



DMP WORKSHOP

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Research Data Management Planning Workshops Data Support, Spring 2023

WORKSHOP PROGRAM

Intro

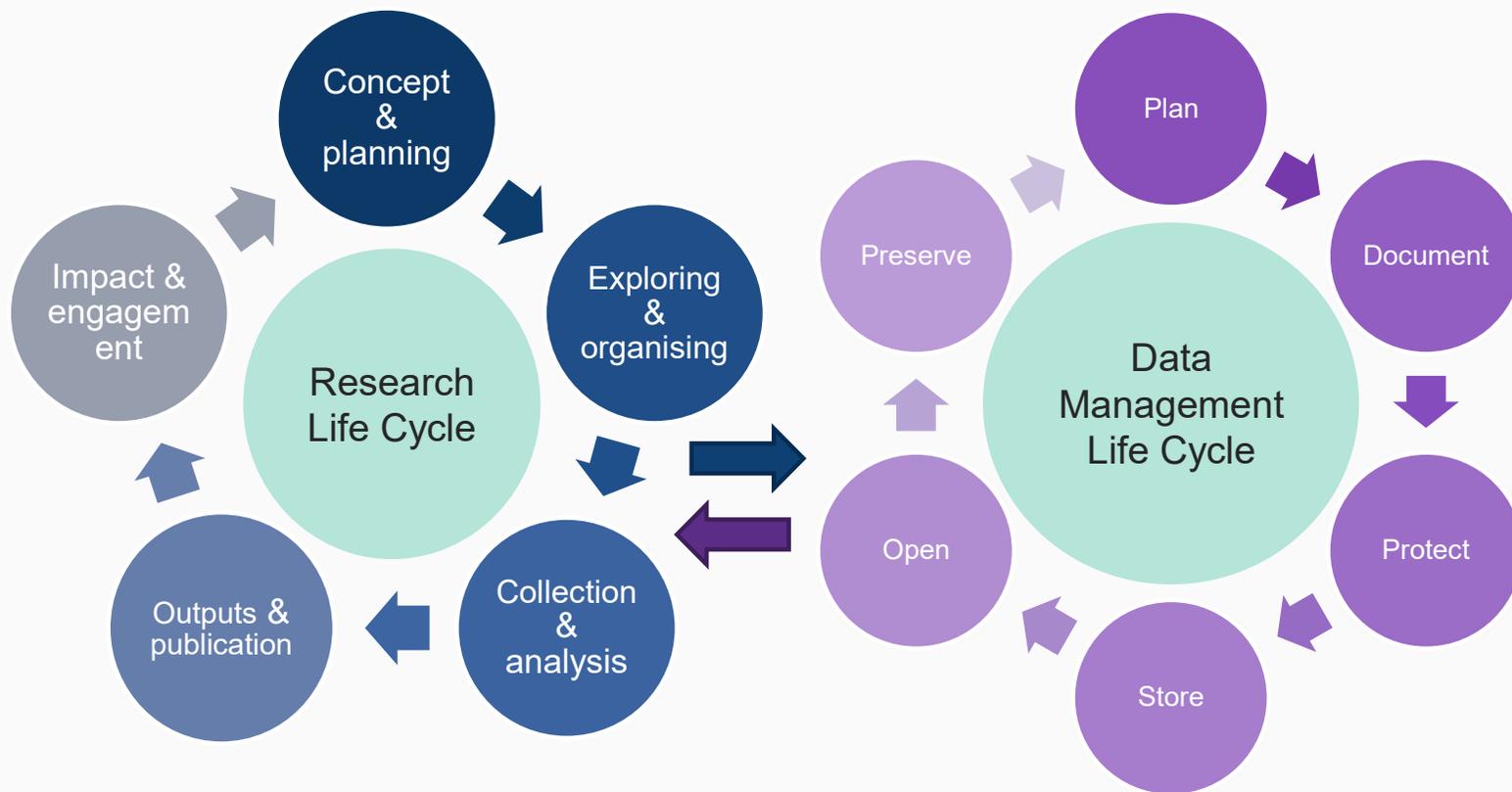
1. Data
3. Documentation and Metadata
6. Resources and Responsibilities
+ Writing and Discussion

