Open Science in Horizon Europe

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Open Science in Horizon Europe

*"**Open science**" means an approach to the scientific process based on open cooperative work, tools and diffusing knowledge*
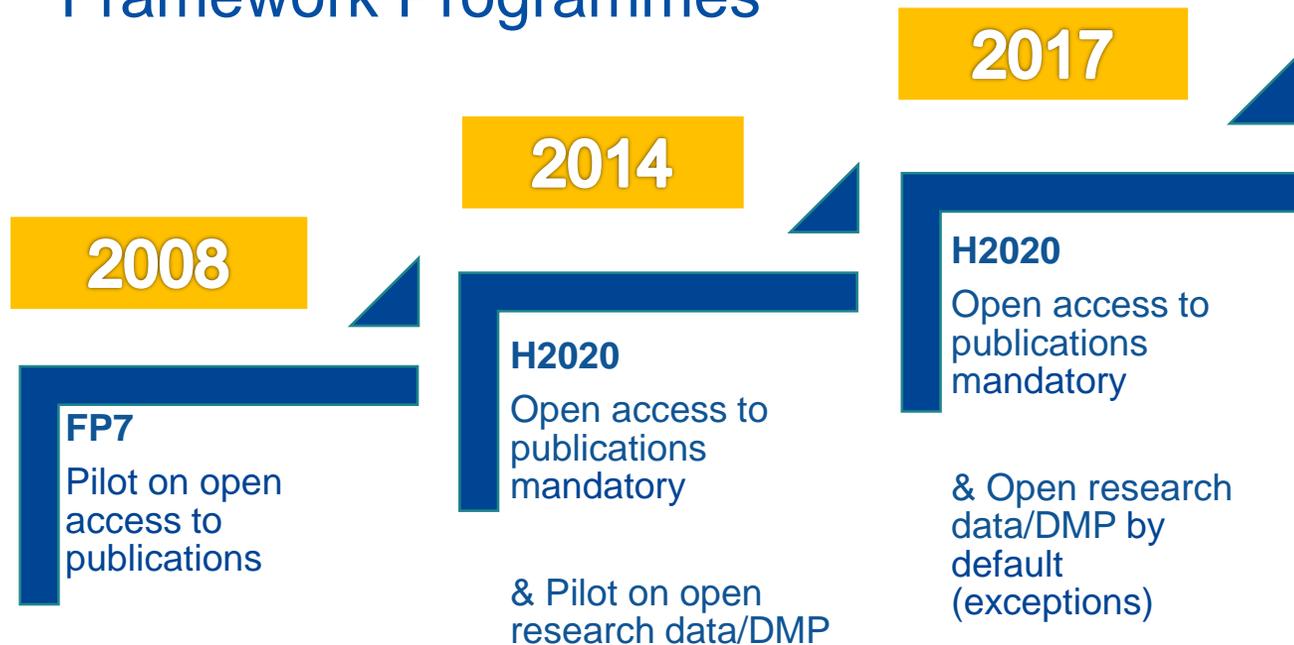
(Horizon Europe Regulation and Model Grant Agreement)

*The concepts of **Open Science**, Open Innovation, Open to the World should ensure **excellence and impact** of the Union´s investment in research and innovation, while safeguarding the Union´s interests*

(Recital 7 Horizon Europe Regulation)

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Open Science in Horizon Europe

Evolution of Open Science policies across Framework Programmes

2017

2014

2008

FP7
Pilot on open access to publications

H2020
Open access to publications mandatory

& Pilot on open research data/DMP

H2020
Open access to publications mandatory

& Open research data/DMP by default (exceptions)

Under **Horizon Europe (2021)**

- Open Science embedded across Horizon Europe

  - **Evaluation** of proposals (excellence –methodology-, quality & efficiency of implementation)

  - **Grant Agreement, Work Programmes, guidelines**

  - **Reporting**—during the project's lifetime

- Strengthening of the open access obligations and focus on responsible research data management in line with the FAIR principles

Evaluation of proposals and Open Science

"Excellence" criterion

(methodology)

"Quality and efficiency of implementation" criterion

(capacity of participants and consortium as a whole + list of achievements)

- Evaluation of the quality of open science practices

- Up to 1 page to describe Open Science practices + up to 1 page to describe research data/output management

- Explain expertise on Open Science

- List publications, software, data, etc, relevant to the project with qualitative assessment and, where available, persistent identifiers

Publications are expected to be open access; datasets are expected to be FAIR and 'as open as possible, as closed as necessary'. **Significance of publications to be evaluated on the basis of proposers' qualitative assessment** and not per Journal Impact Factor

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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 reproduciblity 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	• Open access to publications • Open access to data • Open access to software, models, algorithms, workflows etc.	• **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

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1. Open access to publications (1/2)

Beneficiaries must ensure **open access to peer-reviewed scientific publications** relating to their results. In particular, **they must ensure**:

❑ at the latest upon publication, **deposition** of the Author Accepted Manuscript or Version of Record in a trusted repository **+ immediate open access via the repository** under a Creative Commons Attribution license (CC BY) or equivalent (Creative Commons Attribution Non Commercial/Non Derivatives licenses or equivalent are allowed for long-text formats)

❑ **information** via the repository about any research output/tools/instruments needed to **validate the conclusions of the scientific publication**

Metadata must be open under a Creative Commons Public Domain Dedication (CC 0) or equivalent, **in line with the FAIR principles** and provide information about the licensing terms and persistent identifiers, amongst others.

