

## Guidelines for a data paragraph in a Horizon 2020 research proposal

**These guidelines are aimed at helping researchers writing a data paragraph in a Horizon 2020 research proposal. If you want us to go over your draft proposal, don't hesitate to contact us and feel free to ask any follow-up questions.**

### 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 the [TU Delft 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. 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 the TU Delft Repository. See: <http://repository.tudelft.nl/content/upload-tips>

Official EC guideline:

- [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-pilot-guide_en.pdf)
- General grant requirements on Open Access:  
<http://sherpa.ac.uk/juliet/index.php?fPersistentID=763>

Find out if your journal supports open access, and what version of the publication is allowed to put in an OA repository:

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

Support from TU Delft Library:

- <http://openscienceguide.tudelft.nl>
- TU Delft Policy on Open Access Publishing
- OA-Gold publishing: find an OA-Journal: <http://doaj.org>
  - Ask the library for the costs of APC's!
- OA-Green deposit: upload an OA-paper to the TU Delft Repository (free of charge)

## Open Access to research data

In Horizon 2020 the Commission has launched a **flexible pilot for open access to research data (ORD pilot)**. The pilot **aims to improve and maximize access to and re-use of research data generated by Horizon 2020 projects**.

In previous Work Programmes the ORD Pilot was limited to some areas of Horizon 2020.

As of 2017 the Open Research Data pilot is extended to cover all thematic areas of Horizon 2020 per default. However, the Commission recognizes that some research data cannot be made open and applies the principle of *'as open as possible, as closed as necessary'*. The possibilities to opt out remain, i.e. for reasons of privacy, to respect intellectual property rights, or if opening up data might jeopardize the project's main objective. In this context the [guidelines](#) for data management for Horizon 2020 have been updated.

This means that all project proposals must include a section on research data management which is evaluated under the criterion 'Impact'. Applicants must provide a short, general outline of their policy for data management in which they answer the following questions:

- What types of data will the project generate/collect?
- What standards will be used?
- How will this data be exploited and/or shared/made accessible for verification and re-use? If data cannot be made available, explain why.
- How will this data be curated and preserved?

Applicants should also ensure resource and budgetary planning for data management and include an initial Data Management Plan (DMP) as a deliverable at month 6 (at the latest) into the proposal.

We will go through the four questions:

### **What types of data will the project generate/collect?**

What kind of data will the project collect or generate, and to whom might they be useful later on? This includes, firstly, the data and metadata needed to validate results in scientific publications and, secondly, other curated and/or raw data and metadata that may be required for validation purposes or with reuse value.

### **What standards will be used?**

What is the data about? Who created it and why? In what forms is it available? What software is being used?

Metadata answers such questions to enable data to be found and understood, ideally according to the particular standards of your scientific discipline. Reference to existing suitable standards of the discipline. If these do not exist, provide an outline on how and what metadata will be created. An example of commonly used generic metadata can be found [here](#) or seek advice from Library staff.

### **How will this data be exploited and/or shared/made accessible for verification and re-use? If data cannot be made available, explain why.**

By default as much of the resulting data as possible should be archived as Open Access. Provide a description of how data will be shared, including access procedures, embargo periods (if any), outlines of technical mechanisms for dissemination and necessary software and other tools for enabling re-use, and definition of whether access will be widely open or restricted to specific groups. In case the dataset cannot be shared, the reasons for this should be mentioned (e.g. ethical, rules of personal data, intellectual property, commercial, privacy-related, security-related).

### **How will this data be curated and preserved?**

You should select a data repository that will preserve your data, metadata, and offer support guidelines for data standards and licensing. Give an indication of how long the data should be preserved, what its approximated end volume is, what the associated costs are and how these are planned to be covered.

In the Netherlands, we have two national repositories: 4TU.ResearchData, a repository for technical-scientific research data located at the TU Delft Library, and DANS EASY, that mostly contains data from Alfa and Gamma sciences. But you could also choose an international repository that caters to your field of research.

Once a project has had its funding approved and has started, you **must submit a first version of your DMP** (as a deliverable) within the first 6 months of the project. It is advisable to contact the long-term data repository of one's choice when writing the first version of a Data Management Plan. Projects that opt-out of the ORD pilot are still encouraged to submit a DMP on a voluntary basis.

Example data section:

*(To be included in Section 2. Impact (criterion 2), Subsection 2.2a of the Horizon 2020 Proposal template).*

The research data gathered in this project will be described in a Data Management Plan (DMP). The research data will be securely stored at 4TU.Centre for Research Data which is a Trusted Digital Repository for technical-scientific research data in the Netherlands. Research data that is not privacy sensitive will be available open access through the data archive mentioned above.

Some notes:

- Data gathered in the case studies will be made openly available as long as it does not harm privacy or competitiveness of the business being studied.
- Data gathered in the survey will be made openly available once it has been anonymized in such a way that it cannot be tracked back to individual respondents, directly nor indirectly.
- These data, including the metadata that ensures that others can find and use the data, will be stored and made available in the TU Delft data archive 4TU.ResearchData, which complies fully with H2020 requirements
- Tooling + platform features developed within the project will be made available to users for free
- Publications resulting from this project will be published in open access journals that offer immediate free online open access to the peer reviewed articles
- The published open access articles will also be submitted to the Institutional Repository of Delft University of Technology (<http://repository.tudelft.nl>) with the requested metadata a possible grace period.

#### More info and links:

- Official EC Guideline:
  - [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf) (incl. DMP template)
- In proposal phase try to find out with your project partners:
  - what data (types/kind) is generated or collected in the project
  - what file formats are used, and how the data gets its description.
  - also write something if this data should be made open, as part of publication validation, or should be exploited.
  - Write about where it is going to be placed for after the project.
    - Find a suitable data archive here: <http://service.re3data.org>
    - Or consider TU Delft's data archive: <https://data.4tu.nl/repository>

- Estimate the data volume needed during project and for archival storage.
  - Costs can be budgeted in H2020 for data management and archiving.
- When you want to optimise data management during your research project consider the use of a DataLab, like DataverseNL: <http://dataverse.nl>
- Support from TU Delft Library (via 4TU.ResearchData)
  - <http://researchdata.4tu.nl>
  - Data Archiving [min. 15 year curation]: 2-10GB: €150; >10GB: €150,- + \*GBs (over 10) x €4,50. (TUD, TU/e and UT are offered a discount of 20%).  
See also: <http://researchdata.4tu.nl/en/about-4turesearchdata/costs>
  - DataverseNL: 50GB of free storage, each extra chunk of 50GB per year: €150,-
  - Data Management Plan template:  
[http://researchdata.4tu.nl/fileadmin/editor\\_upload/pdf/DMP/4TU\\_Data\\_Management\\_Plan.docx](http://researchdata.4tu.nl/fileadmin/editor_upload/pdf/DMP/4TU_Data_Management_Plan.docx)