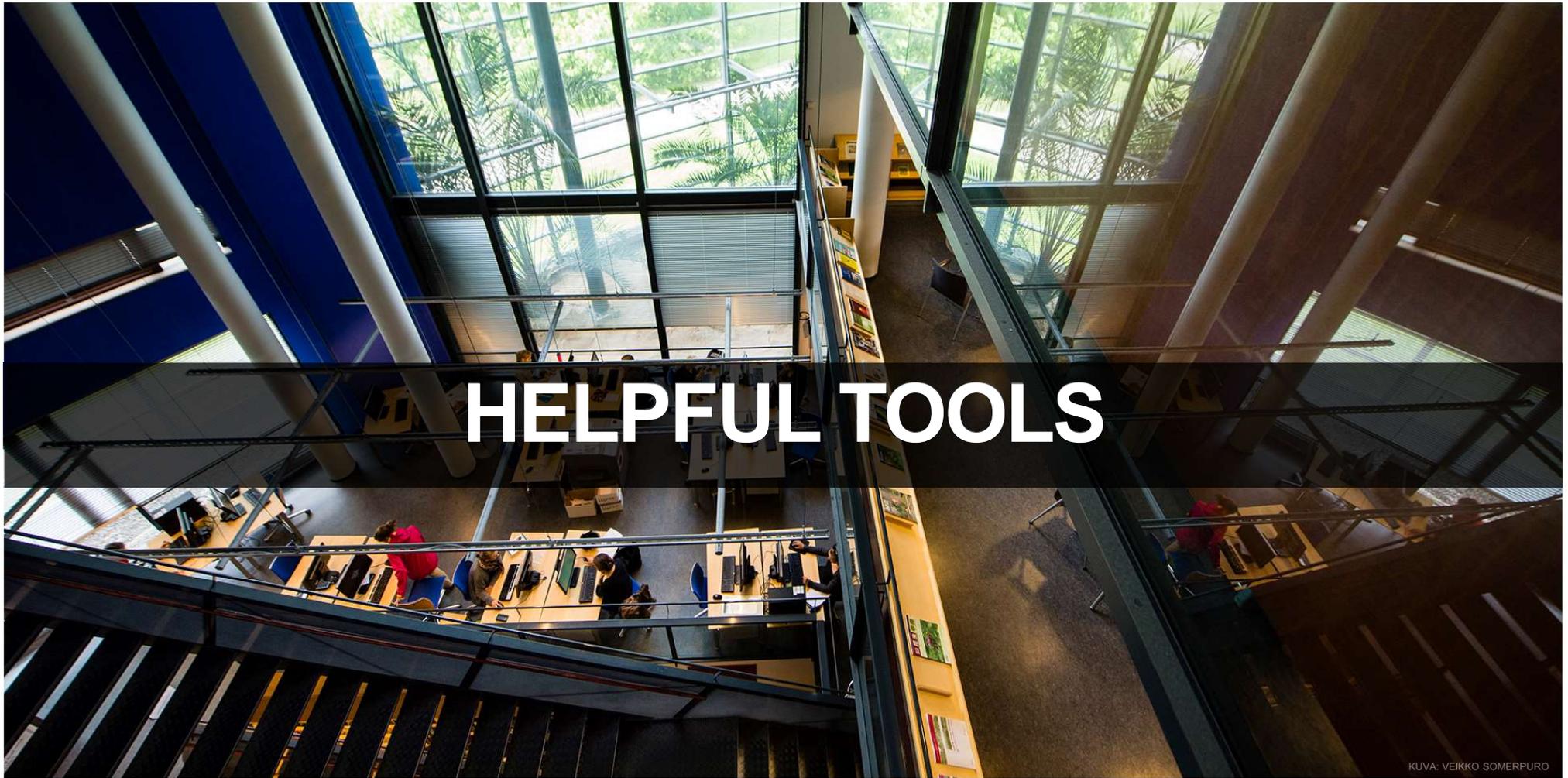
2. Ethical and legal compliance
+ Writing and Discussion

4. Storage during the research project
+ Writing and Discussion

5. Opening, publishing and archiving
+ Writing and Discussion







HELPFUL TOOLS

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RDM RESEARCH GUIDE

- Research Data Management Guide <https://www.helsinki.fi/en/research/services-researchers/data-support-services/research-data-management>
- Might be handy to keep the page open in another window while outlining a DMP with Tuuli

Home / Research / Services For Researchers / Data Support Services / Research data management

RESEARCH DATA MANAGEMENT

We provide assistance in research data management through out the research life cycle including data organization, storing and sharing. On this page you can find guidance to the above mentioned topics and how to answer the general questions of a Data Management Plan (DMP).

Data management planning

A Data Management Plan (DMP) should describe how data is managed during as well as after the active phase of the research project. The plan should be updated as the research project evolves.

The DMP is part of a research plan. To avoid overlap between the DMP and the research plan, you can refer from one document to the other. Introduce data analysis and other methods in your research plan.

In the DMP data is understood as a broad term including:

- data collected by various methods (such as surveys, interviews, measurements, imaging techniques etc.);
- data produced during the research (such as analysis results);
- research sources (such as archive material), and;
- notes and field notes, and
- source code and software.

You can use [DMPTuuli](#), an online tool, to create your data management plan. The list and content below works as a basic guideline to University of Helsinki guidance for data management plan. Open DMPs from UH researchers can be found from [Zenodo](#).

DMP: What's in it for me?

1. Make research more efficient.
2. Comply with funders mandates.
3. Comply with data protection law and protect data subjects.
4. Agree about data ownership, sharing and preservation.
5. Ensure that the necessary resources are available.
6. Make research reproducible and FAIR.

- Data management Planning tool DMPTuuli
- Datanhallinnan perusopas (in Finnish)
- Research data management courses and workshops
- Data management plan review service

