****

Leiden University Data Management Plan, v 4.0

*The Research Data Management Regulations Leiden University require researchers to write a data management plan at the start of a long-term research project. Please check for the latest versions of the regulations and the template on the* [*website*](https://www.library.universiteitleiden.nl/about-us/centre-for-digital-scholarship) *of the CDS.*

|  |  |  |
| --- | --- | --- |
|  | **0. Administrative details** | |
| 0.1 | Contact details | *Name, email address and phone number* |
| 0.2 | ORCID | *Add link to ORCID info* |
| 0.3 | Name of project to which this data management plan applies | *Name your project, group and supervisors* |
| 0.4 | Description of the research | *Briefly describe your research to help others understand the purposes for which the data are being collected or created. Max. 50 words.* |
| 0.5 | Project duration | Start: *DD-MM-YYYY*  End: *DD-MM-YYYY* |
| 0.6 | Names of people and their responsibilities for data management | *List name, position, affiliation and ORCID (if known) plus the responsibility for data associated with this project, for example, collecting data, describing data, giving permissions for sharing and archiving the data.*  *Naming anyone with specific roles and responsibilities for data management is especially important for collaborative projects that involve many researchers and/or partner organisations.* |
| 0.7 | Funding body(ies) | *If applicable. This is important because specific requirements may apply* |
| 0.8 | Grant number | *If applicable. A grant number provides unique identification for the grant.* |
| 0.9 | Partner organisations | *If applicable. These may be research partners that use your data, or that you use data from.* |
| 0.10 | Relevant agreements or protocols | *Mention any consortium agreement, institutional data protocol or data management plan at group level, etc. that complements this plan.* |
| 0.11 | Ethical review | *If applicable mention the registration number of your protocol and the name of the Ethical Committee.* |
| 0.12 | Personal data | I do not collect personal data.  I collect personal data and I will contact the privacy officer.  I collect personal data and I have filled out a Data Processing Register for Research. |
| 0.13 | Name of data management support staff consulted during the preparation of this plan | *Mention name of individual and / or organisational unit* |
| 0.14 | Date of consultation with support staff | *DD-MM-YYYY* |

About this Data Management Plan

|  |  |
| --- | --- |
| Date of creation | *DD-MM-YYYY* |
| Updated on (date of last update): | *DD-MM-YYYY*  *A new version of the DMP should be created whenever important changes to the project occur due to inclusion of new data sets, changes in consortium policies or external factors*. |
| Changes in this version | *Indicate here what changes have been made to this plan since the last version was recorded, and explain why these changes have been made.* |

|  |  |
| --- | --- |
| **1. Data collection**  Describing the data you will be creating/collecting | |
| 1.1 | **Will the project use existing or third party data ?**  No  Own / group previous research  Academic collaborators  Commercial collaborators  Publicly available database / archive  Specialist commercial data provider  Other (please specify)  *If you will use existing or third party data describe briefly origin and type of existing data.* |
| …… |
| 1.2 | **Is there an agreement for the use of existing data?**  ☐ No  ☐ Yes, I have a data transfer agreement (DTA)  ☐ Yes, this is written down in a consortium agreement  ☐ Yes, this is written down in a research agreement  ☐ Yes, other (please specify)  *Indicate if there any restrictions or requirements for use of this data, such as licensing conditions, informed consents, credits for data providers, permission to merge datasets?* |
| *…………* |
| 1.3 | **How will you collect and/or create your data?**  *Describe the research methodology.* |
| *…………* |
| 1.4 | **What type(s) of data will you collect and create, and in what file format(s)?**  *Consider also the data created by the processing of the raw data. See guidance for types of data and sustainable formats.* |
| *…………* |
| 1.5 | **What tools, instruments, equipment, hardware or software will you use to capture, produce, collect, create and process the data?**  *Please give the names of the tools and state if they are already available. If not, state how you intend to acquire them. If applicable, describe whether you use a paper or electronic labjournal.* |
| *…………* |
| 1.6 | **What is the estimated size of the data?**  *Make an estimation (adopt stages if applicable).* |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Data stage | Specification of type of research data | Software choice and file format | Maximum data size during project | Final data size when project is finished | | *Raw data* |  |  |  |  | | *Processed data* |  |  |  |  | | *Published data* |  |  |  |  | | *Other…* |  |  |  |  |   *Explain estimations, if necessary.* |
| *…………* |

