European Commission

Open Access policies and requirements to Research Data in H2020



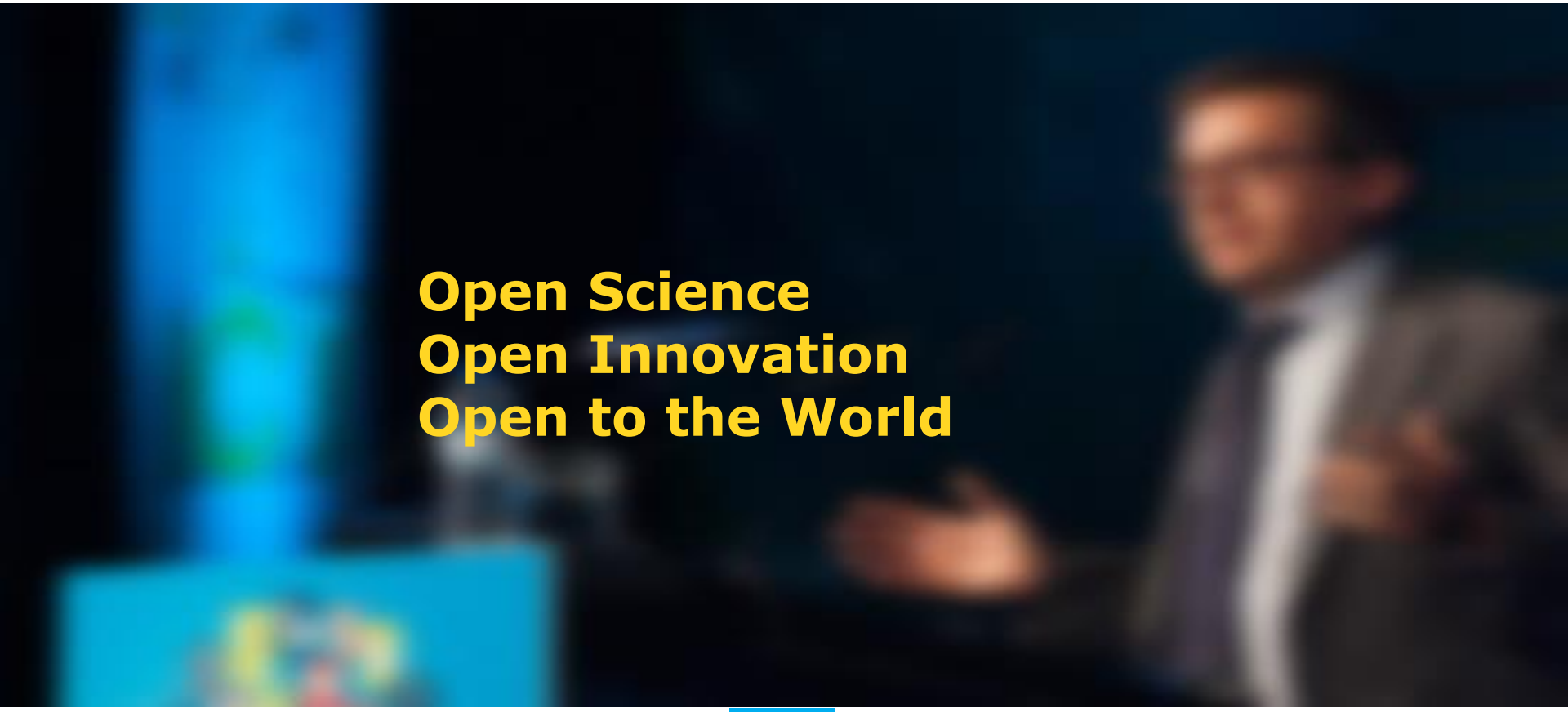
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Joining - 6th General Assembly

Research and Innovation

European Commission

The political context



The policy context
Competitiveness Council 29 May 2015

Member States have expressed their wish for the development of a European Open Science Agenda

- CALLS for action to remove obstacles to wide access to publicly funded research publications and underlying data;

- CALLS for actions addressing better data management and, in this context, welcomes the Pilot on Open Research Data under Horizon 2020

The policy context

Competitiveness Council 27 May 2016

Science ministers declared that the published outputs of all publicly-funded research must be accessible free of subscription charges and available for by 2020.

