UiT The Arctic University of Norway

15. Jun. 2021 - Data Management Planning workshop for Life Science Projects

Open Science policy… and institutional DMP

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University library of UiT,

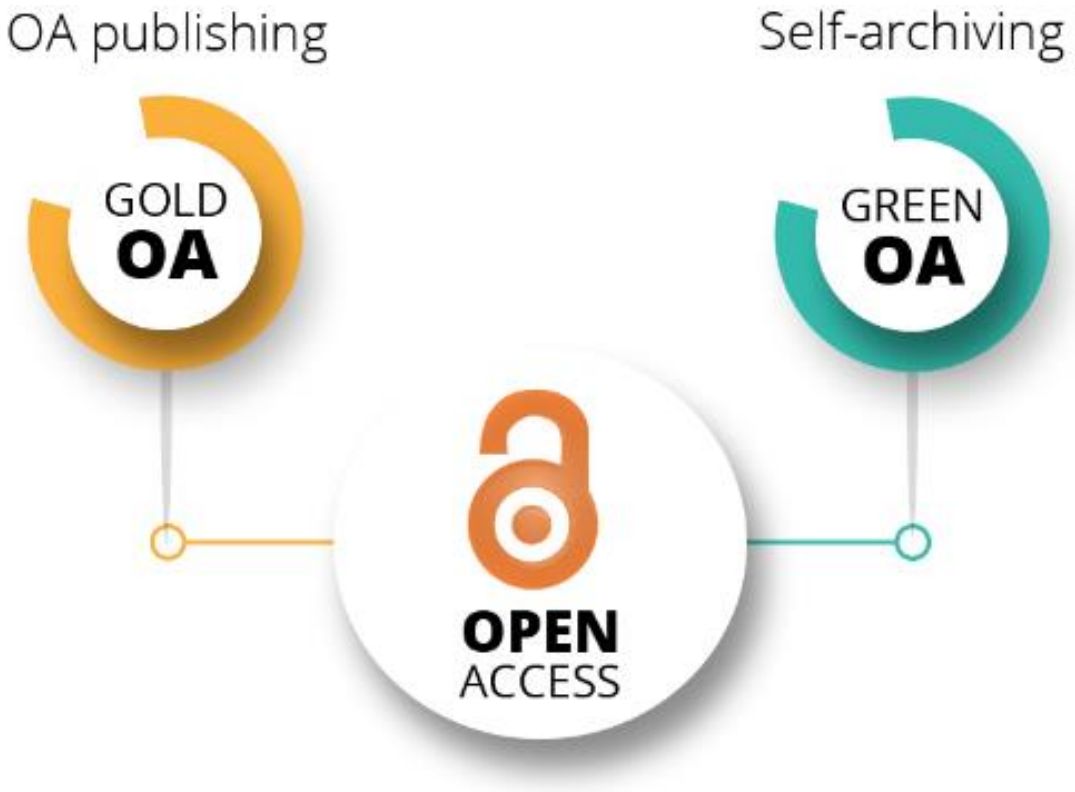
The arctic university of Norway

Open Science at UiT

Open Access to articles/books:
UiT's Open Access policy states that researchers **shall** publish in channels that offer the freest possible access to the publications.

