



The policy context: **Open Access/ Open** **Science in the EC**

EC internal training: Open Access Policies and
Requirements to Publications and Research
data in H2020
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The Commission objective

optimise the impact of publicly-funded scientific research

- At European level (FP7 & Horizon 2020)
- At Member State level

One way to get there: open access

Expected benefits:

- Better and more efficient science
- Economic growth
- Broader, faster, more transparent and equal access **for the benefit of researchers, industry and citizens**

... in the European Research Area and beyond

Open circulation of knowledge one of the five pillars of the ERA

A multifaceted policy approach

2012 Recommendation on Access to and Preservation of Scientific Information to MS – National Points of Reference (NPR)

- 2016 report, 2017 update in progress (to be published spring 2018)
- Upcoming review of the 2012 Recommendation in Spring 2018

Horizon 2020

- Requirements for Open access to publications and data
- Funding for the uptake of such policies in MS
- Funding for the development interoperable infrastructures that support open access and open science at the European level (primarily through the RI WP)
- Building on investments in infrastructures to develop the European Open Science Cloud (EOSC), a trusted virtual environment to enable data driven science across boundaries and disciplines (work in progress)

Stakeholders and expertise

Open Science Policy Platform, expert groups

May 2016 Council Conclusions

- Support for OA publications, data re-use & data management

The international landscape

Robust open access policies around the world – not invented in Europe

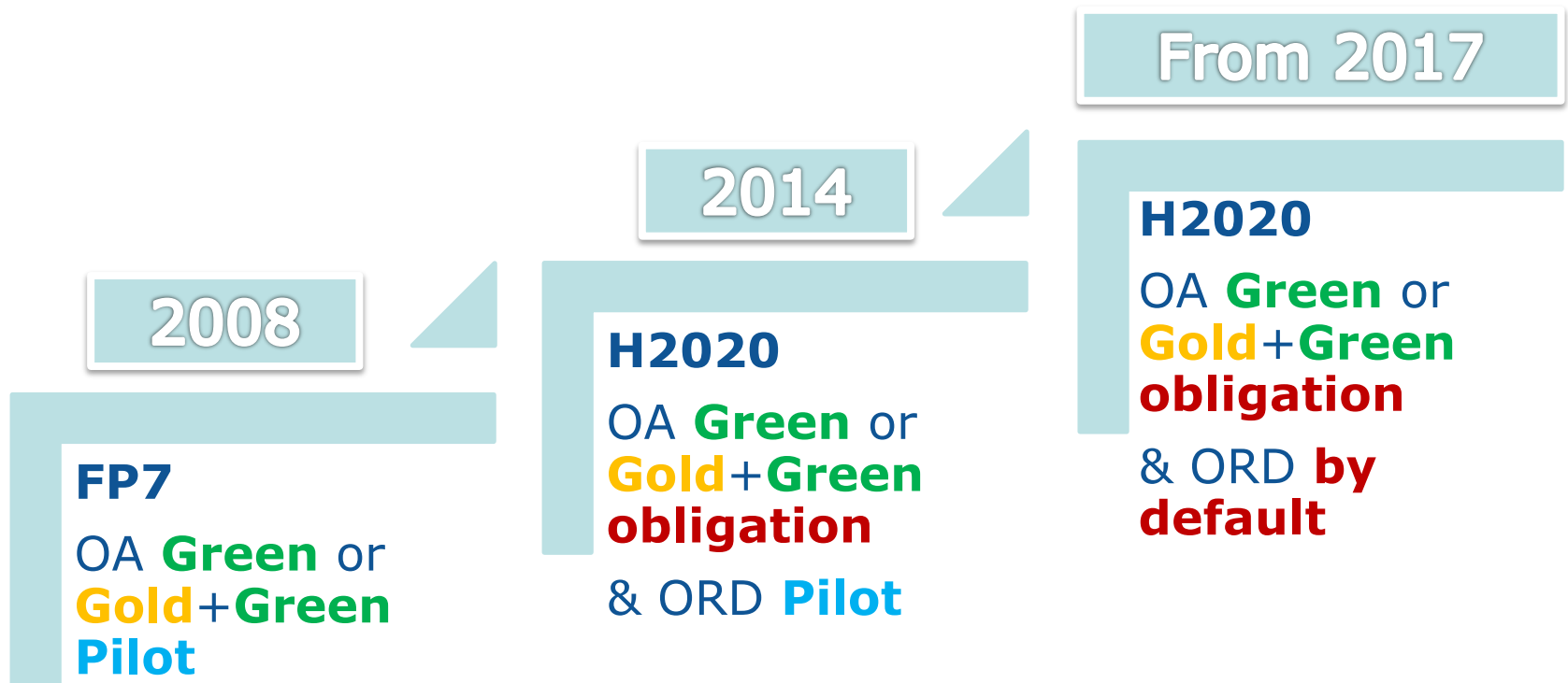
- Strong US OA mandate for federally funded research (agencies with budget of over 100 million €), most notably NIH
- Strong green open access mandate in Latin America (SCIELO)
- Strong open access policies also in Canada, Australia and Japan
- Developing policies in other countries, e.g. China, Russia...
- Key non-state funders also have robust mandates (Wellcome Trust, Gates Foundation)