Each MS will follow its own route via either:

- *The 'gold' path, where journals stop charging a subscription and instead charge authors for publishing their papers, or*

- The 'green' route in which researchers deposit articles in an online archive open to everyone

Open Research Data (ORD)

ORD refers to making research data freely available for reuse beyond the purpose for which they were originally collected;

Making **RD** freely available aids further discovery, makes scientific process more cost efficient and reliable.

European Commission

Open Access to Research Data in H2020 (Pilot)



Research and Innovation

Open Access to Research Data in H2020

- ***Key questions***:

1. *Which thematic areas are covered?*
2. *What data is covered?*
3. *What are the requirements?*
4. *What about data management plan?*

1. Which thematic areas are covered?
(WP 2016-2017)

- Future and Emerging Technologies
- Research infrastructures – (new: coverage of the whole area)
- Leadership in enabling and industrial technologies – Information and Communication Technologies
- Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology: 'nanosafety' and 'modelling' topics (new)
- Societal Challenge: Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy - selected topics as specified in the work programme (new)

1. Which thematic areas are covered?
Cont'

- Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – except raw materials
- Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies
- Science with and for Society
- Cross-cutting activities - focus areas – part Smart and Sustainable Cities (moved from Energy WP)

- ***Projects in other areas are encouraged to participate on a voluntary basis!***

2. What data is covered?

as open as possible, as closed as necessary

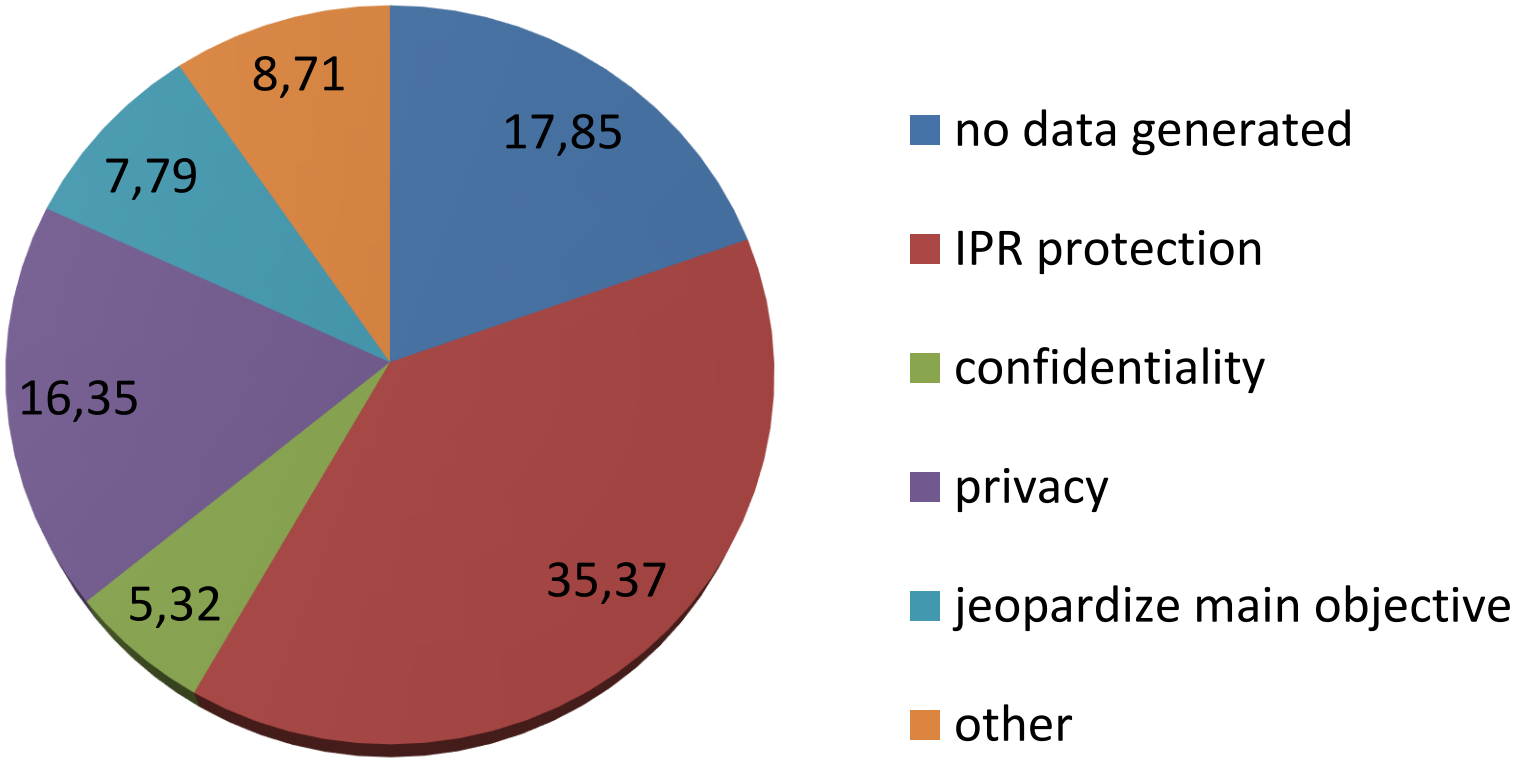
- Data needed to validate the results presented in scientific publications ("underlying data")
- Other data as specified in Data Management Plan (up to projects)