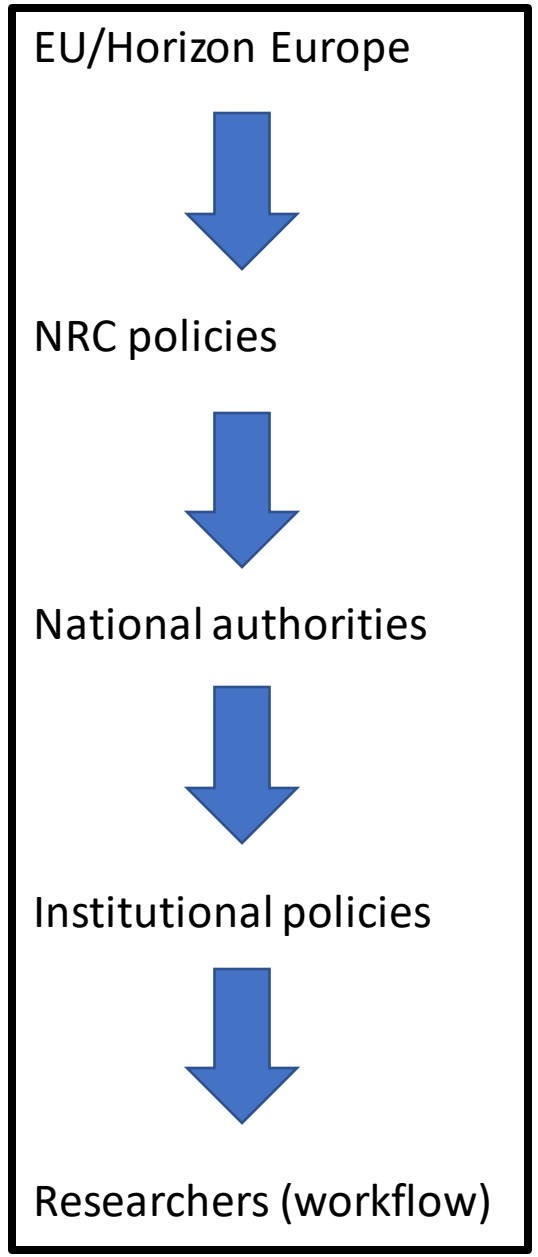
Open research data:
All research data **shall** be made openly accessible. Exceptions to this rule will be when other considerations demand limitations to the access (security, personal privacy, commercial or legal nature).
The policy is here.

Open education/teaching/innovations:
A new policy on digital learning resources (Jan. 2021 – not official yet)…..



Aims and ambitions for Open Science policy (under Horizon Europe)

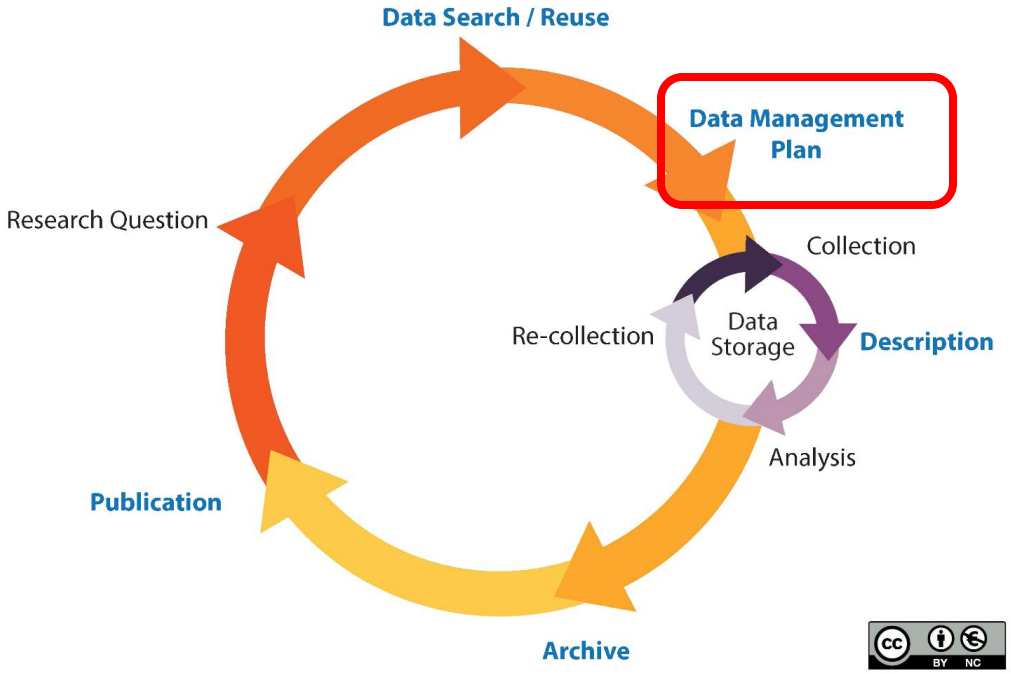
- FAIR and Open Data should become the default
- European Open Science Cloud - store, share, process and reuse
- New generation metrics must be developed
- Mutual learning exercise on open science - rewards for researchers to engage in open science activities
- Future of scholarly communication - scientific publications should be freely accessible)
- Rewards - evaluation systems should fully acknowledge open science activities)
- Research integrity & reproducibility of scientific results - commonly agreed standards of research integrity
- Education and skills - all scientists in Europe should have the necessary skills)
- Citizen science - the general public should be able to make significant contributions



UiT - Data Management Plan

UiT`s DMP policy

A data management plan (DMP)
is plan that documents how you
are going to manage your research
data during and after the project period.



