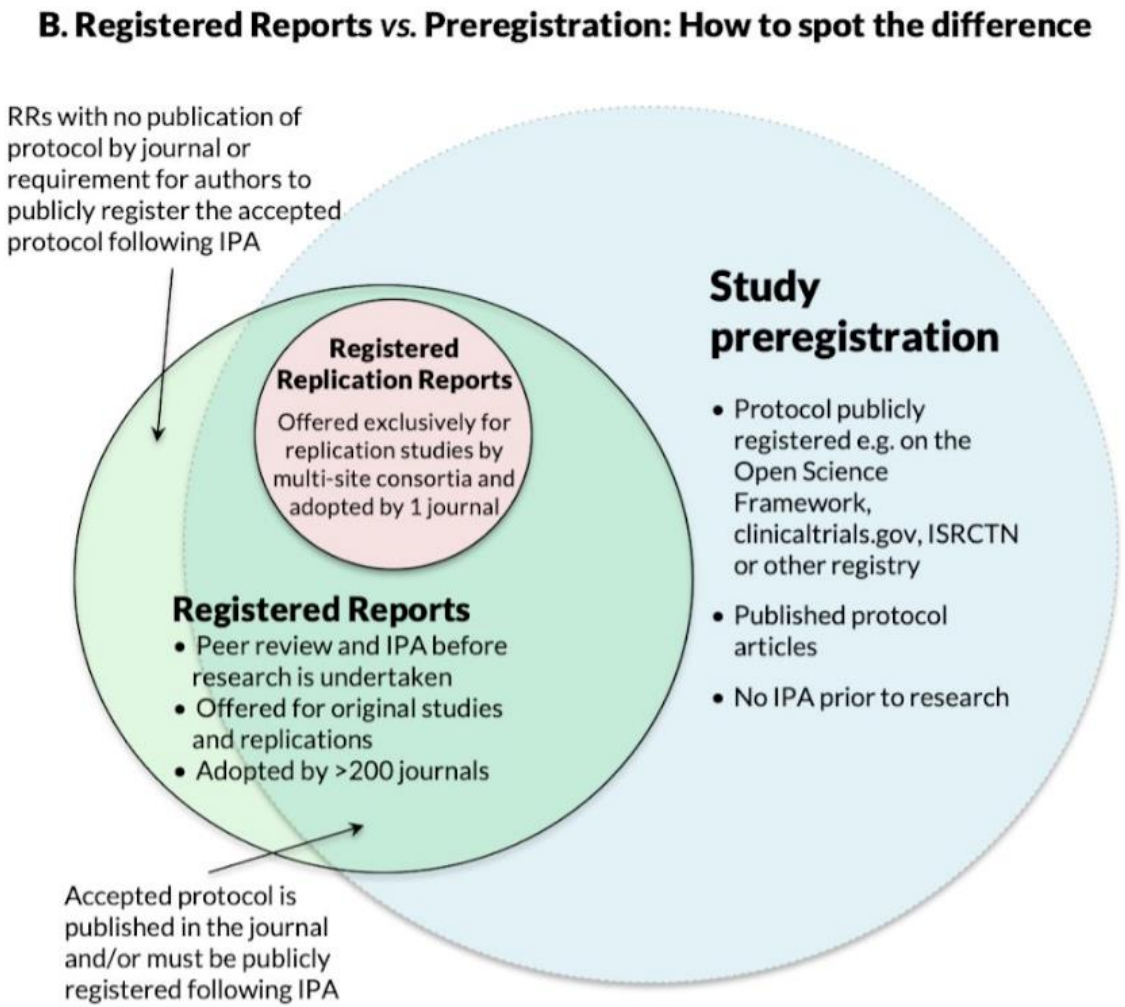
- What is open peer review? A systematic review: https://f1000research.com/articles/6-588/v2
- https://plos.org/resource/open-peer-review/
- Platforms and networks for (Open) Peer Review
  - https://publons.com/about/home/ // https://publons.com/journal/?order_by=reviews
  - https://pubpeer.com/
  - https://www.scienceopen.com/







Preregistration, workflows and protocols



Source: Chambers and Tzavella. 2020. "The Past, Present, and Future of Registered Reports." MetaArXiv. February 10. doi:10.31222/osf.io/43298.