2. What data is covered?

as open as possible, as closed as necessary

- *Projects may **opt out** in a series of cases, **at any stage***
  - If the project will not generate / collect any data
  - Conflict with obligation to protect results
  - Conflict with confidentiality obligations
  - Conflict with security obligations
  - Conflict with rules on protection of personal data
  - If the achievement of the action's main objective would be jeopardised by making specific parts of the research data openly accessible (to be explained in data management plan)

ORD Pilot: opt-out reasons among proposals



3. What are the requirements?

- ***Beneficiaries*** *participating in the Pilot will:*
  - Deposit this data in a **research data repository** of their choice
  - Take measures to make it possible to access, mine, exploit, reproduce and disseminate free of charge
  - Provide information about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (where possible, provide the tools and instruments themselves)
- ***EC:*** Support & monitoring (Annotated MGA, guidance etc…)

4. What about Data Management Plan?

- All proposers need to submit general information on data management - evaluated under criterion 'Impact'
- DMPs are mandatory for all projects participating in the Pilot, optional for others
- DMPs are NOT part of the proposal evaluation, they need to be generated within the first 6 months of the project and updated as needed

- ***DMP questions:***
  - What data will be collected / generated?
  - What standards will be used / how will metadata be generated?
  - What data will be exploited? What data will be shared/made open?
  - How will data be curated and preserved?

European Commission - Research - Participants

Proposal Submission Forms

Proposal ID	Acronym	Go to

5 - Call specific questions

Open Research Data Pilot in Horizon 2020

If selected, all applicants will participate in the Pilot on Open Research Data in Horizon 2020[1], which aims to improve and maximise access to and re-use of research data generated by actions. Participating in the Pilot does not necessarily mean opening up all research data. Actions participating in the Pilot will be invited to formulate a Data Management Plan in which they will determine and explain which of the research data they generate will be made open.

Applicants have the possibility to opt out of this Pilot and must indicate a reason for this choice.

Participation in this Pilot does not constitute part of the evaluation process. Proposals will not be evaluated favourably because they are part of the Pilot and will not be penalised for opting out of the Pilot.

We wish to opt out of the Pilot on Open Research Data in Horizon 2020.	(•) Yes	( ) No

Please indicate the reason(s) for not being able to participate in the Pilot:

- the project does not generate any data	☐
- to allow the protection of results (e.g. patenting)	☐
- incompatibility with the need for confidentiality linked to security reasons	☐
- incompatibility with privacy/data protection reasons	☐
- achievement of the project's main aim would be jeopardised	☐
- other legitimate reasons	☒

Please specify the reason:

Other legitimate reasons (Maximum 300 characters)

Remaining characters 300

[1] *According to article 43.2 of Regulation (EU) No 1290/2013 of the European Parliament and of the Council, of 11 December 2013, laying down the rules for participation and dissemination in "Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006.*

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We wish to participate in the Pilot on Open Research Data in Horizon 2020 on a voluntary basis	(•) Yes	( ) No

Participation in this Pilot does not constitute part of the evaluation process. Proposals will not be evaluated favourably because they are part of the Pilot and will not be penalised for not participating.

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Data management activities

The use of a Data Management Plan (DMP) is required for projects participating in the Open Research Data Pilot in Horizon 2020, in the form of a deliverable in the first 6 months of the project.

All other projects may deliver a DMP on a voluntary basis, if relevant for their research.

