

Your go-to guide to making your data Findable, Accessible, Interoperable, and Reusable (FAIR)

So that you and others can get the most out of your data, it is important that you adhere to the **FAIR principles** to ensure your data are **Findable, Accessible, Interoperable, and Reusable** – whilst making your data openly available where it is safe to do so. This is no small task, so here are some ideas to help you get started:

1 Start with a management plan

An output management plan (OMP) is a useful starting point for collecting or creating data, software, research materials, and intellectual property. Creating an OMP before you begin your research, and updating it throughout the research cycle, will help ensure that your outputs are as open and **FAIR** as possible when your project is complete.

Some funders require grant-holders to produce a plan as part of their application for funding, and/or after funding has been secured.

You should consider:

- What outputs you will be creating or collecting, and how these will be documented
- What ethical or legal requirements, if any, apply to the outputs
- How you will organise, store, secure, and share the outputs
- What resources are required and who is responsible

2 Describe and document your data for humans and machines

Describing how your data were created, how they are structured, and what they mean is crucial to making your data **reusable**. As a general rule, someone who is not familiar with your data should be able to understand what it is about using only the metadata and documentation provided.

Good metadata is clearly associated with the dataset it describes and is available in a machine-readable format, such as text or RDF. Depending on your field of study, there may already be standards in place that will help guide how your data and metadata should be structured, formatted, and annotated.

3 Preserve your data

Data preservation helps ensure that your data will be **accessible** and **reusable** in the future.

Best practices for data preservation include:

- Backing up data files regularly
- Storing master copies of data files in open formats
- Validating preserved data files regularly
- Using more than one form of storage for data files
- Appropriately securing data physically, and/or on any network or computer on which they are held

Bonus!

These practices also support reproducibility.



Delve into the details

This is the first in a series of guides to help you be **FAIR**.

Advance your workflow with information on formatting your data in spreadsheets, selecting an appropriate repository, and openly licensing your data.

- [Spreadsheets](#)
- [Repositories](#)
- [Licensing](#)

Toolbox

- [Cambridge Data Management Guide](#)
- [Australia ANDS Guide](#)
- [University of Manchester Research Data Management](#)
- [JISC Data Management Toolkit](#)
- [Frictionless Data Field Guide](#)
- [UK Data Archive Managing and Sharing Data](#)
- [Open Data Institute](#)
- [Digital Curation Centre](#)
- [Data Carpentry](#)
- [DMP Online](#)
- [Go FAIR Initiative](#)