- Pre-registration and Registered Reports: a Primer from UKRN (https://doi.org/10.31219/osf.io/8v2n7)
- PhD on Track: https://www.phdontrack.net/open-science/preregistration/
- Preregistration
  - https://osf.io/ (domain-general preregistration repository service with multiple formats for preregistration) and https://www.cos.io/initiatives/prereg for more
  - https://aspredicted.org/ (domain-general registry service providing standardised preregistration template)
  - Preclinicaltrials.eu (preclinical animal study protocols)
  - PROSPERO (https://www.crd.york.ac.uk/prospero/) (health and social care)
  - Evidence in Governance and Politics (https://egap.org/registry-0/) (political sciences)
  - Registry for International Development Impact Evaluations (https://ridie.3ieimpact.org/) (social sciences)
  - PLOS https://plos.org/open-science/preregistration/
- Registered reports
  - See https://www.cos.io/initiatives/registered-reports for a list of journals
  - What's next for Registered Reports? (https://www.nature.com/articles/d41586-019-02674-6)
- Sharing workflows and protocols
  - https://protocolexchange.researchsquare.com/ (open repository for sharing scientific research protocols) and
  - https://www.protocols.io/ (Platform for data management and protocol sharing
  - http://www.myexperiment.org/workflows

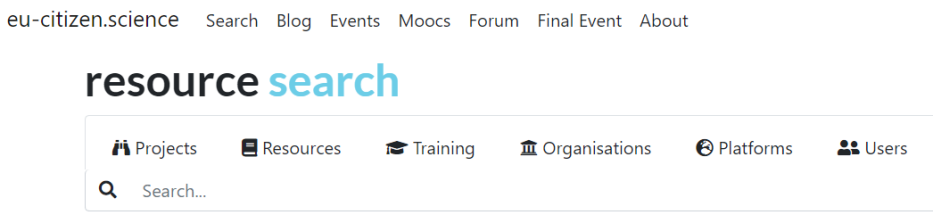
Other early sharing

- Preprint servers (examples)
  - Zenodo – multidisciplinary;
  - Preprints - multidisciplinary
  - bioRxiv - Life sciences;
  - medRxiv – Medicine and health sciences;
  - PsyArxiv - Behavioural sciences;
  - SocArXiv - Social sciences and humanities;
  - LawArXiv – Law;
  - ArXiv - o.a. physics, mathematics, computer science;
- Post-publication peer review
  - Open Research Europe (https://open-research-europe.ec.europa.eu/)
  - F1000 (https://f1000research.com/)
  - PeerJ (https://peerj.com/)
  - https://peercommunityin.org/
- Preregistration and protocols sharing etc.

Supports: Research Articles, Brief Reports, Data Notes, Method Articles, Software Tool Articles, Study Protocols, Registered Reports, Reviews, Systematic Reviews, Clinical Practice Articles, Case Reports, Case Studies, Open Letters

Involving different knowledge actors

- Three main areas according to the programme guide
  - Co-design
  - Co-creation activities
  - Co-assessment activities
- “interaction from across the quadruple helix (academia-industry-government-civil)”
- Picking up citizen science and responsible research & innovation themes (RRI) from H2020
- MOOC on RRI: https://www.coursera.org/learn/newhorrizon?action=enroll
- Quality criteria: https://citizenscience.ch/en/start/criteria



https://eu-citizen.science/resources

ecsite
EUROPEAN NETWORK
SCIENCE CENTRES & MUSEUMS

https://www.ecsite.eu/activities-and-services/resources

How to set up a participatory research agenda

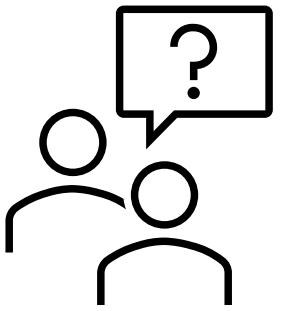
https://rri-tools.eu/

How to embed RRI in citizen science

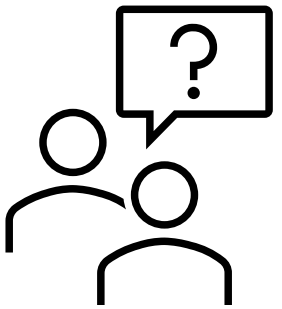
NEW HORRIZON

https://newhorrizon.eu/the-newhorrizon-project-is-over-after-4-yearspg//

Questions and exercise



Wrap-up



Thank you!