Are data management activities relevant for your proposed project?	(•) Yes	( ) No

A Data Management Plan will be delivered (Please note: Projects participating in the Open Research Data Pilot **must** include a Data Management Plan as a deliverable in the first 6 months of the project).	☐
Data Management is part of a Work Package.	☐
Data Management will be integrated in another way.	☒

Please indicate how data management will be addressed in your project:

Please indicate how data management will be addressed in your project.

Remaining characters 300

Forms on the participant portal

What are the requirements of the Open Research Data pilot ?
(the GA includes Art 29.3)

STEP 1 – projects are required to deposit the research data into a research data repository. Useful listing at: (www.re3data.org)

STEP 2 – as far as possible, projects must take measures to enable for third parties to access, mine, exploit, reproduce and disseminate (free of charge for any user) this research data.

One effective way of doing this is to attach Creative Commons License to the data deposited.
http://creativecommons.org/licenses

Horizon 2020 Open Access pilot

Coordinators:

- Should ensure that consent agreements also include permission to archive and share data for reuse by others
- Seek permission for more than just the primary object purpose (please note that derivative data may not be able to be shared if it includes somebody else's IP
- Should be particularly clear with commercial partners when exploring the potential for openness.

How to make data open ?

1. From the very beginning decide on what can be made open
2. Determine what IP exists and apply a suitable licence (open)
3. Use repositories. They will naturally oblige you to provide the data in a suitable format
4. Disseminate it as much as possible: register in catalogues, get a DoI, post on the web,..
5. Costs related to the implementation are eligible.

Data file formats

The format and software in which research data are created usually depend on how researchers choose to collect and analyse data, often determined by discipline-specific standards and customs. However, if they plan/want their data to be re-used in a sustainable way in the long-term then they should opt ***for open, non-proprietary formats***.

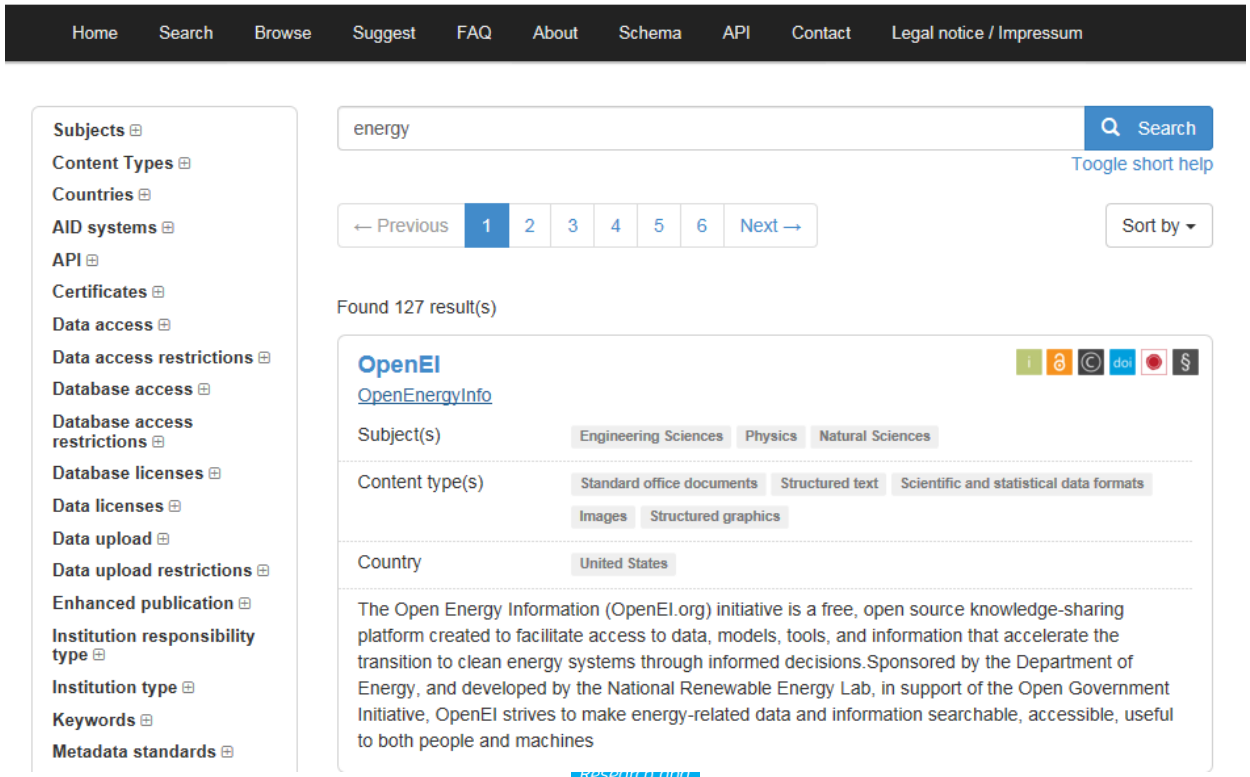
TYPE	RECOMMENDED	AVOID
Tabular data	CSP, TSV, SPSS portable	Excel
Text	Plain text, HTML, RTF	Word
Media	MP4	Quicktime
Images	TIFF, JPEG2000, PNG	GIF, JPG
Structured data	XML, RDF	RDBMS