|  |  |
| --- | --- |
| **2. Data storage and security**  Ensuring that all research data are stored securely and backed up or copied regularly during your research | |
| 2.1 | **Are there any commercialisation, ethical or confidentiality restrictions about handling your data during your research?**  ☐ No  ☐ Yes  *Please describe restrictions (e.g. contractual obligations, copyright, intellectual property, patentability, protection of personal data (privacy law), ethical restrictions, informed consent, institutional policies)* |
| **…….** |
| 2.2 | **What are the main risks to data security?** |
| Accidental deletion or file corruption  Theft of, or damage to, equipment  Overwriting or version loss  Data leak, unauthorized access, or unauthorized use  Other (explain): …  *Please describe what would happen if the data get lost or become unusable.* |
| **…….** |
| 2.3 | **What measures will you take to comply with the security requirements and to mitigate the risks described above?**  *Describe how you can restore your data in the event of data loss and who is responsible.*  *If applicable, please describe procedures to ensure personal data are handled confidentially and who is responsible.* |
| Access restrictions (physical or digital)  Encryption  Reduce data sensitivity  Regular and timely back-ups  Master (locked) copy stored on university network storage  Master (locked) copy stored elsewhere  Data handling procedures and/or training for data handlers  Other, namely: …  *Please explain.* |
| *……* |
| 2.4 | **Where will you store your data during your research?** *Multipe answers possible.* |
|  | On university departmental network storage / workgroups (J:)  On university personal network storage (P:)  In a Virtual Research Environment (Sharepoint)  Physical storage (e.g. USB, external hard drive)  Cloud service (e.g. SURFdrive)  Institutional service (e.g. Dataverse), namely:  Other, namely: … |
| .... |
| 2.5 | **How will your data be backed up?**  *Please specify briefly for each storage device frequency, location of backups and who is responsible.* |
| I store my data on the university network storage which is backed-up by the ISSC.  I have my own provision which I describe below. |
| … |
| 2.6 | **Are there any non-digital data or outputs that the project will generate? Where will these outputs be stored?**  *Do you have a protocol for the storage and deletion of non-digital data? Please specify briefly and describe who is responsible for storage of these outputs.* |
| *…………* |

|  |  |
| --- | --- |
| **3. Data documentation**  Documenting your data to help future users to understand and reuse it | |
| 3.1 | **Do you use a system or convention for file naming and folder structures?**  *Please describe briefly.* |
| Yes, I use a (discipline specific) standard, namely: …  Yes, I use the standard of my department.  No, I use my own method which I will describe below. |
| ***.....*** |
| 3.2 | **How do you handle version control to maintain all changes that are made to the data?**  *Please explain your choice briefly. Remember to also document any deletion of data, if applicable.* |
| I lock raw data  No version control (e.g. original files are overwritten)  Version control software, namely: …  Data/version number in filename/folder  ‘Track changes’ feature in software  By saving the script with which I process my data  Other, namely: … |
| *…………* |
| 3.3 | **What standard will you use to describe your data?**  *Please refer to any metadata standards in your field if they exist.* |
| I have a discipline specific metadata standard, namely:…  Archival metadata standard (e.g. Dublin Core), namely:…  Other metadata standard, namely: …  I have my own documentation which I will describe below. |
| *…………* |
| 3.4 | **Where will metadata be registered?** |
| In a separate README file  Within the data file(s)  As a separate formatted file  In the data storage interface / platform  Other, namely…..: |
| ……. |
| 3.5 | **What supporting information / documentation will be needed to understand and reuse the data**  *Please describe briefly how peers should be able to understand the data. Examples are lab journals, a codebook, survey questions, software documentation, readme.txt etc. Some institutes have mandatory publication packages.* |
| *…………* |

