

Jihočeská univerzita  
v Českých Budějovicích  
University of South Bohemia  
in České Budějovice

# Data Steward

Empowering Data  
Excellence

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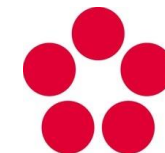


# Data Stewardship

Data stewardship is the practice of ensuring an organization's data is accessible, trustworthy, usable, and secure.

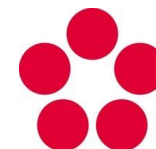
The data stewardship mission typically involves several key objectives:

- Data Governance
- Data Accessibility
- Data Collaboration and Sharing
- Data Security and Privacy



# Data Stewardship

Data stewards are individuals or teams responsible for managing specific sets of data within an organization. They oversee every stage of the data lifecycle, from collection and storage to analysis and dissemination.

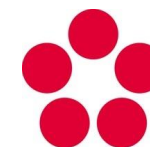


# Open Science and Open Access

- Open science and open access are related concepts that aim to make scientific research and scholarly publications more accessible and transparent to the public.
- It operates on the principle of being *'as open as possible, as closed as necessary'*.
- The European Open Science Cloud (EOSC) is a European initiative aimed at supporting open science practices in the field of research data management. It is now being implemented in the Czech Republic.

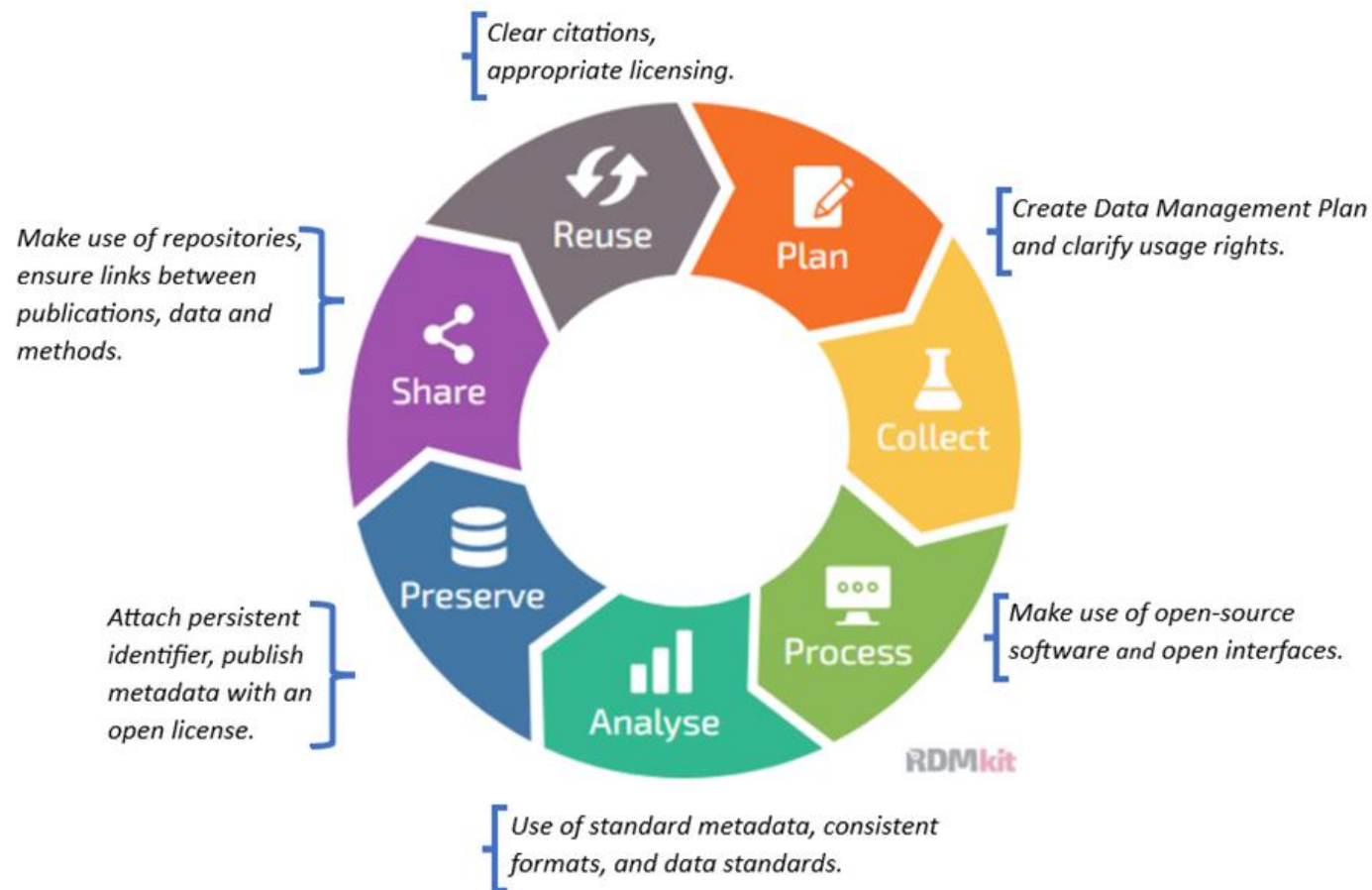
# How can a data steward assist you?

