Managing and sharing research data: the requirements of five major funders

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

- research data management documentation;
- opening or sharing of research data.

It should be noted that, in all cases, there are exceptions to the obligation to open or share data. The rule to follow is "As open as possible, as closed as necessary".

SUMMARY: REQUIREMENTS AT EACH STAGE OF A PROJECT

	Application stage	Start of the project (first 6 months)	Continuation and end of the project
European Commission	Maximum 1 page on the management of data and other research outputs	Data Management Plan (DMP)	Updates to the DMP + Opening or sharing of research data
French National Research Agency (ANR)	/	Data Management Plan (DMP)	Updates to the DMP
Bill & Melinda Gates Foundation	Data Access Plan (for grants over \$500,000)	/	Opening or sharing of research data
National Institutes of Health (NIH)	Data Management & Sharing plan	/	Updates to the plan + Opening or sharing of research data
Wellcome Trust	Outputs management plan	/	Updates to the plan + Opening or sharing of research data

EUROPEAN COMMISSION

Since 2021 (Horizon Europe programme), all project leaders generating or reusing data or other research outputs (except for publications) must comply with the following conditions.

Paragraph on the management of data and other research outputs

	- 1 page maximum in the 'Excellence' section of the funding application
What?	- Indicate how the data/research outputs will be managed in line with the FAIR
	principles (Findable, Accessible, Interoperable, Reusable)

Data Management Plan (DMP)

What?	A document that describes how research data are managed, described, preserved and shared. Other types of research outputs may be included: software, workflows, protocols, etc.
When?	 First version of the DMP within the first 6 months of the project DMP updates during the project: At every periodic evaluation of the project At the end of the project for the final assessment
How?	The European Commission proposes a template, but its use is not compulsory.

Opening or sharing of research data

What?	All research data must be open by default, unless there are legitimate reasons to keep it closed.
When?	 As soon as possible after data generation and quality control, at the latest at the end of the project. Specific requirements: Data underpinning a scientific publication should be shared at the latest at the time of publication of the associated article. In the case of a public health emergency, immediate open access may be requested
How?	 By depositing the data in a trusted repository By associating them with a CC-BY or CC0 licence

To go further:

- → <u>Programme Guide Horizon Europe</u> (see page 40 Open Science)
- → How to comply with Horizon Europe mandate for Research Data Management

FRENCH NATIONAL RESEARCH AGENCY (ANR)

Since 2019, the ANR requires a data management plan (DMP) for all funded projects.

There is no explicit requirement to include a paragraph on data management in the proposal, but it is possible to prepare one during the 2nd step of the proposal to show that you are prepared.

Data sharing is not compulsory, but it is encouraged and desired. The principle of "as open as possible, as closed as necessary" is at the heart of the ANR's approach.

Data Management Plan (DMP)

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
How?	ANR recommends the use of their DMP template (<u>available online</u>) unless another template is proposed by their institution.

To go further:

→ Open Science: an ANR commitment

BILL & MELINDA GATES FOUNDATION

Data Access Plan (DAP)

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What?	The DAP should at a minimum address: the nature and scope of data, the timing of disclosure, the manner in which the data and metadata is stored and disseminated, who will have access to the data and under what conditions.
When?	The Data Access Plan must be included within the proposal submission
How?	Gates foundation provides a <u>template</u>

Opening or sharing of research data

What?	All data needed to validate the results presented in scientific publications and any additional relevant data necessary to understand, assess, and replicate the reported study findings in totality.
When?	At the time of publication of the associated article
How?	 By depositing the data in a trusted repository By associating them with a licence no more restrictive than the CC-BY licence

To go further:

- → Gates Foundation Data Sharing Requirements
- → Global Health Data Access Principles
- → Frequently Asked Questions Data Access Principles

NATIONAL INSTITUTES OF HEALTH (NIH)

Any project submitted to the NIH after 25 January 2023 and generating scientific data must follow the requirements of the new NIH policy for data management and sharing.

Data Management & Sharing plan, DMS plan

What?	A maximum 2-page document specifying how the scientific data generated by the project will be managed and shared. The NIH indicates <u>here</u> the information that must be included.
When?	 First version of the DMS plan to be provided with all new project applications. Applications selected for funding will only be funded if the DMS Plan is complete and acceptable. Regular updates (at least at the time of each annual Research Performance Progress Report) submitted to the NIH for approval.
How?	NIH proposes a <u>DMS plan template</u> and provides examples of completed plans.

Opening or sharing of research data

What?	All research data must be open by default, unless legal, ethical or technical constraints limit data sharing (most common constraints).
When?	 <u>As soon as possible</u>, and in particular: For data associated with a publication: no later than the date on which the article is published; For data underlying findings not disseminated through journal articles: by the end of the performance period at the latest.
How?	 By depositing the data in a repository adapted to the type of data and the discipline. NIH proposes a <u>list of recommended repositories</u> (with no obligation to use them) and provides <u>recommendations</u> for selecting repositories outside this list.

To go further:

- → NIH Policy for Data Management and Sharing
- → <u>NIH Scientific Data Sharing</u>

WELLCOME TRUST

The Wellcome Trust's policy is not just about data, but more broadly about research outputs.

Outputs management plan (OMP)

What?	 The OMP should address the following, where relevant: Research data Software created during the research New materials created during the research – like antibodies, cell lines and reagents The intellectual property that the project can generate (patents in particular)
When?	 First version of the OMP during the application phase Regular updates during the research
How?	- By following the Wellcome Trust guidelines

Opening or sharing of research data

What?	Project leaders must maximize the availability of research data, software and materials with as few restrictions as possible. As a minimum, the data underpinning research papers as well as any original software that is required to view datasets or to replicate analyses.
When?	 For data associated with a publication: no later than the date on which the article is published; In the case of a public health emergency, immediate open access may be requested
How?	- By depositing the data in a recognised repository

To go further:

→ Policy on data, software and materials management and sharing

→ Developing an outputs management plan