Adapted original source:
The University of California, Santa Cruz,
Data Management LibGuide, Research Data Management Lifecycle, diagram,
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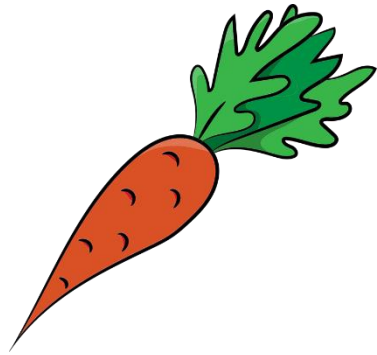
Advantages for researcher (1)



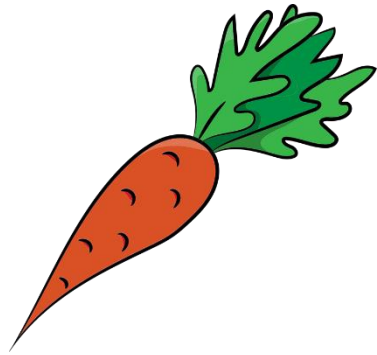
First of all : **It is a useful tool for you as a researcher**

- Helps you to **keep track on your data** throughout the whole project
  - Planning of everything that has to do with **data management**
  - Assures **quality of data** produced in your project
  - Assures **future re-use** of your data

- Gives an **overview of costs** related to data management
  - Include in your budget when applying for funding!

- Helps you to **save time** and extra work later on
  - Choose **right file formats** for archiving from the start
  - **Document and structure your data** for archiving from the start

Advantages for researcher (2)



- Gives funders, supervisors, colleagues and employer an **overview of your plans**
  - Receive **feedback and advice**

- Shows **accountability**
  - A good DMP **positively influences** your project proposal

- Helps to make your research data as **FAIR** as possible

The FAIR Data Principles

Findable
Metadata and data should be easy to find for both humans and computers.

Accessible
Easy to access – technical aspect

Interoperable
To search, compare and process both metadata and data across archives and systems

Reusable
Data can be replicated and/or re-used through documentation and user licenses

Main requirements from UiT (and funders)

UiT

The researcher shall write a DMP in an early phase of the project and preferably within six months of the start of the project.

Principles and guidelines for research data management at UiT

RCN

The management of research data must be described in a DMP.

RCN's policy for Open Access to research data

ERC

A first version of a DMP should be submitted within the first 6 months of the project

Horizon 2020, Online Manual. Data Management

NORGES ARKTISKE UNIVERSITET • UIT •

The Research Council of Norway

erc European Research Council

Templates for DMPs

Project subject to notification to NSD:

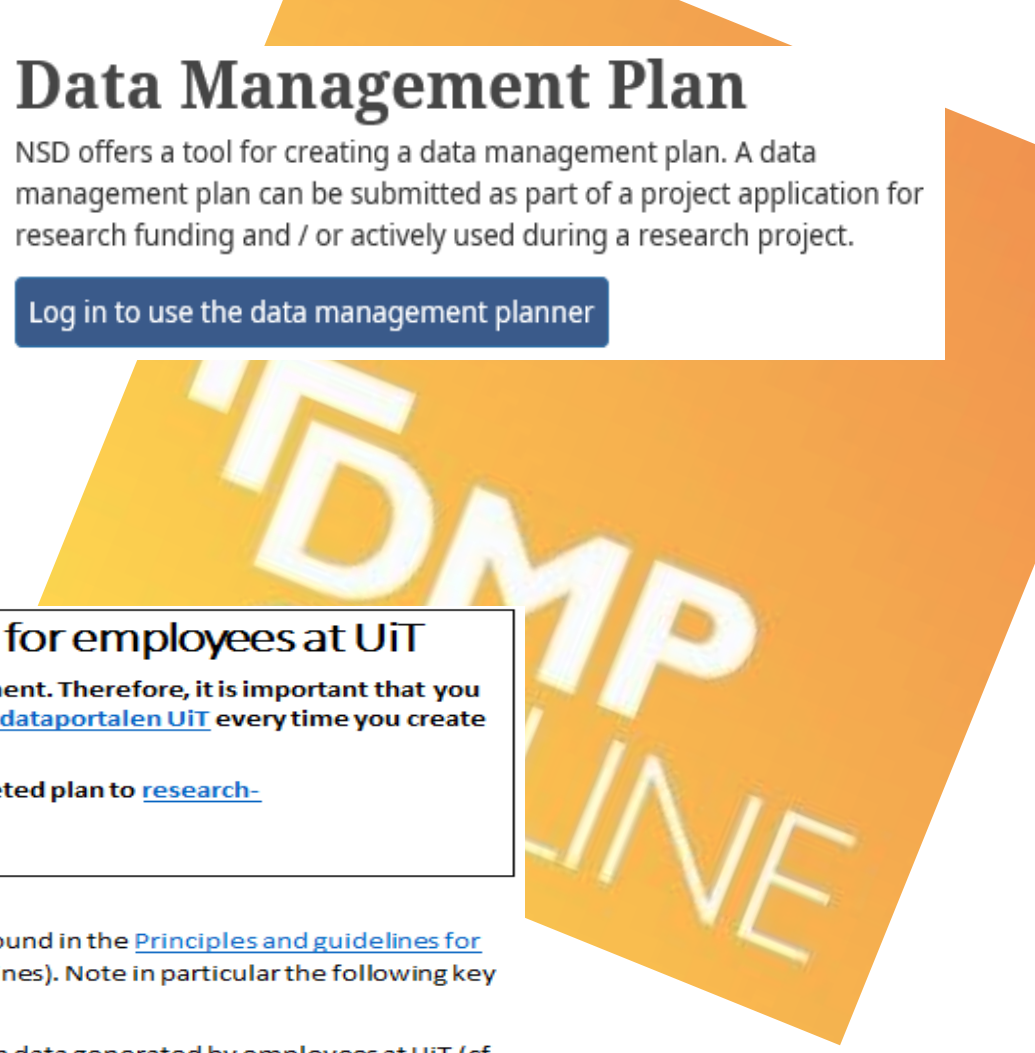
[NSD template]

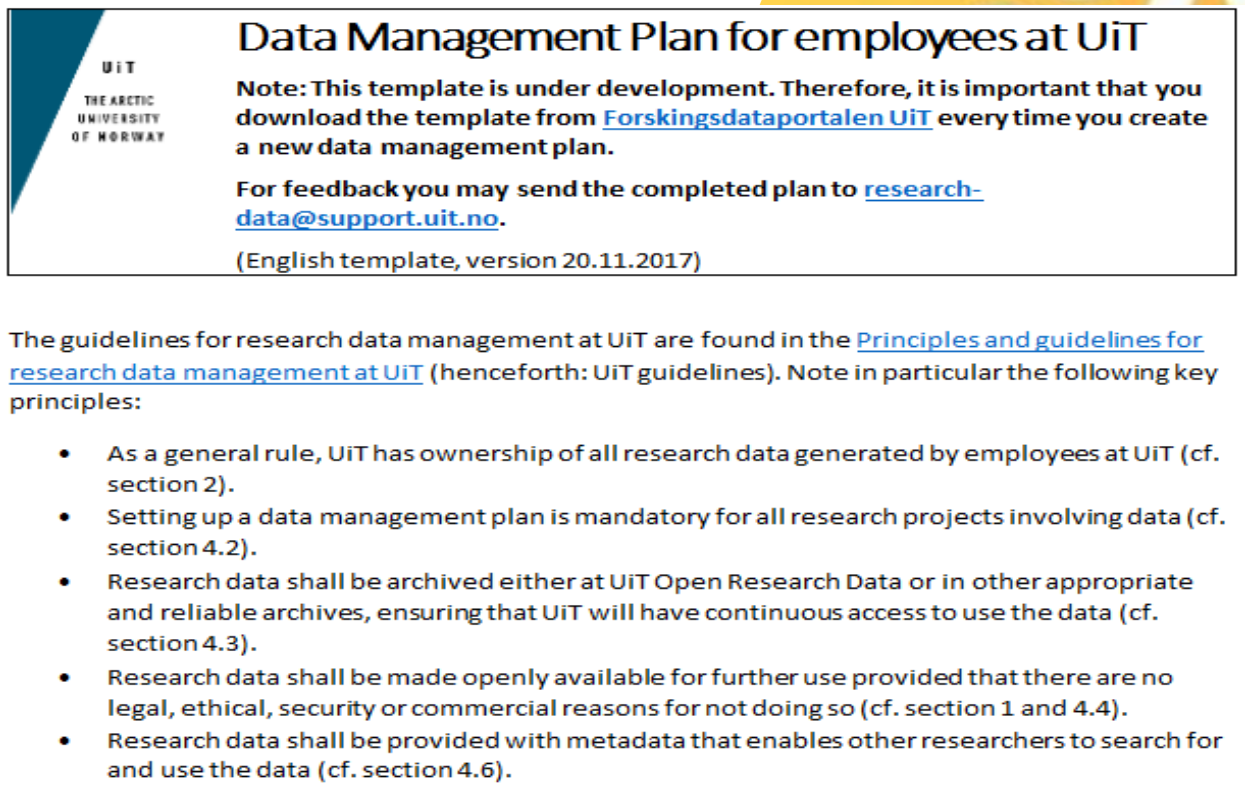
Project funded by EU:

[DMPonline]

All other projects:

[UiT template]





UiT
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Data Management Plan for employees at UiT

Note: This template is under development. Therefore, it is important that you download the template from Forskingsdataportalen UiT every time you create a new data management plan.

For feedback you may send the completed plan to research-data@support.uit.no.

(English template, version 20.11.2017)

The guidelines for research data management at UiT are found in the Principles and guidelines for research data management at UiT (henceforth: UiT guidelines). Note in particular the following key principles:

- As a general rule, UiT has ownership of all research data generated by employees at UiT (cf. section 2).
- Setting up a data management plan is mandatory for all research projects involving data (cf. section 4.2).
- Research data shall be archived either at UiT Open Research Data or in other appropriate and reliable archives, ensuring that UiT will have continuous access to use the data (cf. section 4.3).
- Research data shall be made openly available for further use provided that there are no legal, ethical, security or commercial reasons for not doing so (cf. section 1 and 4.4).
- Research data shall be provided with metadata that enables other researchers to search for and use the data (cf. section 4.6).

Templates for DMPs

UiT template explains most aspects in more detail

Responsibilities and rights
Who is responsible for follow-up and revision of this data management plan? *(Normally the principal investigator, according to section 4.1 of the UiT guidelines.)*
Who is responsible for each activity? *(May vary for collection, documentation, archiving etc.)*
How will responsibilities be distributed among possible external collaborators? Will there be a separate agreement on this? *(A separate agreement may be necessary e.g. for commercial collaboration.)*
Who has the right to manage the data? *(Usually several members of the project group, but not necessarily all members. Manage means collect, structure, revise, process, etc.)*
Who can access the data during the project period? *(Here, access means use (e.g. view or download), but not manage.)*
Who has ownership of the data? *(Normally UiT, unless ownership has been agreed on differently e.g. with external collaborators.)*

Collecting/generating data
What kind of data will be collected/generated (e.g. observations, simulations, interviews)? What are the sources (e.g. corpora or other raw data)?
What standards and methods will be used for data collection/generating?
When will the data be collected/generated?
What type of data will be collected/generated (e.g. text, image, numerical data, sound)?
Is there need for extra hardware or software?
Is there need for special expertise for collecting/generating data?

More information and help

UiT Research Data Portal:

http://uit.no/researchdata

- DMP template
- Principles and guidelines for research data management
- Tips
- Overview of webinars/courses

Research data management training

https://site.uit.no/rdmtraining/

Email:

researchdata@hjelp.uit.no

What should be included in a DMP?