2017 NPR report (in progress)

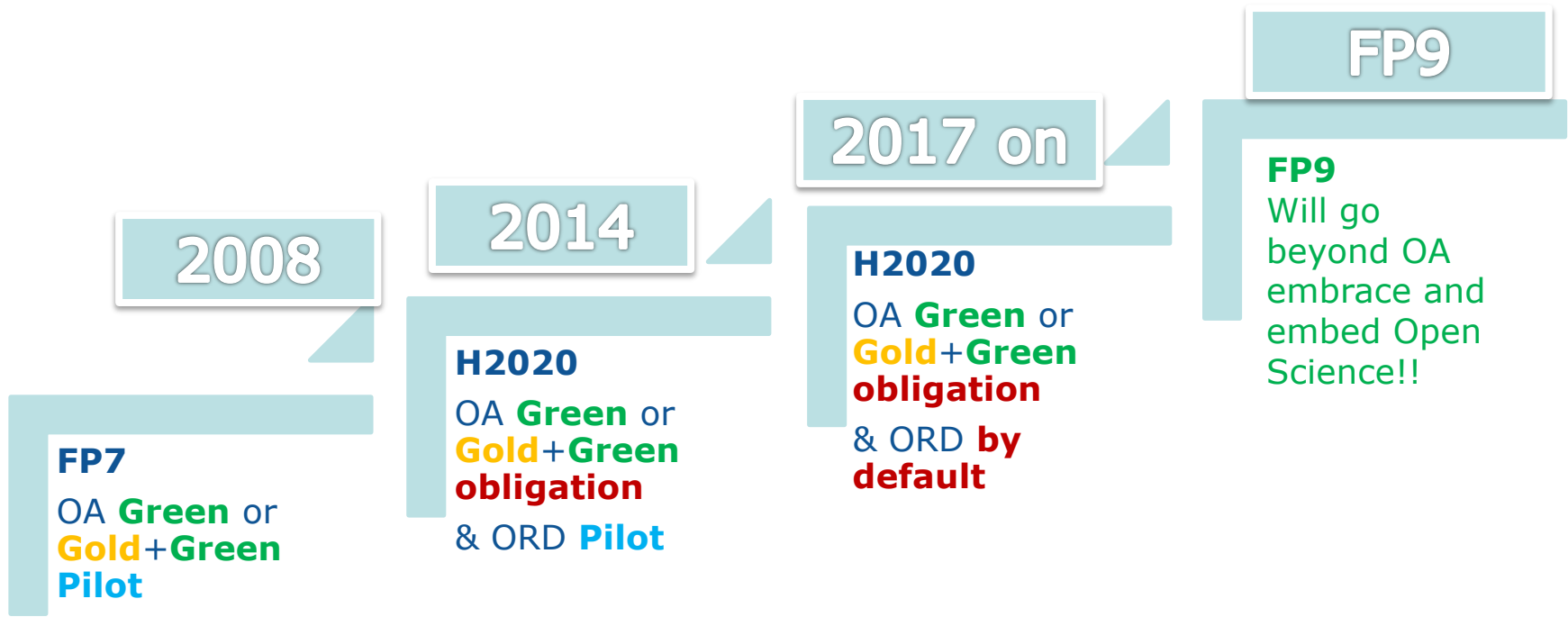
A1.1a Government policies: Policies or overall strategies to encourage or mandate dissemination of and OA to scientific publications are defined at the national level



