Horizon Europe
Open Science is the new normal

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Open Science Is The New Normal – UiS Open Access week 2021
The European Commission and Open Science

- **2008**
  - FP7
  - OA Pilot
    - Deposit and open access

- **2014**
  - H2020
    - OA Mandatory
      - Deposit and open access
  - & ORD/DMP Pilot

- **2017**
  - H2020
    - OA Mandatory
      - Deposit and open access
  - & ORD/DMP by default (exceptions)

- **2021**
  - Horizon Europe
    - OA Mandatory
      - Deposit and open access
  - DMP in line with FAIR Mandatory
  - OD by default (exceptions)
  - & Open Science embedded

Courtesy of Victoria Tsoukala, PhD - DG RTD Open Science (Unit G4) - PUBMET 2019, Zadar, September 19th, 2019
WE ARE NO MORE DISCUSSING ABOUT THE OPPORTUNITY: OPEN SCIENCE IS THE NEW NORMAL
A change in the approach

Competition → Collaboration
In Horizon Europe the proposal is evaluated under the Open Science Perspective.

**Evaluation focus**

**What**
- Results must be managed in line with FAIR principles and as open as possible as closed as necessary.

**How**
- Methodology must show Open Science practices are embedded.

**Who**
- Single Researchers and Consortium are evaluated for their capacity to support Open Science practices.
HORIZON EUROPE LEGISLATION defines three types of impact, tracked with Key Impact Pathways:

1. Creating high-quality new knowledge
2. Strengthening human capital in R&I
3. Fostering diffusion of knowledge and Open Science
4. Addressing EU policy priorities & global challenges through R&I
5. Delivering benefits & impact via R&I missions
6. Strengthening the uptake of R&I in society
7. Generating innovation-based growth
8. Creating more and better jobs
9. Leveraging investments in R&I
Open Science Practices

Mandatory
- Required for all the calls

Desiderable for all, in some cases mandatory for specific calls

Non-mandatory
Open Science practices

- **early and open sharing** of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing)

- **research output management** including research data management

- Measures to ensure **reproducibility** of research outputs

- Providing **open access** to research outputs (e.g. publications, data, software, models, algorithms, and workflows) through deposition in trusted repositories

- Participation in **open peer-review**

- **Involving all relevant knowledge actors** including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science)
Beneficiaries must ensure OA to peer-reviewed scientific publications relating to their results.

In particular, they must ensure:

- at the latest upon publication, deposition of the AAM or VoR in a trusted repository + immediate open access via the repository under CC BY or equivalent (CC BY-NC/CC BY-ND 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 CC 0 or equivalent, in line with the FAIR principles and provide information about the licensing terms and persistent identifiers, amongst others.
Trusted Repository

- **Certified repositories** (e.g. CoreTrustSeal, nestor Seal DIN31644, ISO16363) or disciplinary and domain repositories commonly used and endorsed by the research communities. Such repositories should be recognised internationally.

- **General-purpose repositories or institutional** repositories that present the essential characteristics of trusted repositories, i.e.:
  - secure the integrity and authenticity of their contents, thus facilitating their use and re-use in the short- and long-term.
  - assign persistent unique identifiers to contents and ensure that contents are accompanied by metadata sufficiently detailed and of sufficiently high quality to enable discovery, reuse and citation and contain information about provenance and licensing; metadata are machine-actionable and standardized.
  - facilitate mid- and long-term preservation of the deposited material. They provide curation and quality assurance for the accuracy and integrity of datasets and metadata. They meet generally accepted international and national criteria for security to prevent unauthorized access and release of content.

Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the OA requirements.

Publication in venue of choosing but publication fees are reimbursable only if publishing venue is full open access (publication fees in hybrids not reimbursed).
Beneficiaries must manage the digital research data generated in the action responsibly, in line with the FAIR principles and:

• establish + regularly update a data management plan (‘DMP’) for generated (and/or collected) data; by mo 6 of project; with submission or latest by grant agreement in cases of public emergency (e.g. COVID projects)

• 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 OA 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.
Make your data FAIR

**Findable**
The data is easy to find

**Accessible**
It is clear who, when and how can access the data

**Interoperable**
Data can be integrated with other data and/or they can be easily used and read by machines

**Reusable**
Data can be reused by others in new research
Open Data is a particular kind of FAIR Data.

All Data should be FAIR.

Open Data is the default.

In case restrictions apply, access to some data can be restricted, still they should be FAIR.

**Open Data**
Data can be freely used, shared, enriched by anyone, anywhere for any purpose.

**FAIR Data**
Data follow a series of good practices to allow data access, still respecting any ethical, legal and contractual restriction.
Additional Open Science practices

- Some calls may have **additional obligations on OS practices** they must be complied with.
- **Beneficiaries must provide (digital or physical) access to data or other results** needed for validation of the conclusions of scientific publications, provided **legitimate interests safeguarded** and **unless (open) access already** provided at publication.
- Additional obligations in **cases of public emergency**
Tools are key
Open Research Europe

- It is not a Journal, it is a **publishing platform**
- The **aim** is to give researcher a venue where to publish the results of their research funded by the EC, irrespective of the perceived level of interest or novelty
- **Confirmatory or negative results**, as well as null studies are suitable
- The **scope of the Peer Review** is not to reject or accept a result but to improve its publication thanks to a collaboration effort among experts
- The **Reviewer role** is to assess whether the research is technically sound and of academic merit.
- Only H2020 and Horizon Europe results are **eligible**
- **Open Peer Review**
Excellence Criterion

Methodology

- Describe how OS practices are embedded in the methodology
- Describe research data/output management strategy
- Evaluation of the quality of open science practices
Quality of Implementation

Criterion

Capacity of participants and consortium as a whole and list of achievements

- Expertise on OS
- List relevant projects and initiatives
- List relevant infrastructures and equipments
- List publications, software, data, etc, relevant to the project with qualitative assessment and, where available, persistent identifiers
  - Publications expected to be open access
  - Datasets 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
References


[3] EU Grants AGA – Annotated Model Grant Agreement

[4] Victoria Tsoukala, April 21, 2021, Webinar: A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don’t forget the other aspects
Tusen Takk!

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