All phases in the RDM lifecycle

- Data re-use
- Data collection
- Data storage
- Archiving and sharing

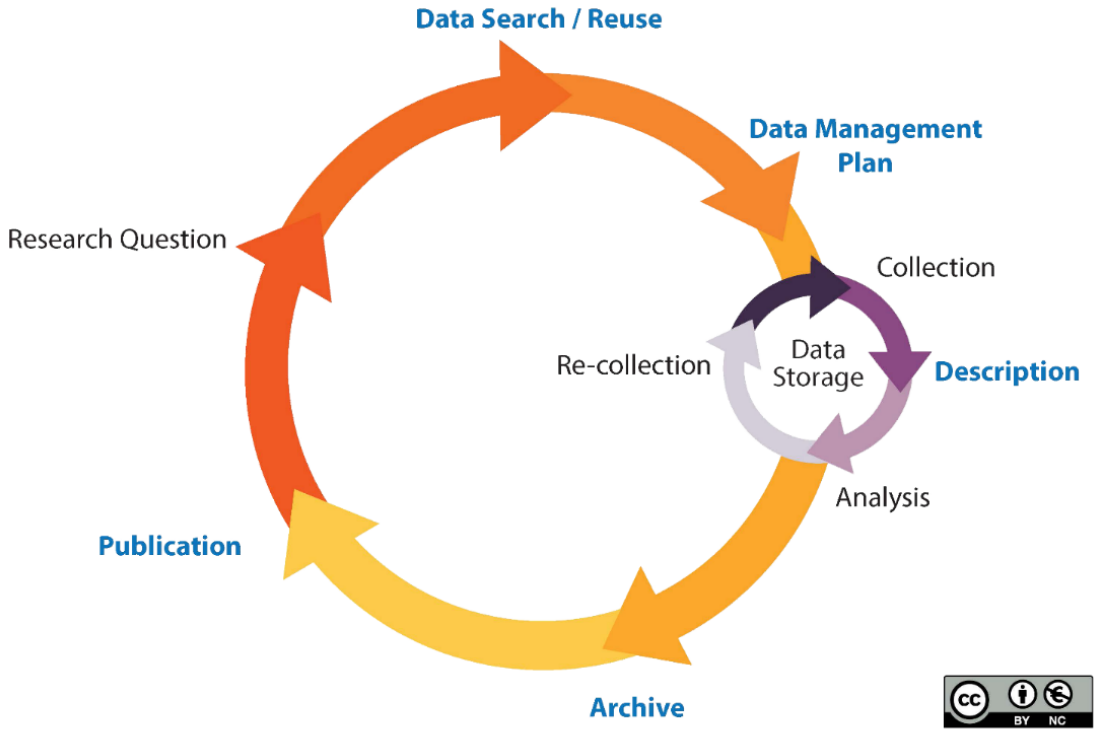
Other aspects:

- General information about the project
- Responsibilities and rights
- Documentation and metadata
- Ethics and consent

Keep in mind:

- [UiTs guidelines for RDM]
- [FAIR Data Principles]

F A I R



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General information about the research project

- Project number and name
- Project period
- Description of project
- Part of a larger research project?
- Funding
- Project leader and participants (name and institution)

Responsibilities and rights

- Who is responsible for follow-up and revision of the DMP?
  - UiT guidelines: The project leader
  - PhD-project part of a larger research project:
    - the project leader is responsible for the DMP of the entire project
    - the PhD student shall also write their own DMP for their part of the project (§11.4 in PhD regulations for UiT)
- Who has ownership of the data?
  - UiT guidelines: UiT: unless something else is agreed upon
- External collaborators?
  - Division of responsibilities and rights
  - Who has right to manage the data? Collect, structure, revision, processing, etc
  - Who can access the data during the project? Use (view or download), but not manage

Own webinar on «Research data and agreements»

Planning phase : Data re-use

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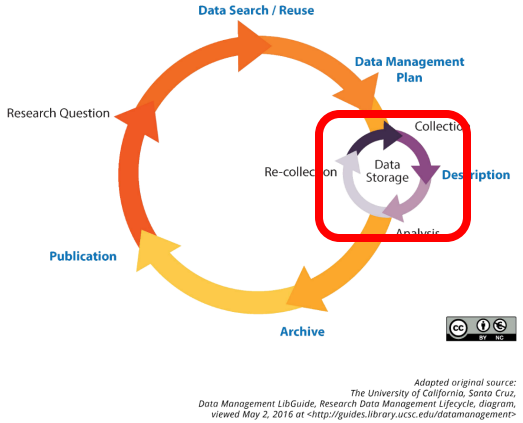
- Are there data in this subject already…? What are the possibilities for reuse?