Then and now: considerable progress



...and the future....





Open access in Horizon 2020

Regulation establishing Horizon 2020

"To increase the circulation and exploitation of knowledge, open access to scientific publications should be ensured. Furthermore, open access to research data resulting from publicly funded research under Horizon 2020 should be promoted, taking into account constraints pertaining to privacy, national security and intellectual property rights"

Open access to **scientific publications** resulting from publicly funded research under Horizon 2020 shall be **ensured** [...].

Open access to **research data** resulting from publicly funded research under Horizon 2020 shall be **promoted**. [...].

Open Access to publications: requirements (Art. 29.2 of GA)

- **What:** Deposit peer-reviewed paper (author version or publisher version) in repository, provide open access to it through repository
- **When:** deposit at publication and make openly accessible at publication, or the latest make openly accessible 6M or 12M (for SSH)

UNDERSTANDING THE GA.....

- If a researcher publishes in open access venue: paper still needs to be in repository, but for access a link to publisher's oa copy can be provided
- Researcher needs to make sure they can fulfil the obligation to the contract. Advance planning strongly advised on where to publish and whether publisher policy compatible with H2020 obligations!
- APCs are eligible costs

ORD pilot requirements

Extension of limited Open Research Data (ORD) whilst retaining its key characteristics:

- Targeted primarily towards **data underlying publications** (other data as specified in DMP)
- a **Data Management Plan** (DMP) is obligatory for projects
- **Costs for open access to research data fully eligible**

General approach: as open as possible, as closed as necessary

- **Robust opt outs options** for IPR, confidentiality/privacy and security reason as well as if OA runs against the main objective of the project
- Whether projects opt-out or not does **not affect the evaluation**

Projects must have a DMP

A Data Management Plan (DMP) provides information on:

- The data the research will generate
- How to ensure its curation, preservation and sustainability
- What parts of that data will be open (and how)

RESEARCH DATA - OPEN BY DEFAULT



Clarifying terminology...



In the past our policy mainly addressed the 'accessibility' part of FAIR.

- Started off with 'open access to research data'
- Moved towards open (research) data with the ORD pilot (which also covered further aspects)
- We are now seeing openness as one component of FAIR data and aim to address all of the FAIR aspects in Horizon 2020

FAIR Data Management DMP (1/3)

Template DMP (Annex to Guidelines on FAIR Data Management)

- **Provided as a service, its use is currently optional**

Standard DMP template is light and flexible

- **Set of questions + summary table**

One DMP per project not per dataset

- **but mention if there are specific issues for a particular dataset)**

DMP as a living document

- **Updated as part of periodic evaluation and/or at least at the end of the project for final reporting**

FAIR Data Management DMP (2/3)

- *1. Data summary*
 - **General questions about data collection/generation and the project**
- *2.1 Making data Findable (incl. provisions for metadata)*
 - **Persistent unique identifiers, conventions followed, metadata standards, keywords...**
- *2.2 Making data openly Accessible*
 - **Sharing (or not), restrictions on use, software, repository...**
- *2.3 Making data Interoperable*
 - **Data exchange, ontologies (types and properties of data)...**
- *2.4 Increasing data Re-use*
 - **Licensing issues, embargo, third parties...**