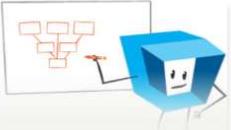


Data management life cycle: Plan, Document, Protect, Store, Open, Preserve

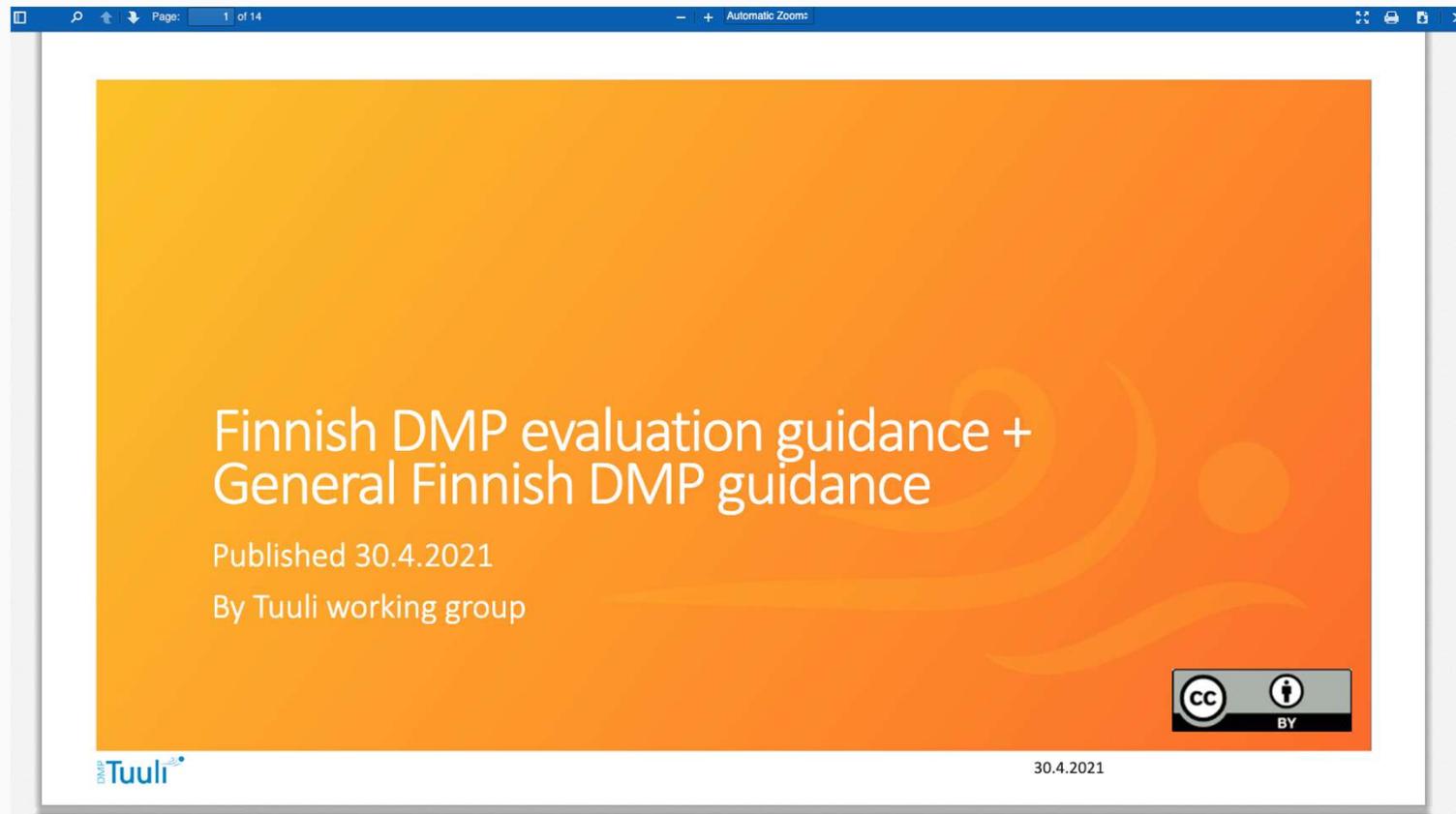
FINNISH SOCIAL SCIENCE DATA ARCHIVE

- FSD's Data Management Guidelines
<https://www.fsd.tuni.fi/en/services/data-management-guidelines/>
- Handy to keep the page open in another window while outlining a DMP with DMPTuuli

CONTENTS OF DATA MANAGEMENT GUIDELINES

 <h3>Why Are Research Data Managed and Reused?</h3> <ul style="list-style-type: none">⊙ Part of good scientific practice⊙ Research funders require data management⊙ Benefits of reuse and open access⊙ Research data life cycle	 <h3>Data Management Planning</h3> <ul style="list-style-type: none">⊙ Data management plan⊙ The data⊙ Rights⊙ Confidentiality and data security	 <h3>Copyright and Agreements</h3> <ul style="list-style-type: none">⊙ Copyright⊙ Agreements between researchers⊙ Agreement concerning the transfer of rights⊙ Authorship in scientific publications and research data
 <h3>Informing about Personal Data Processing</h3> <ul style="list-style-type: none">⊙ Clarity requirements and form of the information⊙ Timing for providing the information⊙ Content of the information⊙ Exceptions to the obligation to provide information	 <h3>File Formats and Software</h3> <ul style="list-style-type: none">⊙ Converting files⊙ Digitisation of research data⊙ Data matrices and statistical packages⊙ Textual data	 <h3>Processing Quantitative Data Files</h3> <ul style="list-style-type: none">⊙ Recording a data matrix⊙ Variable names and labels⊙ Values and value labels⊙ Missing data

Finnish DMP evaluation guidance:
[10.5281/zenodo.4729831](https://doi.org/10.5281/zenodo.4729831)



Use www.dmptuuli.fi

DMP Tuuli Home Public DMPs DMP Templates Help

Welcome

Data management planning tool DMPTuuli helps you to create, review, and share data management plans that meet institutional and funder requirements.

Join the growing number of researchers that have adopted DMPTuuli:

-  15 052 Users
-  17 965 Plans
-  62 Organisations

You can download funder templates without logging in, but from DMPTuuli you will find tailored guidance from many research organisations, including universities and service providers like the Finnish Social Science Data Archive. Why not sign up for an account and try it out?

Sign in Create account

* **Email**

* **Password**

Forgot password?

 Remember email

Sign in

- or -

Sign in with your institutional credentials



DMP AS A DOCUMENT

KUVA: JOEL GRANDELL



KUVA: LINDA TAMMISTO

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DATA MANAGEMENT PLAN (DMP)

- **Avoid overlapping** with the research plan; in research plan refer to DMP and vice versa
- DMP **complements** the research plan:
 - Description of the research material, its significance, collection and acquisition, and (re)use are described in the research plan (part **related to the project execution**)
 - Material and data management, storing, sharing, rights and ownership issues are described in the DMP (part **related to the technical details**)



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DATA MANAGEMENT PLAN (DMP)

- **Read all the questions first!**
- Length 1-3 pages (abstract and potential table excluded)
- Even if the research project does not produce any data, the DMP must be returned with a clear statement of the situation
- DMP has to follow the [AoF's guidelines](#); answer questions which are applicable
 - If some questions are not applicable, justify why!