|  |  |
| --- | --- |
| **4. Data access and sharing**  Managing access and security, sharing your data | |
| 4.1 | **During your project, before publishing your results, with whom will you share your data (multiple answers possible).** *In most cases you will share raw or processed data with at least one person.* |
| My supervisor  My immediate collaborators  My consortium partners  Researchers in my field  Anyone interested |
| **…….** |
| 4.2 | **Are any restrictions placed on sharing some / all of your data?**  *Please account for not sharing (parts of) your data.* |
| I can not share (parts of) my data due to:  Protection of personal data  Intellectual property  Copyright  Commercial reasons  Security-related issues  Ethical issues  Other (explain): |
| **…….** |
| 4.3 | **Do your participant consent forms include information about sharing, retention and deletion of data?** |
| Not applicable.  Yes. *Please specify the relevant formula in the consent form.* |
| **…….** |
| 4.4 | **What conditions do you set when you share your data?**  *Describe the criteria that you apply to give access to your data, such as use limited to specific purposes, security measures, deletion after use, credits etc. Have these conditions been defined in a consortium or data sharing agreement (or equivalent)?* |
| **…….** |
| 4.5 | **Who has authority to grant access to your data?**  *Please describe briefly.* |
| You  A colleague from the project, namely: …  Supervisor  Data Access Committee  Funder  Collaborator / research partner organisation  Other, namely: … |
| **…….** |
| 4.6 | **How will potential users discover your data?**  *Interested users might find out about your data on your projectwebsite, via papers on conferences, data catalogue, University website, Dataverse, data repository etc.. Think of the different audiences.* |
| **…….** |

|  |  |
| --- | --- |
| **5. Data preservation and publication**  Preserving your data and making it FAIR | |
| 5.1 | **Are there any requirements on making (part of) your data public after your project?**  *If your funder or publisher requires you to make your data FAIR (Findable, Accessible, Interoperable, Reusable) and / or open, please provide link to relevant policies or guidelines. Will your data be available freely or upon request? Mention embargo period if applicable.* |
| I will share (all or parts of) my data open access (without any access restrictions)  I will share my data upon request for the reasons I explain:  I will share (all or parts of) my data open access after an embargo period of …. *(specify and explain)*  I can not share the following data for the reasons I explain: |
| **…………** |
| 5.2 | **Which criteria do you use to decide which data has to be archived for the long term?**  *Please briefly describe your choices.* |
| Type of data (raw, processed) and how easy it is to reproduce it  Relevance of content for others  Usability of format for others  Data underlying publications  Verification of research  Costs  Other, namely: … |
| *…………* |
| 5.3 | **How long should your data be preserved?**  *According to the University regulations on data management you must make your data findable, accessible and reusable for at least 10 years after the closure of a project . State any other obligations set by law, funder, etc. if any.* |
| *…………* |
| 5.4 | **Are there any requirements regarding the destruction of data (digital and non-digital)?** |
| **………..** |
| 5.5 | **Which of the following will you use for long-term findability and availability of your data ?** |
| I will deposit data in a trusted data repository (e.g. DANS Easy, 4TU.ResearchData) as indicated below:  I will deposit data in a discipline-specific data repository as indicated below:  I will use an archive specifically for my collaboration, namely:  I will not use a data repository and will explain below how I will make my data findable and accessible for the long term.  I will not make my data findable and accessible and I will explain why. |
| *…………* |
| 5.6 | **If archiving in a data archive or repository, does it provide a Persistent Identifier (PID)?**  *Please add additional information if needed and the PID when available.*  ☐ Yes, a DOI  ☐ Yes, a different PID  ☐ No |
| …… |
| 5.7 | **What will you do to prepare your data for archiving? Will there be extra costs for this preparation?**  *Describe how you intend to meet publisher or database / archive / repository requirements, e.g. converting the file formats, providing supplementary documentation. Mention (expected) costs in section 6.* |
| *…………* |
| 5.8 | **Describe your strategy for publishing software that will be generated in this project.**  *Indicate whether potential users need specific tools or software (e.g. specific scripts, codes or algorithms developed during the project) to access, interpret and (re-)use the data.* |
| **…….** |
| 5.9 | **What license will you apply to your data?**  *Specify***.** |
| I will use the default license of the repository, namely:  I will use a creative common license, namely:  I will use an open source licence, namely:  Other |
| **……….** |
| 5.10 | **Who is responsible for the data after the project ends?**  *Please state a position and the current person in that position.* |
| **…….** |

|  |  |
| --- | --- |
| **6. Costs**  Estimate costs for data management during and after the project | |
| 6.1 | Estimation and coverage of costs for data management   |  |  |  |  | | --- | --- | --- | --- | |  | Costs (in Euros) | Covered in the project budget yes / no | If not in budget, covered by … | | Storage costs during the project |  |  |  | | Archive costs after the project |  |  |  | | Other costs (personnel for curation or datastewardship, etc., see guidance) |  |  |  |   *Specify other costs* |
| …… |

|  |  |
| --- | --- |
| **7. Additional information** | |
| 7.1 | **Here you can put any additional information that you were not able to list in the boxes above.** |
| …… |