Open access to publications (2/2)

➢ Beneficiaries (or authors) **must retain sufficient intellectual property rights** to comply with the open access requirements

➢ Publication in venue of their choice but **publication fees are reimbursable only if publishing venue is full open access** (publication fees in hybrid venues are not reimbursed)

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2. Research data management

Beneficiaries **must manage the digital research data** generated in the action responsibly, **in line with the FAIR ("Findable", "Accessible", "Interoperable", Reusable") principles** and:

- ❑ establish + regularly update a **data management plan** ('DMP') for generated (and/or collected) data

- ❑ as soon as possible and within the deadlines set out in the DMP, **deposit** the data in a trusted repository (federated in the EOSC if required in the call conditions) **+ ensure open access under CC BY, CC 0 or equivalent, following the principle 'as open as possible as closed as necessary'**

- ❑ provide information via the repository about any research output/tools/instruments needed to **re-use or validate the data**

Metadata must be open under CC 0 or equivalent (to the extent legitimate interests or constraints are safeguarded), **in line with the FAIR principles** and provide information about the licensing terms and persistent identifiers, amongst others.

3. Additional Open Science 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 <u>(digital or physical) access</u> to data or other results needed for validation of the conclusions of scientific publications, <u>to the extent that</u> 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 + provide open access to it under CC BY, CC 0 or equivalent

As an exception, if the access would be against the beneficiaries´ legitimate interests, the beneficiaries must grant nonexclusive 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.

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ERA Communication: A New ERA for R&I

[Communication](#) on a new European Research Area for Research and Innovation (September 2020)

Deepening the ERA
The Commission will: (Action 9)

- Launch, via the Horizon Europe Programme, a **platform of peer-reviewed open access publishing**;

- **analyse authors' rights** to enable sharing of publicly funded peer-reviewed articles without restriction;

- ensure a **European Open Science Cloud** that is offering findable, accessible, interoperable and reusable research data and services (Web of FAIR); and

- incentivise open science practices by improving the **research assessment system**.

Citizen Engagement
The Commission will: (Action 13)

- Organise with Member States and stakeholders Europe-wide **citizen science campaigns** to raise awareness and networking, crowdsourcing platforms and pan-European hackathons, in particular in the context of Horizon Europe Missions. The Commission will develop with Member States best practices to open up science and innovation to citizens and youth.

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Open Research Europe

- ORE is **not a repository**

- **Original** articles i.e. stemming from Horizon 2020-funded research and Horizon Europe

- **All scientific areas** of Horizon 2020 and Horizon Europe covered

- **Immediate open access**, with **content licensed for re-use**

- **Open peer review** (i.e. open reviewer identities, published reviews, post-publication comments)

- Each article has a **dedicated metrics** page

- 'Super-networked' and '**minable**': PIDs, connection to repositories, open data and software, interoperable technologies, preservation of content, etc.

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Main assets of ORE for our beneficiaries

- **High-quality**, **reliable** and **efficient** publishing venue for EU research

  - Swift, explicit, accessible and **transparent** on business processes and publication policies

  - Oversight by an independent Scientific Advisory Board

- **No cost** to authors/beneficiaries, **no administrative burden**

- Venue where grantees can also publish **post-grant** the results of their work, while respecting their open access obligations

- **Fully aligned** with the European Commission policy and principles (i.e. it takes burden from researchers as it is fully compliant)

- **Absolutely <u>not</u> <u>an</u> <u>obligation</u> to use** (and it will never be)

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Copyright and open science

Copyright is a bundle of rights that protect authors on their creations + allow copyright holders to determine who, when and how will access and reuse works

Protects and **sets the conditions for "dissemination"**

An adequate copyright legislative framework and copyright management are key for open science

- **Under the ERA Communication** (Action n.9) the Commission will "analyse authors' rights to enable sharing of publicly funded peer-reviewed articles without restriction"

- **The transposition of the Copyright in the Digital Single Market Directive was due on 7 June 2021** (articles 3 & 4 on Text and Data Mining)

- **The review of the Database Directive** will be part of the upcoming «Data Act »

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Have your say!

- The roadmap and public consultation on the Data Act (including the review of the Database Directive) are open for feedback

Roadmap

FEEDBACK: OPEN

Type
Inception impact assessment
More about roadmaps

Feedback period
28 May 2021 - 25 June 2021 (midnight Brussels time)

The Commission would like to hear your views.

This roadmap is open for feedback for **4 weeks**. Feedback will be taken into account for further development and fine tuning of the initiative. The Commission will summarise the input received in a synopsis report explaining how the input will be taken on board and, if applicable, why certain suggestions can't be taken up. Feedback received will be published on this site and therefore must adhere to the feedback rules.

Give feedback ❯

Public consultation

FEEDBACK: OPEN

Feedback period
03 June 2021 - 03 September 2021 (midnight Brussels time)

The Commission would like to hear your views.

Through public consultations you can express your views on aspects of EU laws and policies before the Commission finalises its proposals.

Go to consultation ❯

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Thank you

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