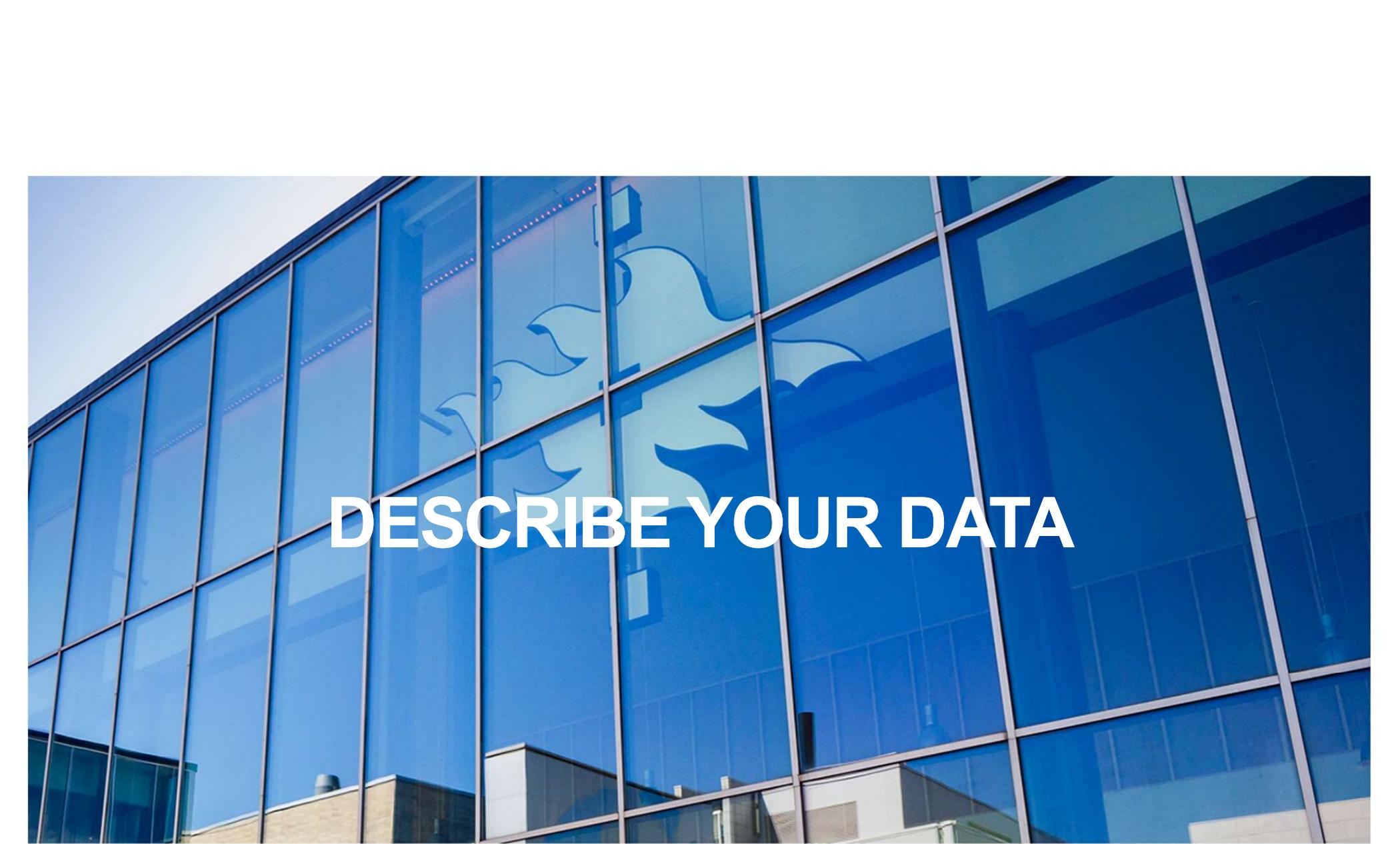
THE DO'S AND DON'T'S OF A DMP



- ... be vague or general
- ... ramble
- ... re-write your research plan
- ... write a "good DMP" for the sake of bureaucracy
- ... write the DMP for Data Support or AoF
- ... write one thing and do another



- ... be precise and unambiguous
- ... stay on point
- ... focus on the data and its lifecycle
- ... think through and write out your data management process
- ... write the DMP for the sake of your current and future self
- ... practice what you preach



DESCRIBE YOUR DATA

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1. GENERAL DESCRIPTION OF THE DATA

1.1 What kinds of data is your research based on? What data will be collected, produced or reused? What file formats will the data be in? Additionally, give a rough estimate of the size of the data produced/collected.