FAIR Data Management DMP (3/3)

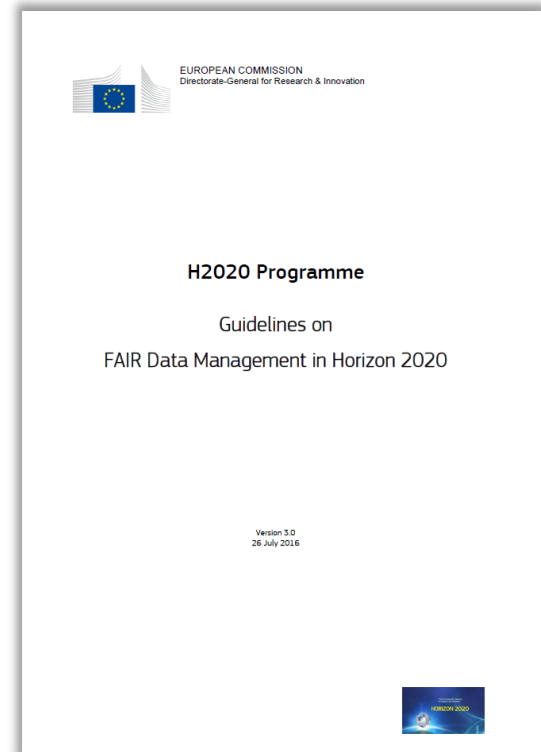
- *3. Allocation of resources*
 - **Costs (for making FAIR), personal etc. (including long term preservation)**
- *4. Data security*
 - **Sensitive data, certification of repositories...**
- *5. Ethical aspects*
 - **Ethical or legal issues (also in context of ethics reviews)**
- *6. Other*
 - **Other non-H2020 procedures for data management?**
- *The DMP template contains pointers as to what to address under each section*

Guidelines on FAIR Data Management

Available [here](#) on
the Participant
Portal!

Read it!!!

Only 12 Pages!!!





Challenges to be solved & Tools

- **Open access to publications**

Increasing uptake to 100% - reinforced monitoring and incentives

- **Open access to research data**

Mainstreaming FAIR data across Horizon 2020 & FP9 – requires a change in scientific culture

- **Tools to further develop policy**

Open Science Policy Platform

Commission Expert Groups on FAIR data & on Future of scholarly communication
continuing dialogue & cooperation with Member States (RWP, ERAC, NPR, MLE)



Ressources - policy

Open innovation, open science, open to the world. A vision for Europe

<http://bookshop.europa.eu/en/open-innovation-open-science-open-to-the-world-pbKI0416263/>

NPR report

https://ec.europa.eu/research/openscience/pdf/openaccess/npr_report.pdf#view=fit&pagemode=none

H2020 guidance

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm

May 2016 Council Conclusions

<http://data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf>

Uptake of ORD pilot (dataset to be updated)

<https://data.europa.eu/euodp/data/dataset/open-research-data-the-uptake-of-the-pilot-in-the-first-calls-of-horizon-2020>

Resources (practical for EC policy)