- Managing metadata, creation of Data Management Plan (DMP) to support effective data management which has been a mandatory part of Horizon, GAČR and TAČR projects.
- Implementing the FAIR principles.
- Assist in storing research data in a trusted repository or university's data repository. These repositories enable public access and long-term preservation.
- Making your research data available under an appropriate license, which defines the degree of publicity and rights to use your data.

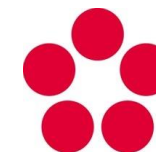


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# A FAIR Approach to Data Lifecycle



Reference: [https://rdmkit.elixir-europe.org/data\\_life\\_cycle](https://rdmkit.elixir-europe.org/data_life_cycle)



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# FAIR Checklist

## Findable

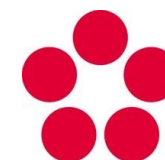
It should be possible for others to discover your data. Rich metadata should be available online in a searchable resource, and the data should be assigned a persistent identifier.

- A persistent identifier is assigned to your data
- There are rich metadata, describing your data
- The metadata are online in a searchable resource e.g. a catalogue or data repository
- The metadata record specifies the persistent identifier

## Accessible

It should be possible for humans and machines to gain access to your data, under specific conditions or restrictions where appropriate. FAIR does not mean that data need to be open! There should be metadata, even if the data aren't accessible.

- Following the persistent ID will take you to the data or associated metadata
- The protocol by which data can be retrieved follows recognised standards e.g. http
- The access procedure includes authentication and authorisation steps, if necessary
- Metadata are accessible, wherever possible, even if the data aren't



# FAIR Checklist

## Interoperable

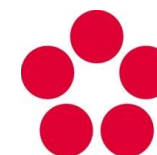
Data and metadata should conform to recognised formats and standards to allow them to be combined and exchanged.

- Data is provided in commonly understood and preferably open formats
- The metadata provided follows relevant standards
- Controlled vocabularies, keywords, thesauri or ontologies are used where possible
- Qualified references and links are provided to other related data

## Reusable

Lots of documentation is needed to support data interpretation and reuse. The data should conform to community norms and be clearly licensed so others know what kinds of reuse are permitted.

- The data are accurate and well described with many relevant attributes
- The data have a clear and accessible data usage license
- It is clear how, why and by whom the data have been created and processed
- The data and metadata meet relevant domain standards





# Metadata

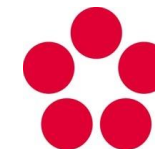
- Metadata provides essential details about the content, structure, and characteristics of the data, facilitating its discovery, interpretation, and use.
- An easy way to apply metadata to your dataset is using a spreadsheet. It is also possible to use a README file to describe metadata fields about the overall study and define controlled vocabularies for the attributes in the columns.
- Choose a standard metadata for your dataset and an appropriate repository to deposit your data.

[Dublin core metadata schema \(DCMI\)](#)

[RDA standards](#)

[Fairsharing](#)

[Data Curation Centre metadata list \(DCC\)](#)



# Data Management Plan

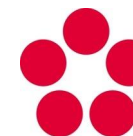
A data management plan (DMP) is a formal document outlining how research data will be handled throughout the entire lifecycle of a research project.

## Key Components:

- Introduction and Overview
- Data Description
- Data Collection and Acquisition
- Documentation and Metadata
- Storage and Backup
- Data Security and Access Control
- Data Sharing
- Data Preservation and Archiving

## Useful tools to create DMP:

- [Data Stewardship Wizard \(DSW\)](#)
- [DMPOnline](#)
- [DMPTool](#)
- [Argos](#)
- [easyDMP](#)



# Repositories

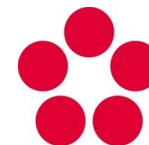
A centralized space to store, manage, organize data for data analysis, sharing and reporting.

Many funding agencies and institutions are developing policies and infrastructure to support research data management and sharing through centralized repositories.

*Which repository to choose?*

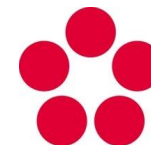
- Deposit data to discipline-specific repositories. ([EMBL-EBI Data Submission Wizard](#))
- Make sure to choose a trusted repository. Search in a global registry: [re3data](#) , [FAIRsharing](#), [OpenDOAR](#)
- Use the University repository (<https://dspace.jcu.cz/>)
- Deposit data in a general-purpose repository ([Figshare](#), [Zenodo](#), [Dryad](#), [Harvard Dataverse](#))

OpenAIRE guide on “[Find a trustworthy repository](#)”



# Benefits of Research Data Management

- Reduced risk of discrepancies and data loss ( data integrity and quality assurance)
- Reproducibility and transparency in research.
- Promotes data accessibility and sharing.
- Avoid legal and ethical risks.
- Enabling researchers to find, reuse, and build upon existing data rather than duplicating efforts or collecting redundant data.
- Long-Term Preservation
- Enhanced Collaboration



# Useful Links

- How to be FAIR with your data: <https://zenodo.org/records/3405141>
- Open Data: <https://www.lib.jcu.cz/en/open-science/open-data>
- Open Access: <https://www.lib.jcu.cz/en/open-science/open-access>
- European Open Science Cloud (EOSC): <https://www.eosc.cz/>
- Research Data Management: <https://rdmkit.elixir-europe.org/>

**Thank You !**