Where to start? List your data types in a table or as bullet point list! Data sheet model [link](#)

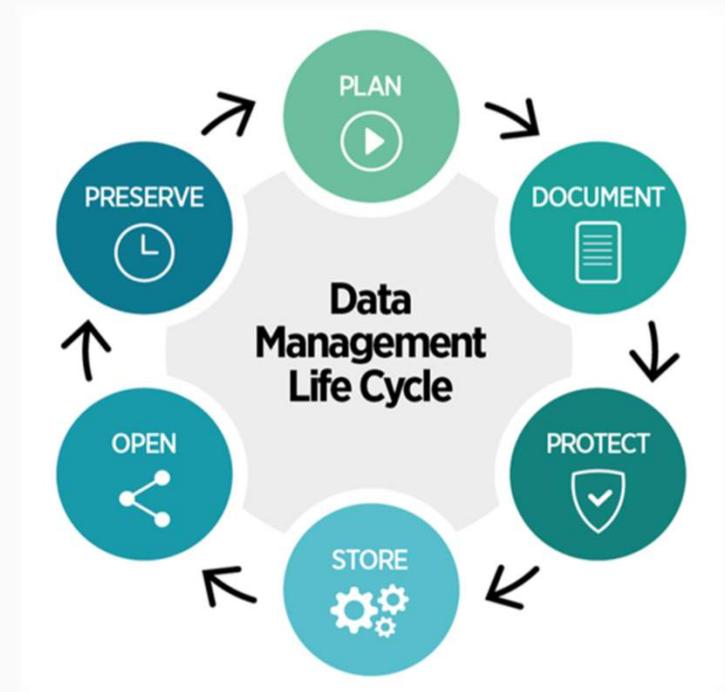
Data type	Source	File format	Sensitivity (controller)	Size
Questionnaire	collected	.csv, .txt	Yes (HUS)	1 Gb
Analysis of the questionnaire	produced	.csv (.xlsx)	No	100 Mb
DNA samples	reused from Biobank	samples	Yes (Biobank)	N=1000

- Explain if any special or uncommon software are needed to view or use the data.
- Clearly describe how data volume or its accumulation has been calculated.

1. GENERAL DESCRIPTION OF THE DATA

1.2 How will the consistency and quality of data be controlled?

- **Clearly recognise possible error sources** during the data lifecycle, to ensure the quality of data.
- **Describe appropriate practices**
 - Data capture
 - Validation/monitoring
 - Versioning
 - Logs, etc





DOCUMENTATION AND METADATA

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3. DOCUMENTATION AND METADATA

3.1 How will you document your data in order to make the data findable, accessible, interoperable and re-usable for you and others? What kind of metadata standards, README files or other documentation will you use to help others to understand and use your data?

- Documentation enables verification and data re-use
- List the **metadata standards** used for each data type. Refer to documentation requirements of data repositories/archives planned to use. Or search standards from <https://www.dcc.ac.uk/guidance/standards/metadata>





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3. DOCUMENTATION AND METADATA

3.1 How will you document your data in order to make the data findable, accessible, interoperable and re-usable for you and others? What kind of metadata standards, README files or other documentation will you use to help others to understand and use your data?

- Describe how the documentation protocol is agreed, **if no standard is available for a data type.**
- Outline **who is/are responsible for the documentation** during the data lifecycle (collection, analysis, storing, publishing, etc.)



Teksti

RESOURCES AND RESPONSIBILITIES

KUVA: JOEL GRANDELL

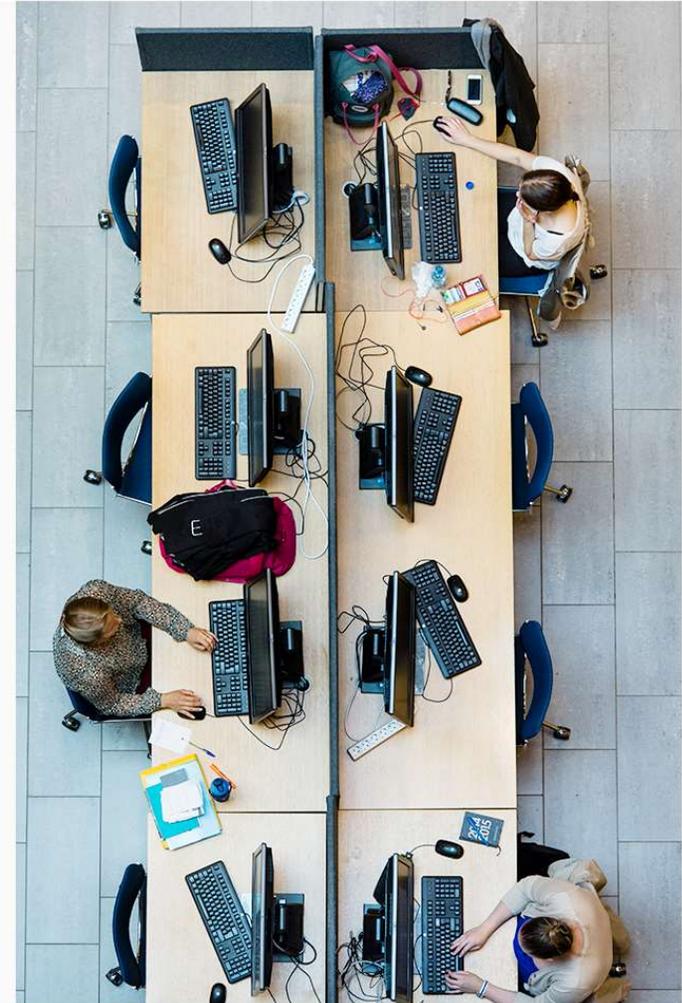
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6. RESOURCES AND RESPONSIBILITIES

6.1 *Who (for example role and institution) will be responsible for data management?*

- **Outline roles and responsibilities** described in the DMP and name the individuals where possible: e.g. data management / stewardship, data capture, metadata production, data quality, storage and backup, data archiving, and data sharing
- **State who is responsible** for the data resulting from the project after the project has ended.
- **State the procedure for transferring** these responsibilities (in case the person is expected to leave the project).