- Places to search:
  - DataCite
  - BASE
  - Google Dataset Search
  - Registry of research data repositories

Webinar at UiT on «How to search and cite research data»

Active phase: Data collecting



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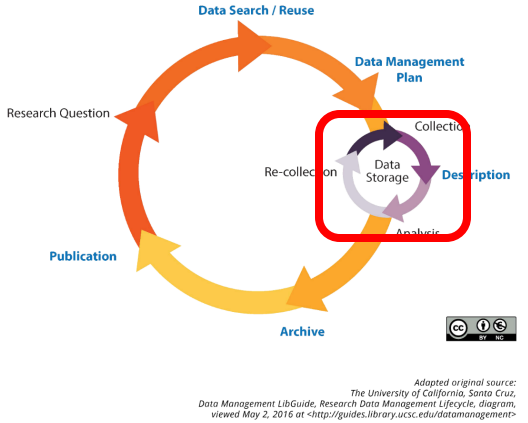
- When will the data be collected / generated?
- What kind of data will be collected/generated?
  - E.g., observations, simulations, interview, text, image, numerical data, sound, etc
- What standards and methods will be used?
  - Description can be reused during publishing of related article and archiving of data
- Need for extra hardware or software? Need for special expertise?
  - In that case: Need for funding?

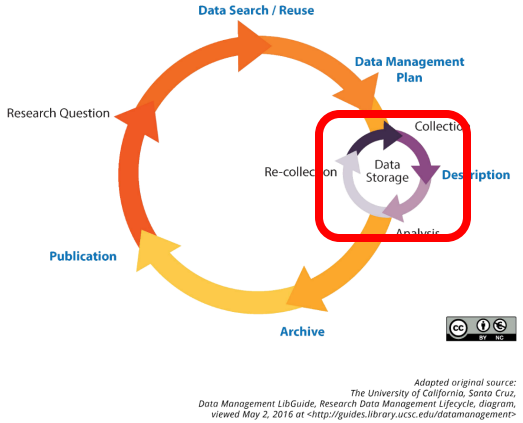
Active phase: Data storage



- What are the procedures for storage and backup, and where will this be done?
  - The IT Department is responsible for data backup provided that UiT facilities are used for storage
- What are the expected file sizes for the data?
- Do you have sufficient storage possibilities or need for extra services?
  - Think budget

Own webinar on «How to store research data»

Active phase: Data storage in the field



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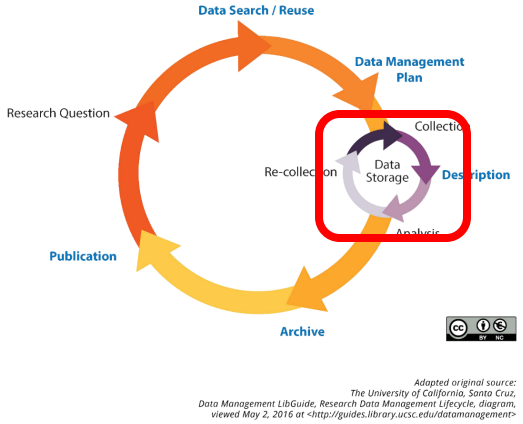
- What are the procedures for safe data storage and backup in the field?
- How will the data be safely transferred from the field to the main storage facility?
- Recording something?
  - What medium will you use?
  - Approved for your kind of data?
- Person sensitive information?
  - Contact IT department for advice
  - e.g. encrypted USBs, active storage TSD

Own webinar on «How to store research data»

Active phase: Data documentation



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- How will the data be documented and described? F I R
  - ReadMe file
  - Metadata (standards)
- What file formats will be used? I
  - Persistent file formats
- What kind of folder structure and filename conventions will be used?

