The **European Commission** and **Open Science**

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Why do we need Open Science?

- Open Science means sharing **knowledge** and **tools** as **early** as possible, not only between **researchers** and between **disciplines**, but also with **society** at large

- Open Science has the potential to increase:

  - **Quality** and **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, engaging both researchers and citizens.

How do we support Open Science?

- **Funding Programmes**: Horizon 2020 and Horizon Europe

    - **Rights and obligations** for open access and Open Science

    - **Funding** for the uptake of such policies in EU Member States and for the development of interoperable infrastructures to support OA and OS at the European level

    - **Tools** e.g. an open access publishing platform

- **Legislative documents** e.g. 2018 Recommendation on Scientific Information, 2020 Communication A new ERA for Research and Innovation etc.

- **Stakeholders and expertise** e.g. Open Science Policy Platform, expert groups reports etc.

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Open Science in Horizon Europe: a work in progress

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Open Science rights and obligations (1/2)

- **Ensure immediate open access** via a trusted repository to peer-reviewed scientific publications

- **Retain sufficient IPRs** to comply with the open access requirements, including for licensing

- Only publication fees in **full open access venues** eligible for reimbursement

- *Question: how about **Plan S?***

  - The aim is **alignment** with Plan S principles for all Horizon Europe beneficiaries

Open Science rights and obligations (2/2)

- **Establish and update a data management plan** and manage responsibly the digital research data generated in the action in line with **FAIR** principles

- Data sharing '**as open as possible, as closed as necessary**' (i.e. unless open access would be against legitimate interests or constraints)

- Provide access to data or other results needed for **validation of the conclusions of scientific publications** arising from their project, to the extent that their legitimate interests or constraints are safeguarded

Open Science *modus operandi*

- Work programmes may provide, <u>where justified</u>, for additional obligations to use the **EOSC** for storing/giving access to research data

- Work programmes may provide for <u>additional incentives or obligations</u> e.g.

  - **Early and open sharing** of research results (e.g. when public emergencies)

  - Open access to research outputs **other than publications and data** (e.g. software)

  - Involvement of **citizens**, **civil society**, **end-users** in co-creation of R&I agendas/content

- Open Science will be embedded throughout the programme, e.g. as part of award criteria for proposal **evaluation**, and as **key impact pathway indicators**

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Funding Open Science in Horizon Europe

- The Commission is currently proposing activities *inter alia* in relation to:

  - capacity-building in **institutional open access publishing**,

  - supporting **scientific disciplines** in their policies and implementation of open access (e.g. social sciences, arts and the humanities)

  - and more…

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Open Research Europe (ORE)

Why an open access publishing platform?

- To offer fast publication and open peer review for research conducted by Horizon 2020 and Horizon Europe beneficiaries

  - To <u>supplement</u> the options of programme beneficiaries to publish their results in open access, at no cost to them, during and after the end of their grants, and in full compliance with their contractual obligations

  - Helps them fulfil their open access obligations in Horizon 2020 and Horizon Europe

- To lead by example in operationalising Open Science principles within scientific publishing

- Contribution to transparency and cost-effectiveness

- Collaborative publishing with other funders in the future?

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Main assets of ORE

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

- High scientific **standards**, and swift and **transparent processes**

- Oversight by an independent **Scientific Advisory Board**

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

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

- **Not an obligation to use!**

The publishing service (1/2)

- **Original** peer-reviewed articles and pre-prints (i.e. stemming from Horizon 2020-funded research and later, Horizon Europe)

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

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

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

- 'Super-networked' and '**minable**'

  - PIDs, connection to repositories, open data and software, interoperable technologies, preservation of content, etc.

The publishing service (2/2)

- New generation **metrics**

  - Each article will have a dedicated metrics page

- Explicit, accessible and **transparent** on business processes and publication policies (all to be published on the site for everyone to see)

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

- Following example of other funders such as the Wellcome Trust (Wellcome Open Research) and others

A service to grant beneficiaries

- Public Procurement – **5.8 Million EUR** contract signed in March 2020 with **F1000 Research** for **four years**

  - APCs for the Commission (**780 EUR**) set <u>within</u> the procurement

  - **Global Young Academy**, **LIBER** and **Eurodoc** as subcontractors

  - **OpenAIRE** as a partner to help with syndication and communication of ORE

- Launch of ORE set for **March 2021**

- Click on the infographic!

- Visit the platform https://open-research-europe.ec.europa.eu/

European Open Science Cloud (EOSC)

EOSC in progress

- The building blocks for an Open Science Commons serving all European researchers are in place. More to be done, including a clear model for **federating and on-boarding thematic communities into EOSC**

- To ensure the development beyond 2020, the current EOSC Governance has been working to establish a **European Partnership under Horizon Europe**

- The **EOSC Association**, the leading entity of the Partnership, was established in July 2020. Work progressing on the on-boarding process of new members.

- A **Strategic Research and Innovation Agenda** is under development, following an open consultation on its content

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A new ERA for R&I

(Open science in the new Communication from the Commission)

Open Science as Action 9

- [Communication](#) from 30 September 2020: *The Commission will […]*

  - *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**.*

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Citizens engagement

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A key dimension in Open Science

- A principle and operational objective under **Horizon Europe**

- Debated at [informal meeting of research ministers](), 21 July 2020

  - Proposal for European initiative on citizen science campaigns

- German Presidency conference: "[Knowledge for Change: A decade of Citizen Science (2020-2030)]()", Berlin, 14-15 October 2020

- Eurobarometer on "public knowledge and perceptions of science, research and innovation"

  - Fieldwork planned for late spring 2021; will provide in-depth data for policy development, including on citizen participation in science

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Anything else?

Research evaluation and evaluation of academics, new generation metrics, transparency and cost-effectiveness in scholarly publishing, support to open access and Open Science tools etc.

Thank you

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