6. RESOURCES AND RESPONSIBILITIES

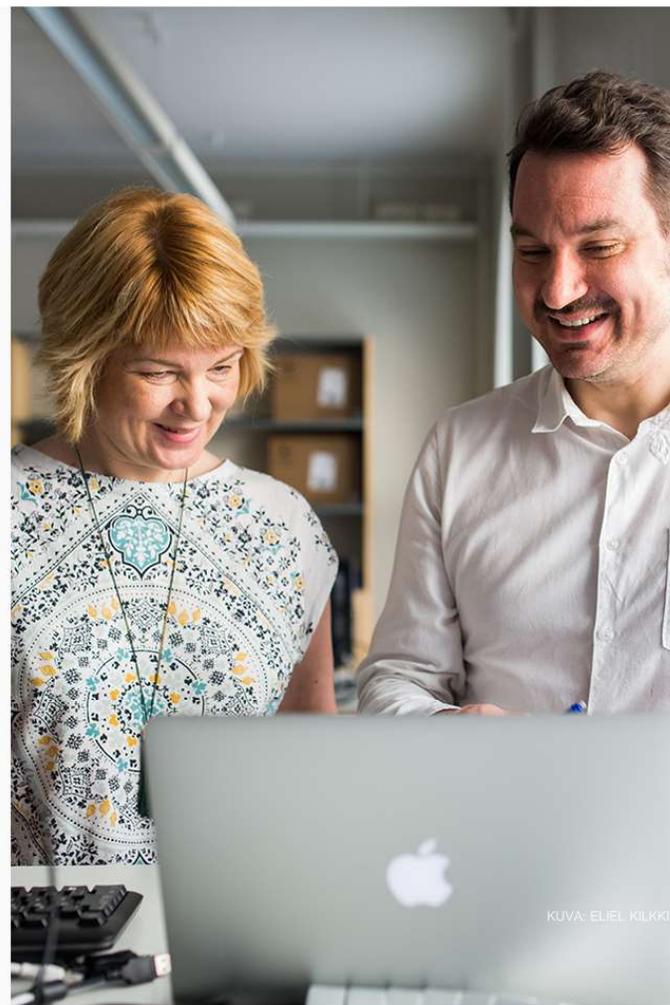
6.1 Who (for example role and institution) will be responsible for data management

- **Explain how data management responsibilities are coordinated** in collaborative projects.
- **Indicate who is responsible for implementing the DMP** and updating it during the project

6. RESOURCES AND RESPONSIBILITIES

6.2 *What resources will be required for your data management procedures to ensure that the data can be opened and preserved according to FAIR principles (Findable, Accessible, Interoperable, Re-usable)?*

- **List the required resources and facilities** for data management
 - (e.g. storing environment, computational facilities, hardware, staff time for preparing data for sharing, deposit, and repository charges) and refers to the specified financial costs in the budget, according to funder requirements.



6. RESOURCES AND RESPONSIBILITIES

- 6.2 *What resources will be required for your data management procedures to ensure that the data can be opened and preserved according to FAIR principles (Findable, Accessible, Interoperable, Re-usable)?*
- Provide **estimates of time and money needed to prepare the data** for sharing, publishing, preservation (data curation).
- Describe **investments to expertise**, like how lawyer, data steward, transcription service, IT expert's consultancy is purchased, or are these experts hired to the project.
- Outline **what kind of resources is needed on training** data management skills.





ETHICAL AND LEGAL COMPLIANCE

2.1 What legal issues are related to your data management? (For example, GDPR and other legislation affecting data processing)

2.2 How will you manage the rights of the data you use, produce and share?

2. ETHICAL AND LEGAL COMPLIANCE



- **2.1 What legal issues are related to your data management? (For example, GDPR and other legislation affecting data processing.)**
 - You understand **what is personal data** and **recognize when you are processing personal data**
 - Identify the roles
 - Who is/are the data [controller\(s\)](#), or is there a joint controllership?
 - UH is usually the data controller
 - Who is/are the processors? Or is the processing of personal data outsourced to third parties?
 - Identify
 - the [legal basis \(usually "research carried out in public interests"\)](#)
 - rights to process the data
 - secondary use of the data?
 - need for the Data Protection Impact Assessment (DPIA)?
 - Ethical review?
 - secure storing place (related to the point 4 Storage and backup)

2. ETHICAL AND LEGAL COMPLIANCE

2.1 What legal issues are related to your data management? (For example, GDPR and other legislation affecting data processing)

- Describe
 - [the ways to protect the data](#) and planned safeguards (pseudonymization, anonymization etc.)
 - [how to take into account the data subject rights \(especially informing\)](#)
- Mention [how data protection will be taken into account when opening and sharing of the data](#)
 - Will data be archived for future use? Any ideas for a location?



2. ETHICAL AND LEGAL COMPLIANCE

- *2.2 How will you manage the rights of the data you use, produce and share?*



Data rights and agreements

- Identify and explain
 - Who the owner(s) or rights holder(s) of the data are,
 - The licenses or other terms and conditions, e.g., for re-use of data
 - If applicable, explain how intellectual property rights (IPR = copyright, patents, etc.) will be managed and what agreements are required, e.g., for transfer of rights.
- For projects with multiple partners and data owners, explain their roles and responsibilities regarding data.