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Data repositories

http://service.re3data.org/search

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES



Compulsory DMP

Guidelines and Templates at:

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Annex 1 *(by month 6)*

The DMP should address these points on a dataset by dataset basis:

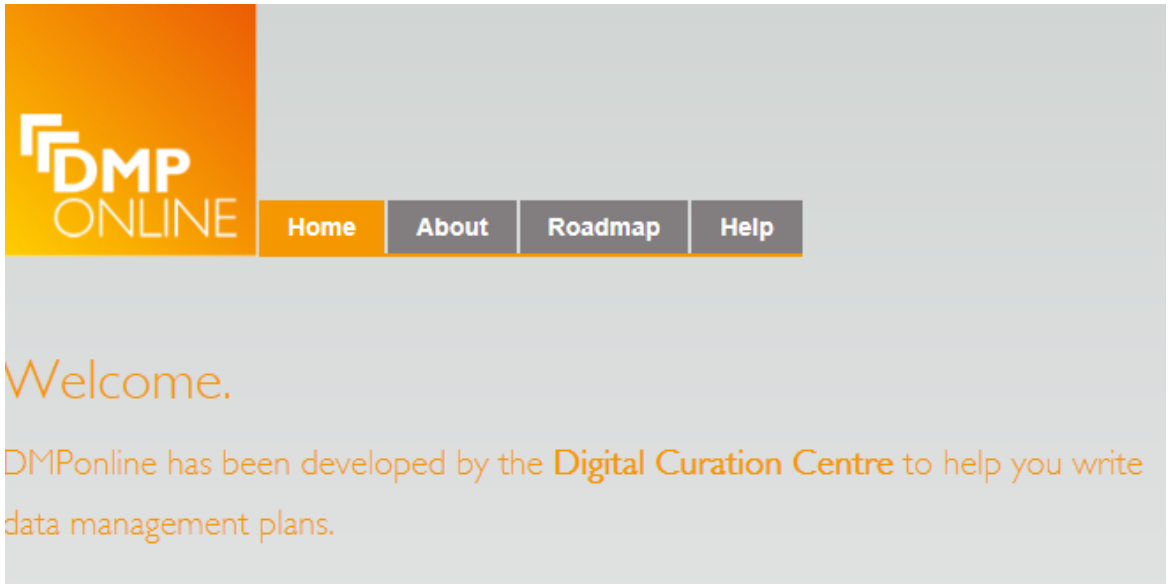
- *Data set reference and name*
- *Data set description*
- *Standards and metadata*
- *Data sharing*
- *Archiving and preservation (including storage and backup)*

Annex 2 (mid-term & final review)

Scientific research data should be easily:

1. *Discoverable*
2. *Accessible*
3. *Assessable and intelligible*
4. *Useable beyond the original purpose for which it was collected*
5. *Interoperable to specific quality standards*

Web-based tools



DMPonline has been developed by the UK Digital Curation Centre to help you write data management plans not just for UK research councils but also to NSF or H2020.

https://dmponline.dcc.ac.uk/

Screencast is available on how to use it.

Role of PO and reviewers

In the end, one needs to be reassured that enough reflection has been taken by the consortium and that the approach seems reasonable

- *Is it appropriate ?*
- *Is it feasible?*
- *Is it complete ?*
- *Are the restritions properly justified?*
- *Is the cost properly justified ?*

Additional Information !

List of research data repositories:

http://www.re3data.org

H2020 guidance:

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf



Thank you

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