



Data Management Plans (DMPs)

Introduction to Data Management Practices course NBIS DM Team

data-management@scilifelab.se



https://nbisweden.github.io/module-dmp-dm-practices/index.html

Data Management - Now what?



What is a DMP?

- A document **addressing requirements and practices** for managing the project's data, code and documentation throughout the data life cycle
- Outlines the data management strategies in a project, how the data is:
 - \circ collected
 - documented
 - \circ organized
 - \circ preserved





Why write a DMP?

- Identify gaps in current data management strategies (reduce time spent later on)
- Facilitate collaboration by setting project wide **standards** (data organisation, naming conventions, metadata standards, vocabulary, ...)
- **Cost** estimation
- Clarify responsibilities
- Obtain **well-managed** research data (which enables reproducibility and reusability)
- First step towards **FAIR**ness
- Requirement from funders and other stakeholders for reasons of transparency, openness and return on investment



When write a DMP?

A DMP is a **living document** that will develop throughout the project:

- **Project planning**: Outline the strategies to be able to estimate the resources needed, so this can be included in the proposal for funding.
- **Project start**: Complete with details e.g. about documentation, data quality measures, file and folder strategies, etc.
- **Project end**: Update with e.g. links to published data and details about archiving (what data and where).



The main parts of a DMP

1. Description of data

 What types of data will be created and/or collected, in terms of data format and amount/volume of data?

2. Documentation

 How will the material be documented and described, with associated metadata relating to structure, standards and format for descriptions of the content, collection method, etc.?

3. Storage and backup

 How is data security, storage and backup of data and metadata safeguarded during the research process? Reuse and production of research data

Documentation procedures and standards

Storage, security and backup



4. Legal and ethical aspects

 How is data handling according to legal requirements safeguarded, e.g. in terms of handling of personal data, confidentiality and intellectual property rights?

5. Accessibility and long-term storage

- How, when and where will research data or information about data (i.e. metadata) be made accessible?
- In what way is long-term storage safeguarded, and by whom?

6. Responsibility and resources

- Who are the responsible persons for data management?
- What resources (costs, labour input or other) will be required for data management?

Legal & ethical and assurance procedures

Future reuse and long-term access aspects



Responsibilities and resources required

How write a DMP?

MPONLINE

ScilifeLab DSW

DMP templates:

- Provided by funding agencies, e.g. <u>Swedish Research</u> <u>Council</u> and <u>Science Europe</u>
- High-level questions, with no guidance on how to answer
- Use MS Word?

DMP tools:

- <u>DMPOnline</u> Common for universities; Good guidance but not Life Science specific; Free text answer type;
- <u>Data Stewardship Wizard</u> Provided by <u>SciLifeLab</u>; Life Science specific guidance; Many questions with answer options;



Key Points

- A data management plan (DMP) is a document that describes the data produced in the course of a research project.
- A DMP allows for well-managed data, and funding agencies often requires a DMP for transparency and return on investment.
- A DMP is a living document, the first version is written during project planning, and is then updated as the project proceeds.
- ➤ There are standard templates available e.g. at funder agencies, and tools to assist when writing.