2. ETHICAL AND LEGAL COMPLIANCE

2.2 How will you manage the rights of the data you use, produce and share?

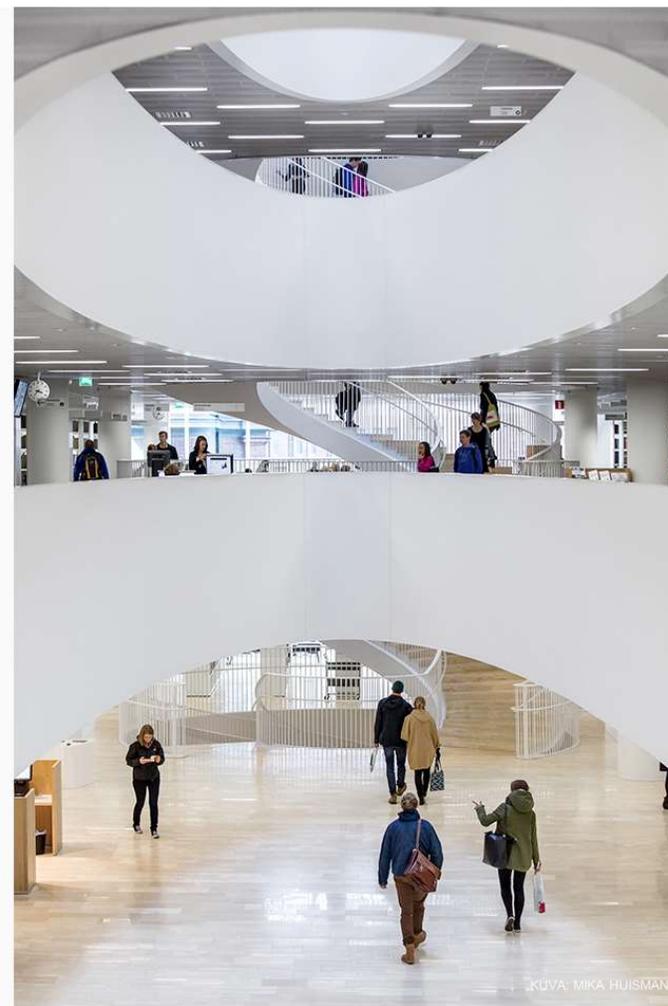
Data protection

- Explain, how the lawful processing of personal data will be ensured
 - during the project and the possible re-use of the data
 - how confidentiality and non-disclosure of data will be ensured
- Mention how the project complies with the funder's data sharing policy - and if not, explain why this is not possible.



TRANSFER OF RIGHTS

- As part of the agreement with Academy of Finland you will confirm that the transfer of rights to the university has been made.
 - Since 1.1.2022 new employees have signed this as part of their employment contract
 - If you want to sign this only for this project, the template is available on Flamma
 - If you want to sign this for all your UH projects, contact the HR of your faculty
- More information about the process on Flamma:
- **Research agreement and legal matters:** <https://flamma.helsinki.fi/en/group/tutkimuksen-tuki/tutkimussopimus-ja-lakiasiat>
- **Instructions on concluding an agreement:** <https://flamma.helsinki.fi/en/group/tutkimuksen-tuki/sopimukset-sopimusohje-ja-neuvottelut>



DATA PROTECTION GUIDE FOR RESEARCHERS ON FLAMMA

The screenshot shows the FLAMMA website interface. At the top, there is a search bar with the text 'Search on Flamma' and a magnifying glass icon. To the right of the search bar are icons for 'SEARCH CONTACTS', 'WORKGROUPS', 'TOOLS', and 'FAVOURITES'. Below the search bar is a navigation menu with a home icon, 'SERVICES AND INSTRUCTIONS', 'UNIVERSITY', 'NEWS AND EVENTS', 'MY UNIT', and user roles: 'Employee', 'Supervisor', and 'Teacher'. The main content area features a breadcrumb trail: 'SUPPORT FOR RESEARCH AND INNOVATIONS / RESEARCH AGREEMENT AND LEGAL MATTERS / DATA PROTECTION GUIDE FOR RESEARCHERS'. The title of the page is 'Data protection guide for researchers'. A pink callout box contains the text: 'Legal counsels at Research Services assist UH employees in data protection issues related to research. Please explore the material and links below for answers to general questions about data protection before contacting the legal counsels at researchlawyers@helsinki.fi'. Below this, it says 'On issues or questions about the management of your research data, you can get assistance from:' followed by two buttons: 'DATA SUPPORT' and 'HELPDESK'. The main text under the heading 'Data protection guidance for researchers' states: 'The purpose of this site is to provide the University's researchers with information on how the requirements of the [EU's General Data Protection Regulation](#) and other general data protection legislation must be taken into account when processing personal data in research. Researchers must also take into account any field-specific requirements (e.g., legislation on medical research) as well as principles and guidelines concerning research ethics.' On the right side, there are three sections: 'Data Protection Principles' with a link to 'Data Protection Principles of the University of Helsinki', 'Forms' with a link to 'Does my research need a data protection impact assessment?' and another link to 'Data Protection Impact Assessment', and 'Privacy Notices' with links to 'Privacy Notice for Research (fin)' and 'Privacy Notice for Research (eng)'. A sidebar on the left contains a menu with 'RESEARCH AGREEMENT AND LEGAL MATTERS' and 'Data protection guide for researchers' (which is expanded to show 'Instructions on concluding an agreement' and 'Material and data specific guidance').



