

Research data management and sharing: the requirements of five major funders

This document summarizes the requirements of five major funders with regard to:

- the data management plan;
- opening or sharing of research data.

It should be noted that, in all cases, the obligation to open or share data does not apply to data that must remain confidential (patents, professional secrecy, regulations on personal data, etc.). The rule to follow is "As open as possible, as closed as necessary".

European Commission

Horizon 2020 Framework Programme (2014-2020):

By default, all H2020 projects are part of the Open Research Data (ORD) pilot and are subject to several requirements (described in the table below). But H2020 beneficiaries can opt-out at any time and free themselves from the associated requirements.

Opt-out can be:

- total: no data management plan (DMP) and no data opening;
- partial: writing of a DMP but some or all datasets are closed.

Horizon Europe Framework Programme (2021-2027):

No opt-out is possible. Project leaders must follow the requirements below.

Data management plan	
Mandatory?	<ul style="list-style-type: none"> - Yes, for all the projects participating in the ORD pilot (H2020 Programme) - Yes, for all projects in the Horizon Europe Programme
What?	<p>A DMP should include information on:</p> <ul style="list-style-type: none"> • the handling of research data during and after the end of the project • what data will be collected, processed and/or generated • which methodology and standards will be applied • whether data will be shared/made open access • how data will be curated and preserved
When?	<ul style="list-style-type: none"> - Simplified version of the DMP during the application phase - First version of the DMP within the first 6 months of the project. - DMP updates during the project <ul style="list-style-type: none"> • Whenever significant changes arise • At every periodic evaluation of the project • At the end of the project for the final assessment

Opening or sharing data	
Mandatory?	Yes, all the projects participating in the ORD pilot (H2020 Programme) and in the Horizon Europe Programme must allow free and open access to the digital research data generated during the project.
What?	Data that have to be made available for open access are: <ul style="list-style-type: none"> • the data needed to validate the results presented in scientific publications, and the associated metadata • any other data described in the DMP, including the associated metadata.
When?	- As soon as possible, for the data needed to validate the results presented in publications - For other data, it is possible to specify an embargo period in the DMP.
How?	- By depositing the research data in a research data repository - As far as possible, by taking measures to enable third parties to access, mine, exploit, reproduce and disseminate (free of charge for any user) this research data.

To go further:

- [Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020](#)
- [Guidelines on FAIR Data Management in Horizon 2020](#)

French National Research Agency (ANR)

Data management plan	
Mandatory?	Yes, for projects funded from 2019 onwards.
What?	The ANR recommends the use of their DMP template (available online) unless another template is proposed by their home institution.
When?	- First version of the DMP within the first 6 months of the project - Mid-term update of the DMP (for projects lasting more than 30 months) - Final version of the DMP at the end of the project
Opening or sharing data	
Mandatory?	No, but encouraged and desired: "The ANR encourages the coordinators to consider the question of research data from the beginning and throughout the project. »

To go further: [La science ouverte : un engagement de l'ANR](#)

Bill et Melinda Gates Foundation

Data management plan	
Mandatory?	No
Opening or sharing data	
Mandatory?	Yes, data underlying published research results have to be made accessible and open immediately.
What?	The obligation only concerns data needed to validate the results presented in scientific publications.
When?	During a transition period, a 12-month embargo may be applied.
How?	The Gates Foundation does not make any recommendations on how to make its data accessible.

To go further: [Gates Foundation Open Access Policy](#)

National Institutes of Health (NIH)

Data sharing plan	
Mandatory?	<p>A Data Sharing Plan (DSP) is mandatory for:</p> <ul style="list-style-type: none"> • Project leaders whose research generates or uses large-scale human or non-human genomic data • Project leaders seeking NIH funding of \$500,000 or more in direct costs in any one year. <p>However, the latter can write an explanation of why data sharing is not possible and thus avoid writing a DSP.</p>
What?	<p>The data sharing plan gives essential information about:</p> <ul style="list-style-type: none"> • What data will be shared? • Who will have access to the data? • Where will the data to be shared be located? • When will the data be shared? • How will researchers locate and access the data?
When?	First version of the DSP during the application phase

Opening or sharing data	
Mandatory?	<ul style="list-style-type: none"> - Yes, sharing is mandatory for human or non human genomic data - For the other types of research data, the NIH recommends to make it available to other investigators.
What?	The data to be made accessible are final research data, resulting from research projects in laboratories or on human subjects. The data must be accompanied by proper documentation to enable their understanding and reuse.
When?	Timely and no later than the acceptance for publication of the main findings from the final dataset.
How?	<p>Genomic data must be deposited in a repository recommended by the NIH. See the NIH list.</p> <p>For the other types of data, the NIH allows different sharing methods:</p> <ul style="list-style-type: none"> • By publishing the dataset in a data paper • By responding directly to data requests (by email or by post for example) • By storing the dataset in a secure and controlled environment in which eligible researchers can perform analyses using data resources • By storing the dataset in a repository where the data are documented and accessible.

To go further:

- [NIH Data Sharing Policy](#) (2003)
- [NIH Genomic Data Sharing Policy](#) (2015) and [FAQ](#)
- NIH released its [new policy for data management and sharing](#) in October 2020, which will be **effective in January 2023**. This policy strengthens NIH's data management and sharing requirements and will apply to all research funded or conducted by NIH.

Wellcome Trust

The Wellcome Trust's policy is not only about data but more broadly about research outputs:

- datasets generated by research
- original software created in the course of research
- new materials created – like antibodies, cell lines and reagents

Outputs management plan (OMP)	
Mandatory?	<p>An outputs management plan is required when the proposed research is likely to create significant research outputs that are of value to other researchers and users.</p> <p>An outputs management plan is not usually required for studies that only generate small-scale or limited datasets that are unlikely to be of clear value to other users.</p>
What?	<p>The OMP should address the following, where relevant:</p> <ul style="list-style-type: none"> • Research data • Software created during the research • New materials created during the research • The intellectual property that the project can generate (patents in particular)
When?	<ul style="list-style-type: none"> - First version of the OMP during the application phase - Regular updates during the research
Opening or sharing data	
Mandatory?	<p>Yes, researchers have to « maximize the availability of research data, software and materials with as few restrictions as possible ».</p> <p>This is the case even if an OMP has not been requested by the Wellcome Trust</p>
What?	<p>As a minimum, the data underpinning research papers as well as any original software that is required to view datasets or to replicate analyses.</p>
When?	<ul style="list-style-type: none"> - At the time of publication of the research paper - Before publication if the data are related to a public health emergency
How?	<ul style="list-style-type: none"> - The research outputs must be discoverable - The research outputs must be stored in recognized community repositories, wherever possible - Persistent identifiers must be associated to these research outputs, wherever possible.

To go further:

- [Policy on data, software and materials management and sharing](#)
- [Developing an outputs management plan](#)



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