- See UiT Open Research Data deposit guidelines for tips and templates

Own webinar on «How to structure and document research data»

Dataverse

Search | Deposit Guide | Support | Log In

UiT Open Research Data

opendata.uit.no

DataverseNO > **UiT Open Research Data**

Contact | Share

NMDC Node UiT

The Stein Rokkan Research Group for Quantitative Social and Political Science

UiT Tromsø Geophysical Observatory

Tromsø Geophysical Observatory

TROLLing (The Tromsø Repository of Language and Linguistics)

Search this dataverse... | Find | Advanced Search

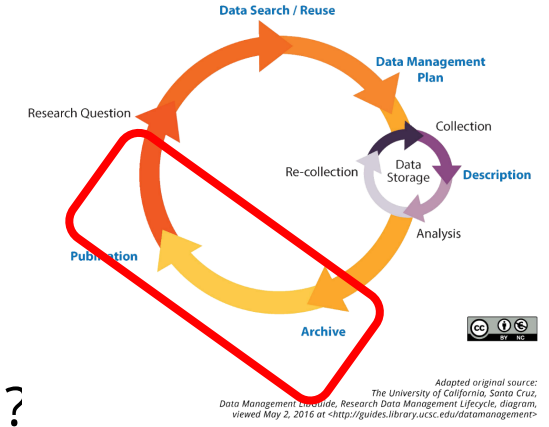
- Dataverses (5)
- Datasets (644)
- Files (5,079)

1 to 10 of 649 Results

Sort

Metadata serving as basis for illustrations of Maximilian Hell's network in the book "Maximilian Hell (1720-1792) and the Ends of Jesuit Science in Enlightenment Europe" by Per Pippin Aspaas and László Kontler (Brill Academic Publishers, 2020)

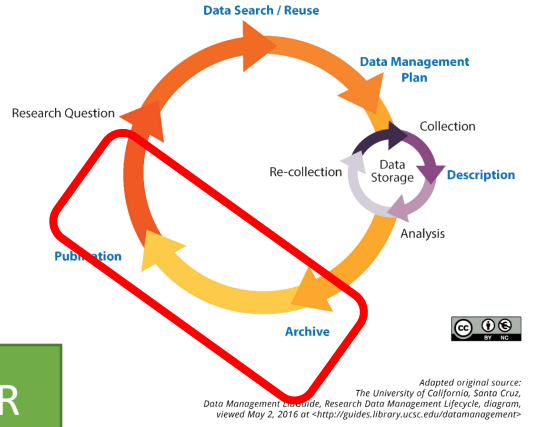
Archiving phase: Archiving and sharing (1)



- Which data will be (long term) preserved and which will be destroyed?
- Will the data or a selection of the data be openly shared?
  - UiT guidelines: *Research data shall be **made openly available** for further use provided that there are no legal, ethical, security or commercial reasons for not doing so*
  - If yes: which data?
  - If no: what is the reason?
- Do the data need processing before they can be shared?
  - Anonymization, convertion to persistent file formats.

Own webinar on «How to share research data»

Archiving phase: Archiving and sharing (2)



F A R

- Where will the data be archived?
  - UiT guidelines: A reliable open archive, ensuring that UiT will have continuous access to use the data
  - UiT Open Research Data or find a repository at re3data.org
- When will the data be made openly available?
  - UiT guidelines: As early as possible

R

- How will the data be licensed for reuse?
  - UiT guidelines: As few limitations on the data as possible
- Are there other conditions, restrictions or embargo on use?

Own webinar on «Rights and licenses»

Ethics and consent

- Special rules for personal sensitive data, e.g. consent, protection of participant identity
- Get consent for archiving and re-use of data:
  - https://nsd.no/personvernombud/en/help/information_consent/index.html
- Contact NSD and personvernombud at UiT: Joakim Bakkevold (personvernombud@uit.no)
- Ethics Portal UiT: http://uit.no/etikk

Feedback on DMP?

University library can check if your DMP is in line with the guidelines and «best-practice» recommendations

Send your DMP to researchdata@hjelp.uit.no for feedback.

Request: Give us time to help you! Don't send your DMP the evening before your deadline ☺

Examples of DMPs

DMPOnline: https://dmponline.dcc.ac.uk/public_plans

DMPTool: https://dmptool.org/public_plans

CESSDA – qualitative data: https://www.cessda.eu/content/download/3536/33233/file/DMPQuestionsQualitativeData.pdf

CESSDA – quantitative data:

https://www.cessda.eu/content/download/3537/33238/file/DMPQuestionsQuantitativeData.pdf

More information and help

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