STORAGE OPTIONS

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CHECKLIST FOR YOUR DATA

- How much storage space is needed (is the "scale" GB, TB or PB)?
- What type of data is stored and is it sensitive?
- How long the data needs to be stored?
- What software is needed to process the data?
- Who needs access to the data and is sharing it outside UH necessary?
- What is the available budget?
- Consider the whole lifecycle of the data, including long term plans



STANDARD STORAGE OPTIONS

Home and group folders

- For low and medium risk data
- Backup and version control
- Access control
- In UH premises

Umpio

- For high risk data

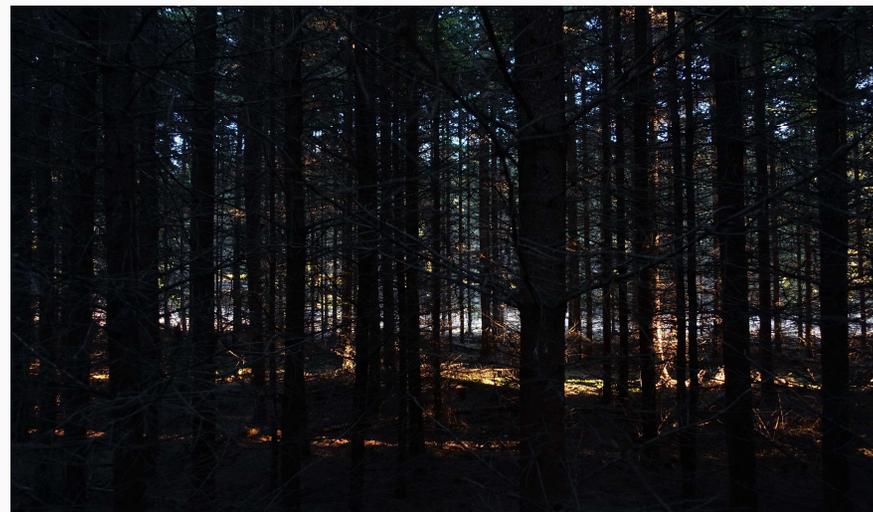
Office 365 (Onedrive, Teams)

- For collaboration

Redcap

- Survey tool (also for sensitive data)

Data storage and sharing table [link](#)



UH Servers & Computing services

- Virtual and physical servers
- UH high performance computing

CSC services

- IDA
- Servers & HPC
- SD Connect & Desktop (sensitive data)



OPENING, PUBLISHING, ARCHIVING

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5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT

5.1 *What part of the data can be made openly available or published? **Where** and **when** will the data, or its metadata, be made available? (1/2)*

- Describe **how the data, metadata, or software will be opened after the project**
- Define the **name of the platform** (repository, data catalogue, data journal).
- Explain **why a chosen solution** is ideal for you
- Collection of repositories: <https://fairsharing.org/databases/> and <https://www.re3data.org/>



5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT



5.1 What part of the data can be made openly available or published? Where and when will the data, or its metadata, be made available? (1/2)

- Ensure that data will get a **persistent identifier** (DOI, URN, Handle...)
- Explain, if applicable, why data opening is not possible or it is limited and who can access the data under which conditions (for example, only members of certain communities or via a sharing agreement).
- Note that sensitive data cannot be opened!
- You should open the findability metadata without making the data itself openly available

5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT

5.1 *What part of the data can be made openly available or published? Where and when will the data, or its metadata, be made available? (2/2)*

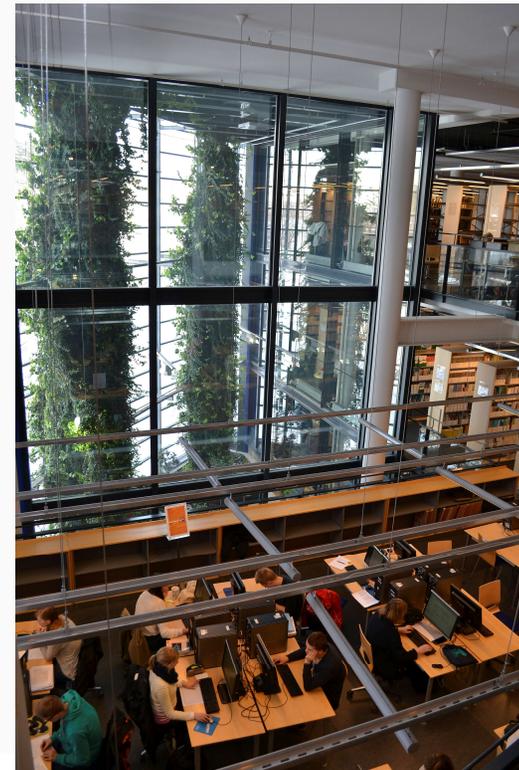


- Explain, where possible, **what actions will be taken to overcome or to minimise data sharing restrictions.**
- Indicate **which specific tools or software potential users may need** to access, interpret, and re-use the data (for example specific scripts, codes, or algorithms developed during the project, version of the software).

5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT

5.2 *Where will data with long-term value be archived, and for how long?*

- Categorize datasets that need different **length of preservation**:
 - A) data to be destroyed after the project. Describes how the data will be disposed after preservation period.
 - B) data to be archived for a verification period, e.g. 5-15 years.
 - C) data to be archived for potential re-use, e.g. for 25 years;
 - D) data to be preserved and curated for tens or hundreds of years



5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT

5.2 *Where will data with long-term value be archived, and for how long?*

- Describe how **management, preservation and admission to the datasets will be secured** when needed because of verification, agreements or other reasons.
- Provide the **name of the archive or trustworthy repository** – or the way to curate and preserve data – that will be used to make data available for re-use.
- Acknowledge the impact of legal, ownership, agreements, funders', institutions', and publishers' demands on data preservation.



Short Zoom meetings available after the training

- Discuss about your data management plan with a data management expert
- 30 min time slots
- Pick the time for the meeting from the table:
https://bit.ly/DMP_meetings_2023
Password: DMP2023
- Send the draft of your DMP and project abstract to datasupport@helsinki.fi a day before (tell in the message you have booked a meeting)



TURN TO UH DATA SUPPORT!

IMPROVE YOUR

DMP

BY SENDING IT TO
DATASUPPORT@HELSINKI.FI



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