



# Recent developments in the EC policy on Open Science

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*Max Planck Digital Library*  
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# What is Open Science and why do we need it?

**Open science:** sharing knowledge, data and tools as early as possible in the research process in open collaboration with all relevant knowledge actors

- Open science has the potential to increase:
  - **Quality & efficiency of R&I**, if all the produced results are shared, made reusable, and if their reproducibility is improved
  - **Creativity**, through collective intelligence and cross-disciplinary research that does not require laborious data wrangling
  - **Trust** in the science system, by engaging both researchers & citizens

# The European Commission in the R&I context

## Policy maker

- It proposes EU legislation and monitors its implementation
- It works with the two co-legislators (European Parliament and Council)
- It invites Member States to act

## Funder

- It sets its own rules for scientific research and innovation funded by the European Commission

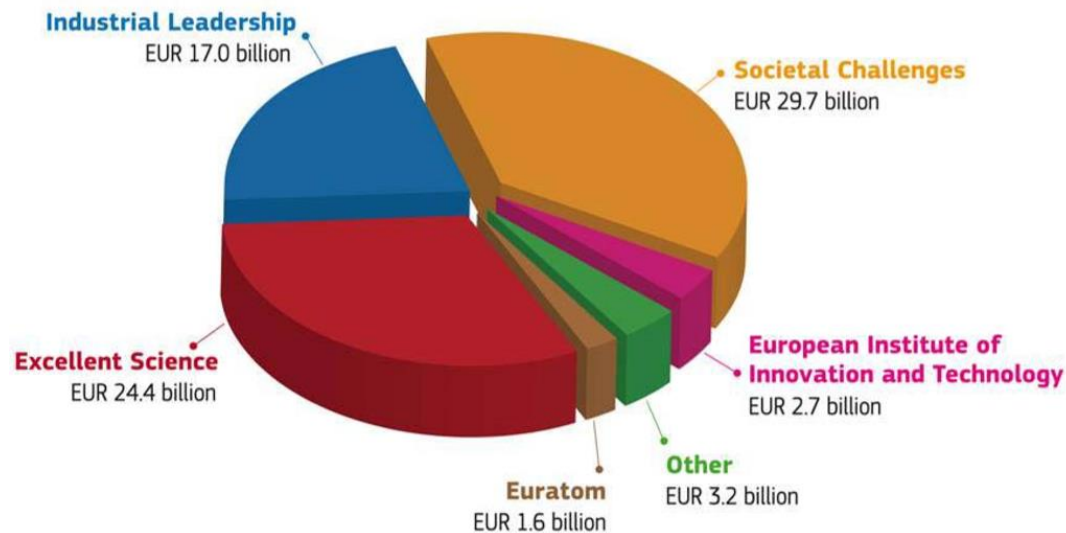
## Capacity builder

- It has research facilities (Joint Research Centre) and funds infrastructure that support EC/EU policy

