
Data Management Plan (DMP)

The basic tool to help you keep track of your research data is a data management plan (DMP). It is a document that describes what data will be created and how, helps you check that you have the necessary equipment and support in place, and outlines the plans for data sharing and preservation.

DMP should be a 'living' document which is **updated regularly** along the research process to reflect what actually happened with the data.

Data management plan



documentation
and metadata



safety storage
and backup



data sharing



project continuity



ethics and legal
compliance



project integrity



reusable data



responsibilities
and resources

Why develop a DMP?

- Checking that you have the necessary equipment and support in place
- Helps you anticipate potential issues
- Decreasing the risk of duplication, data loss or data security breach
- Ensuring that the data are complete, accurate and reliable
- Saving time and energy (e.g., when searching the data, writing up papers, data sharing etc.)
- Some fundors require a DMP (e.g., Horizon 2020, Horizon Europe, etc.)

What to cover in a DMP?

There is no single form a DMP should have – different institutions or research funders may emphasize different aspects of research data management. The DMP submitted as part of grant funded projects should, therefore, follow the requirements of the research funder.

The content of a DMP also depends on the type of research and data collected. For example, ethics and personal data protection might be important for medical or sociological researchers. On the other hand, for researchers in biology or physics, who work with large volumes of data, issues with data storage and backup might be more important.

To give you an example, compare the DMP templates by the [Digital Curation Centre](#) and [European Research Council](#) below. If you look at the ERC template, you'll see that even though the topics covered by the DCC template should be included here as well, the structure of the template is slightly different and puts more emphasis on [FAIR principles](#) (Findable, Accessible, Interoperable, Reusable).



- administrative data
- data collection
- documentation and metadata
- ethics and legal compliance
- storage and backup
- selection and preservation
- data sharing
- responsibilities and resources



- summary
- making data findable
- making data openly accessible
- making data interoperable
- increase data reuse
- allocation of resources and data security

If you want to see what a completed data management plan may look like, you can check [public DMPs](#) on the DMPonline website, [Data Management Plan Catalogue](#) of the LIBER Research Data Working Group, or [example DMPs and guidance](#), sorted by research funders, on the Digital Curation Centre's website.

Tools to create a DMP

There are many ways to create a DMP. You can write it on a piece of paper or use a downloaded template in a text document editor. However, there are several web-based tools that can help you prepare a data management plan by providing you with a template, asking you specific questions about data management or providing you with further guidance on how to answer the questions. Below, we introduce two such tools: **DMPonline** and **Data Stewardship Wizard**.

DMPonline

[DMPonline](#) is a publicly available web-based tool provided by the Digital Curation Centre (DCC).

The tool includes a number of pre-set templates based on the specific requirements listed in funder policy documents (you can find the [list of available templates](#) on the DMPonline website) and you create a DMP by answering questions for the selected template in the form of free text. If your funder or institution do not have specific requirements for a DMP, you might use a generic DCC template (see the picture above).

The tool also includes **guidance** that helps the user fill out individual sections. You can **collaborate** on the DMP with your colleagues setting different access rights to the DMP, and you can also **share your plan publicly**. Finally, you can **download** your plan in different formats (e.g., csv, html, docx, pdf, or json).

My fantastic research project

Data Stewardship Wizard

[Data Stewardship Wizard](#) (DSW) is a publicly available web-based tool developed within the ELIXIR research infrastructure.

The user does not fill out a pre-set template but rather goes through different areas of data management by filling **smart questionnaires** (so called [Knowledge Models](#)) that present relevant questions based on previous answers. As the users answer the questions, they gradually advance their knowledge of various aspects of data management (e.g., licensing, archiving data etc.). The advantage of this tool is that it provides **FAIR metrics** where relevant, guiding the user on how to make their data as FAIR as possible.

DSW, too, offers **guidance** to help you answer the questions (hints based on Data Stewardship for Open Science by Barend Mons, external links to relevant sections of the [RDMkit](#)), supports **version history**, and allows you to **share the project with your colleagues** setting different access rights for them. Finally, you can **export** the DMP in one of the supported templates (Science Europe, Horizon 2020, Horizon Europe, or Machine-Actionable DMP) in different formats (e.g., docx, pdf, html, LaTeX nebo json).

My fantastic research project Share

Questionnaire | Metrics | Preview | Documents | Settings

View | Comments | TODOs | Version history

Current Phase
Before Finishing the Project

Chapters

- I. Administrative information
- II. Re-using data**
- III. Creating and collecting data
- IV. Processing data
- V. Interpreting data
- VI. Preserving data
- VII. Giving access to data

1.5.4.b.1 Will you be making the data itself available in computer readable form to others?

Horizon Europe DMP

It is advisable to make the result of your efforts available in a standard repository. If you answer 'yes' here, do not forget to mention the dataset under the chapter 'giving access to data'

Desirable: Before Submitting the DMP

a. No Feasibility

b. Yes, through a standard repository Necessity

c. Yes, through other means Desirability

1.5.4.b.2 Will you provide machine readable, standardised metadata to others?

Horizon Europe DMP

Desirable: Before Finishing the Project

a. No Feasibility

Further Resources

Digital Curation Centre. Data Management Plans [online]. Available online: <https://www.dcc.ac.uk/resources/data-management-plans>

Digital Curation Centre. 2013. Checklist for a Data Management Plan v.4.0. Edinburgh: Digital Curation Centre. Available online: <https://www.dcc.ac.uk/DMPs/checklist>

ELIXIR. 2021. Data management plan. Research Data Management Kit. A deliverable from the EU-funded ELIXIR-CONVERGE project (grant agreement 871075). Available online: https://rdmkit.elixir-europe.org/data_management_plan

European Commission. Data management. H2020 Online Manual [online]. Available online: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm

Jones, Sarah. 2011. How to Develop a Data Management and Sharing Plan. DCC How-to Guides. Edinburgh: Digital Curation Centre. Available online: <https://www.dcc.ac.uk/guidance/how-guides/develop-data-plan>

Mons, Barend. 2018. Data Stewardship for Open Science: Implementing FAIR Principles. Chapman and Hall/CRC. ISBN: 9781315351148.