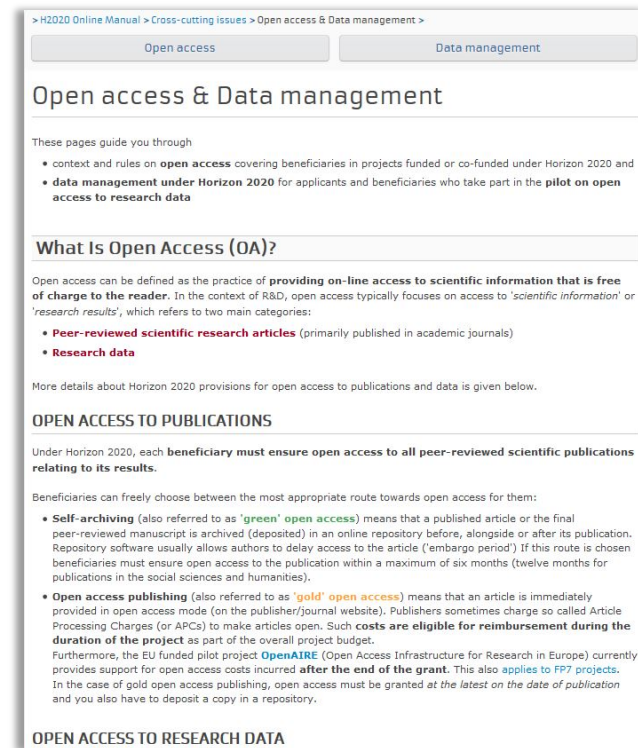
The [Participant Portal](#) has an entire section with info and the [guidelines on Open Access and Data Management in H2020](#), as well as FAQs

[OpenAIRE](#) is always helpful to H2020 grantees and POs. Do refer them to their helpdesk <https://www.openaire.eu/support/helpdesk>

Write: RTD-open-access@ec.europa.eu

Read: [here](#) (DG RTD) & [here](#) (DG CONNECT)

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> H2020 Online Manual > Cross-cutting issues > Open access & Data management >

Open access Data management

Open access & Data management

These pages guide you through

- context and rules on **open access** covering beneficiaries in projects funded or co-funded under Horizon 2020 and
- **data management under Horizon 2020** for applicants and beneficiaries who take part in the **pilot on open access to research data**

What Is Open Access (OA)?

Open access can be defined as the practice of **providing on-line access to scientific information that is free of charge to the reader**. In the context of R&D, open access typically focuses on access to 'scientific information' or 'research results', which refers to two main categories:

- **Peer-reviewed scientific research articles** (primarily published in academic journals)
- **Research data**

More details about Horizon 2020 provisions for open access to publications and data is given below.

OPEN ACCESS TO PUBLICATIONS

Under Horizon 2020, each **beneficiary must ensure open access to all peer-reviewed scientific publications relating to its results**.

Beneficiaries can freely choose between the most appropriate route towards open access for them:

- **Self-archiving** (also referred to as '**green**' open access) means that a published article or the final peer-reviewed manuscript is archived (deposited) in an online repository before, alongside or after its publication. Repository software usually allows authors to delay access to the article ('embargo period') If this route is chosen beneficiaries must ensure open access to the publication within a maximum of six months (twelve months for publications in the social sciences and humanities).
- **Open access publishing** (also referred to as '**gold**' open access) means that an article is immediately provided in open access mode (on the publisher/journal website). Publishers sometimes charge so called Article Processing Charges (or APCs) to make articles open. Such **costs are eligible for reimbursement during the duration of the project** as part of the overall project budget. Furthermore, the EU funded pilot project **OpenAIRE** (Open Access Infrastructure for Research in Europe) currently provides support for open access costs incurred **after the end of the grant**. This also **applies to FP7 projects**. In the case of gold open access publishing, open access must be granted **at the latest on the date of publication** and you also have to deposit a copy in a repository.

OPEN ACCESS TO RESEARCH DATA



Resources – practical

Sherpa-Romeo: publisher policies:

<http://www.sherpa.ac.uk/romeo/>

→ very few journals do not offer either green or gold

Directory of Open Access Journals:

<http://doaj.org/>

→ 10,039 Journals covered

Directory of Open Access Books:

<http://www.doabooks.org/>

Directory of Open Access Repositories:

<http://www.openoar.org/> and <http://roar.eprints.org/>

As well as thematic initiatives, (PubMedCentral, arXiv.org), open access publishers (e.g.PLoS) and of course...google scholar (not everything there is OA but quite a bit)

We welcome your input



Contact us

Mail: RTD-open-access@ec.europa.eu

Web: <http://ec.europa.eu/research/openscience/index.cfm>

Twitter: [@OpenAccessEC](https://twitter.com/OpenAccessEC)