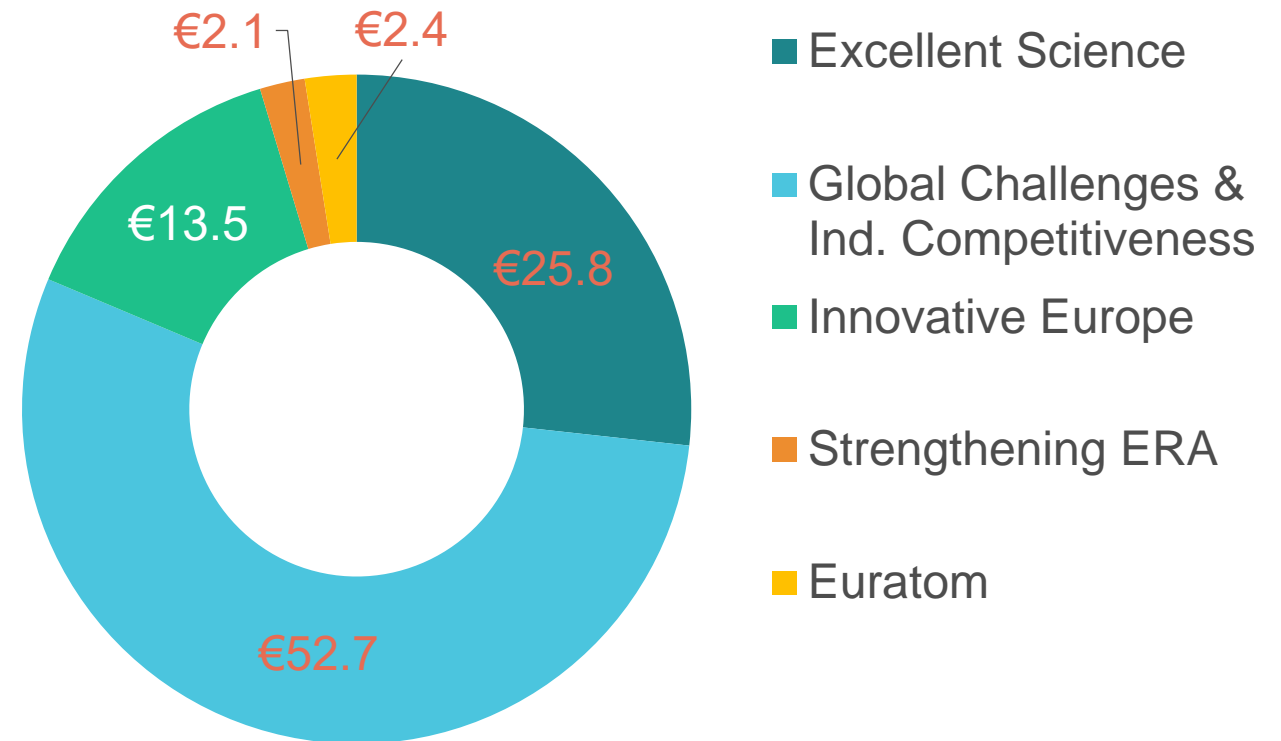
# Open Science in Horizon Europe

# Horizon 2020 & Horizon Europe

Horizon 2020: ~ €80bn



Horizon Europe: ~€95.5bn

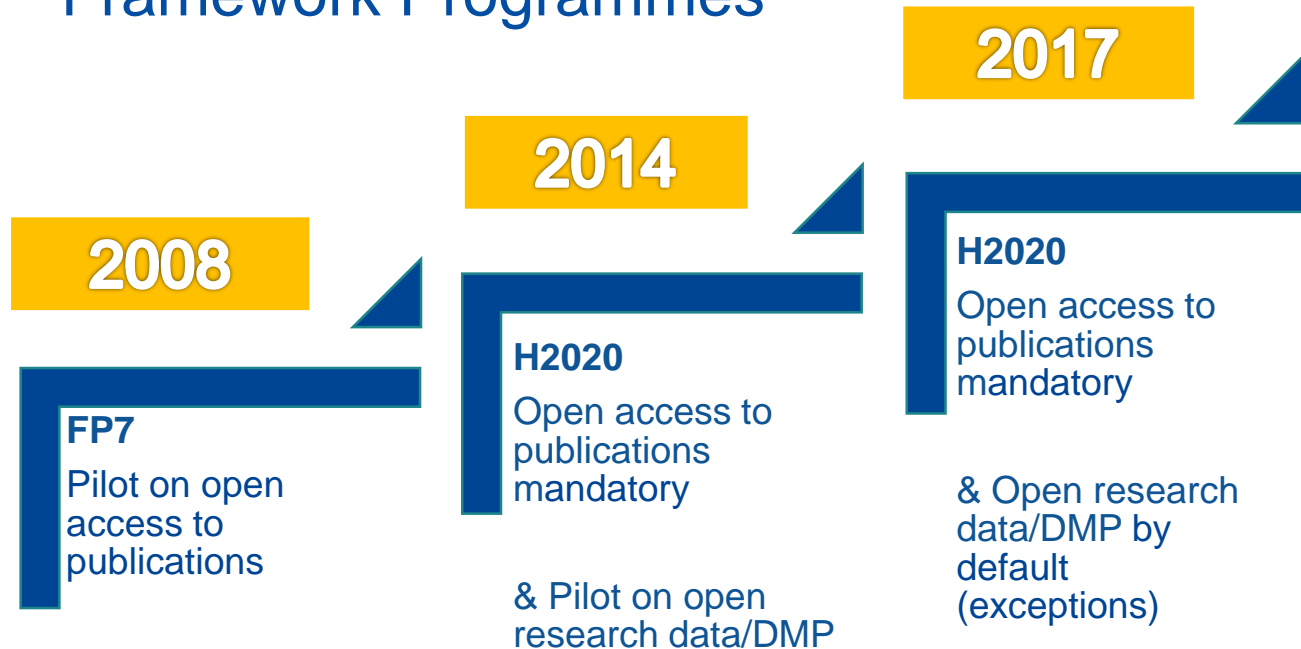


- Excellent Science
- Global Challenges & Ind. Competitiveness
- Innovative Europe
- Strengthening ERA
- Euratom

- The Commission invests heavily in Research and Innovation.
- Over **30000 H2020 projects**—Projects produce **research outputs, data, deliverables, etc.**
- It becomes increasingly important to make the **best possible use** of previous work.

