

Workshop

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Effective Data Management

**Data Management Plans and
Metadata for Reusability and
Compliance**

Overview of the workshops

Introductions

FAIR data

Data Management Plan

Metadata

Exercise (20 min)

Feedback

Closing remarks and Q&A

What are the FAIR data principles?

FAIR is a set of principles created with the intention of making data and other outputs more available to, and reusable by, others. The FAIR principles seek to enhance data's ability to be machine-discoverable and usable.

F A I R



Findable



Accessible



Interoperable



Reusable

- **Sufficient metadata**
- Assigned a unique identifier (e.g., DOI)
- Indexed in a searchable resource

- **Metadata are available**, even if data is not
- Retrievable using a standard protocol (i.e. retrievable online)

- Data and collections must have clear usage licenses and clear provenance

- File formats should be non-proprietary and open
- Data must share a common structure
- **Metadata must use recognised, formal terminologies for description**

The benefits of FAIR

- Maximise the value and usability of data and code
- Enhance opportunities for collaboration
- Ensure proper recognition for your contributions
- Accelerate research progress
- Increase research accountability and reproducibility
- Promote effective data management and long-term preservation
- **It's becoming more required** - meet growing requirements from funders and institutions

Data Management Plan

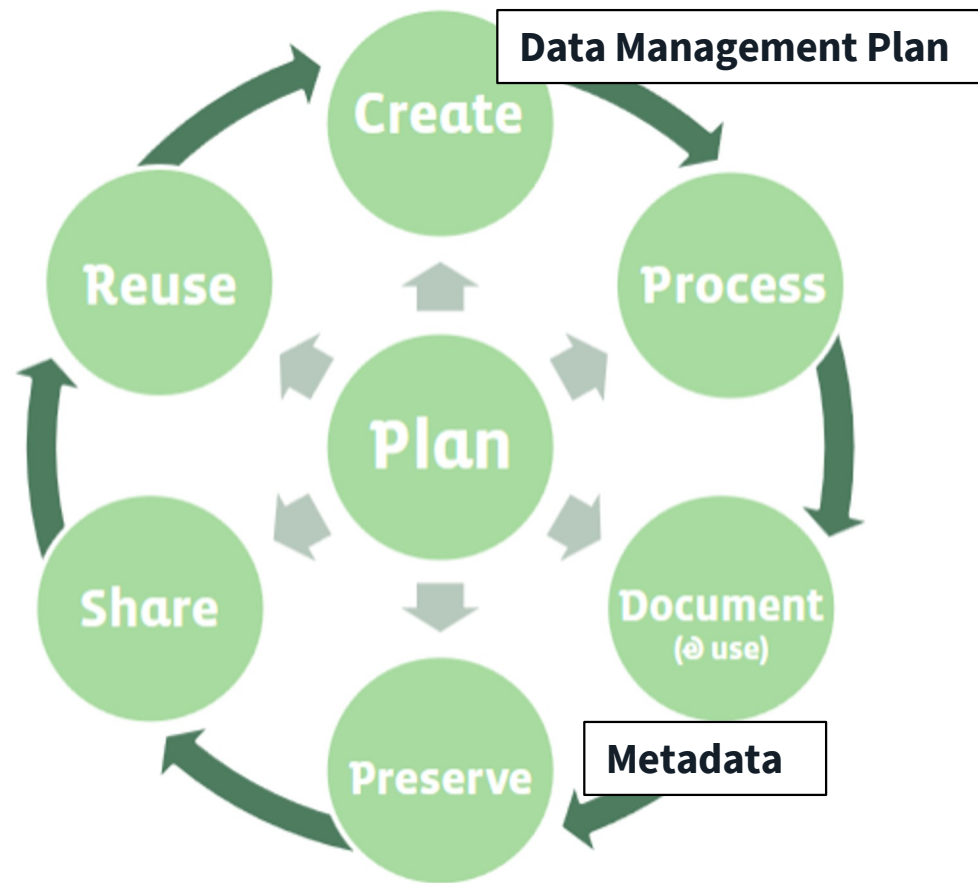


Fig. 1 The data lifecycle

DMP

A data management plan helps achieve optimal handling, organising, documenting and enhancing of research data.