# Open Science in Horizon Europe

## Evolution of Open Science policies across Framework Programmes



## 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

# 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 (AAM) or the Version of Record (VoR) in a trusted repository + **immediate open access via the repository** under a Creative Commons Attribution (**CC BY**) or equivalent licence. 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 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 choosing but **publication fees are reimbursable only if publishing venue is full open access** (publication fees in hybrids not reimbursed)



# Research data management

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
- 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.

# 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 (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

# Additional Open Science practices

- 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.

This provision applies up to 4 years after the end of the action

# Evaluation of proposals and Open Science

## “Excellence” criterion (methodology)

- 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

## “Quality and efficiency of implementation” criterion

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

- 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

# NB on evaluation !

- Evaluation concerns mandatory and recommended Open Science practices, the latter where appropriate
- When Open Science practices are duly justified as not appropriate for the project, score is not lowered for not addressing those practices or for lack of Open Science expertise
- All Work Programmes, except for the ERC, evaluate Open Science practices as outlined above (exception with some EIC programmes that for now evaluate under Impact)



SEARCH FUNDING & TENDERS

HOW TO PARTICIPATE

PROJECTS & RESULTS

WORK AS AN EXPERT

SUPPORT

## Horizon Europe (HORIZON)

Support overview

Guidance & Manuals

Programming period

2021-2027

Horizon Europe (HORIZON)

Clear filter

### Reference Documents

#### Grants

This page includes reference documents of the programmes managed on the EU Funding & Tenders portal starting specific actions.

Please select the programme to see the reference documents.

#### Procurement

Reference Documents related to tendering opportunities are published on TED eTendering in the calls for tenders.

Filter

#### Legislation

HE Framework Programme Regulation 2021/695

HE Specific Programme Decision 2021/764

Euratom Research Programme Regulation 2021/765

EU Financial Regulation 2018/1046

#### Work programme & call documents

##### 2021-2022

HE Main Work Programme 2021-2022

EIC Work Programme 2021

ERC Work Programme 2021

#### Grant agreements and contracts

HE MGA v1.0

#### Guidance

HE Programme Guide

List of eligible countries (HE)

Online Manual

Rules for Legal Entity Validation, LEAR Appointment and Financial Capacity Assessment

AGA- Annotated Grant Agreement

#### Project reporting templates

Data management plan template (HE)

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents;programCode=HORIZON>

# Open Science in Horizon Europe explained

- Webinar: [How to prepare a successful proposal in Horizon Europe](#) (24 March 2021)
  - Open Science at 00:53:00
  - Q&A (including on Open Science) from 1:09:00
- Webinar: [A successful proposal for Horizon Europe: Scientific-technical excellence is key, but don't forget the other aspects](#) (21 April 2021)
  - Presentation: [Open Science](#)

**HORIZON  
EUROPE**



# Info days 2021

From June 28th till July 9th

More information at this [link](#)

28 JUNE	<b>INFRASTRUCTURES</b>	
29 & 30 JUNE	<b>DIGITAL, INDUSTRY &amp; SPACE</b>	CLUSTER 4
30 JUNE	<b>CIVIL SECURITY FOR SOCIETY</b>	CLUSTER 3
01 JULY	<b>CULTURE, CREATIVITY &amp; INCLUSIVE SOCIETIES</b>	CLUSTER 2
01 JULY	<b>MARIE SKŁODOWSKA-CURIE ACTIONS</b>	
02 JULY	<b>HEALTH</b>	CLUSTER 1
05 & 06 JULY	<b>CLIMATE, ENERGY &amp; MOBILITY</b>	CLUSTER 5
07 & 08 JULY	<b>FOOD, BIOECONOMY, NATURAL RESOURCES AGRICULTURE &amp; ENVIRONMENT</b>	CLUSTER 6
09 JULY	<b>ERA &amp; WIDENING</b>	



# Open Science: a crucial part of ERA

# 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.



# 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**

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

# Have your say!

- The [public consultation](#) on the Data Act (including the review of the Database Directive) is open for feedback

## Public consultation

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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 >](#)

# Thank you



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