DMP TUoS Library website:

<https://www.sheffield.ac.uk/library/research-data-management/planning>

Metadata

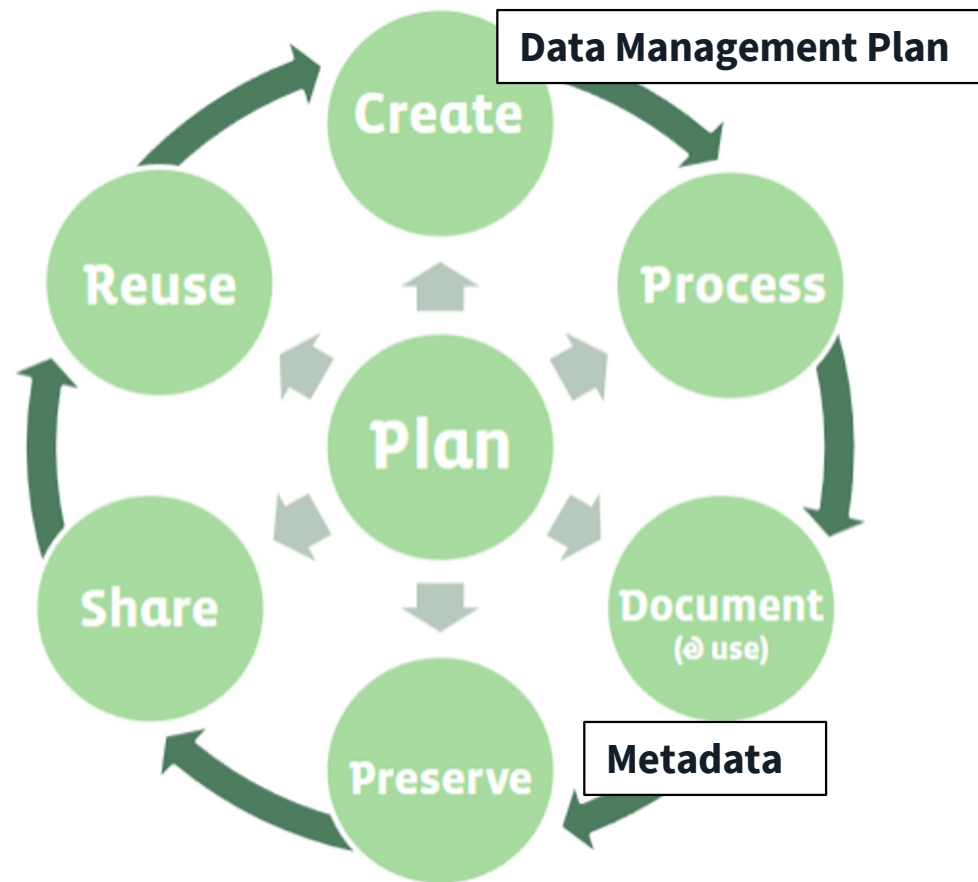


Fig. 1 The data lifecycle

Metadata

General information

1. Title and project description
2. Contact details
3. Date of data collection
4. Information about geographic location of data collection

Data and file overview

1. For each filename, a short description of what data it contains
2. Date that the file was created

Sharing and access information

1. License
2. Description of methods for data collection or generation
3. Description of methods used for data processing

Data-specific information

Contains information (metadata) that will help you and others to understand and use the data.

“README” style metadata

If a template of the metadata is unknown (not provided by a repository) create a “README” style metadata for a dataset.

Exercise

Conclusions and Q&A

Additional resources:

<https://tinyurl.com/DmpMetadata>