



DATA MANAGEMENT PLAN

The DMP is a document that provides details regarding all the research data collected and generated within the PhD project. In particular, it explains the way research data are handled, organized, licensed and made openly available to the public, and how they will be preserved after the project is completed. The DMP also provides motivations when versions or parts of the project research data cannot be openly shared on account of third-party copyright issues, confidentiality or personal data protection requirements or when open dissemination could jeopardize the project achievements.

Commentato [RDM1]: Here you can find suggestions for your DMP. Please feel free to modify this template according to your research project's specific needs

Project Title	
Acronym	
PhD student (name and ORCID)	
Tutor (name and ORCID)	
PhD School	
Date of Issue	
File name	
Storage location	

Commentato [RDM2]: This will correspond to the date we jointly approve and close the first version of the DMP

Commentato [RDM3]: The version number of the file must be included

Commentato [RDM4]: Please provide a link in a cloud to be shared with the Project coordinators (use dmp.phd@unimi.it) We suggest to use unimibox.

Revision n.	
Date of Revision	
Modified points	
Reason for modifications	
File name	
Storage location	

Commentato [RDM5]: This entire section remains empty for the first version of your DMP.

This document is based on the DMP Horizon 2020 template. Before using this template, make sure to check if your funder requires the use of a specific template.



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Commentato [RDM6]: In the annexes, for instance, you can add protocols, readme file template, informed consent, specific agreements, etc. Erase it from the table of contents if it isn't necessary.



1. **PROJECT ABSTRACT**

Commentato [RDM7]: Does not correspond to the abstract of the research project.

Provide a brief description of the rationale for the research project and its objectives. Then focus in describing the type of data that will be used, collected, and created. This is basically summarizing in descriptive form what is contained in the DMP. We suggest that you fill in this part at last, after having compiled all the other sections of the DMP. If you are working in a team and there are other researchers who are producing/collecting/elaborating your data together with you, here you can also add table with names, ORCIDs, affiliations, and role related to data (e.g. data collector, supervisor, contributor, external partner)



2. TYPE OF DATA

2.1. Data generation during the project

Table 1 – Summary of data generated during the project

Number and Title of Dataset	Type of Data	Formats	Size	Generated by
1				
2				
3				
...				

2.2 Existing data used in the project

Table 2 – Summary of existing data

Type of Data	Formats	Size	Owner	Free to use/ Third Party rights

3. FAIR DATA

This part has to be completed for each of the datasets indicated in table 1.

3.1 Make your data Findable and Interoperable

The following common rules for data set naming are indicating in order to improve data visibility, discoverability, citation and permanent online tracking. Moreover, to allow data exchange and re-use among researchers, all shareable data will made available in well-known and documented open formats, as much as possible compliant with available (open) software applications.

DATASET 1

- a) Brief description of the dataset
- b) Metadata provision / Reference Standard (if any)
- c) Naming conventions used (provide 1 example)
- d) Raw data will be re-elaborated? If yes describe why and how
- e) Raw data storage location
- f) Specify tools, hardware and software needed to access the data

Commentato [RDM9]: At time zero, this data will likely not be available. It is a matter of making estimates. In later versions, the figure will be consolidated. If estimates cannot be made, then enter "not yet available".

Commentato [RDM8]: They must match the data sets described in Section 3.

Commentato [RDM10]: Think carefully about this part. Existing data could be:
- Data from your research group;
- Data from a project partner;
- Public data
- Data you requested from third parties.
If no existing data will be used, explain why (a reason could be that data request a too onerous cleaning process) and delete the table part. You can always reinsert it, if needed, in a later version of the DMP.

Commentato [RDM11]: Here you are required to explain in what ways the data that you will work with is coherent with the FAIR principles. Hence, you must ensure that, FOR EACH DATASET in your project, you give accurate information on the aspects a/b/c/d/e/f listed below. Therefore, copy and paste the sections a-f for each dataset that you have, and make sure that EACH PART (a,b,c,d,e, f) is a subtitle.

Commentato [RDM12]: Closely related to the type of data and the conventions used: you don't have to invent any metadata standard to be used, but it will be the one adopted by the repository on which you are going to share your datasets. A reference can be the DUBLIN CORE METADATA STANDARD (i.e. the one adopted by UNIMI Dataverse) >>>
https://www.dublincore.org/specifications/dublin-core/dcmi-terms/

Commentato [RDM13]: Indicate how you will entitle and number your samples, and give an example to make immediately visible to others how to recognize them. Importantly, follow some standards to do it >>> see https://ukdataservice.ac.uk/learning-hub/research-data-management/format-your-data/organising/ and also https://libraries.mit.edu/data-management/store/organize/

Commentato [RDM14]: It may happen that some measurements are to be made (raw data) that are then used to create the final data, through its processing (e.g. the average of the raw data collected; the set of different data recording the same phenomenon; recordings of interviews, etc.). So think about what you will do with the data once it has been ...

Commentato [RDM15]: Very often data are collected through measurements by instruments, perhaps in open fields, away from the PC. They are often scored in the instrument's local computer, or in the lab notebook, etc. In this part you need to indicate where the data is located at the time it is read/collected. ...

Commentato [RDM16]: What does it take to read your data? What software? Are they readable by everyone or do you need a license or a special instrument?



3.2 Access conditions

As a guiding principle, the Project seeks to make research data openly available, whenever possible, in order to allow dissemination, validation and re-use of research results.

When restrictions to access need to be applied, they will be motivated and it will be indicated how and who can grant access rights.

This part will also support fields related to Data sharing and Reuse.

Table 3 – Summary of access to dataset

Dataset	Accessible from	How	Restrictions: Yes/No*
1			
2			
3			
...			

* If yes, please complete, for each pertinent dataset, the following parts.

- a) Reason for the restrictions
- b) Who could ask/have access to the dataset?
- c) Who may grant access right to the dataset?
- d) How will access rights be granted?

4. DATA QUALITY AND SAFETY STRATEGIES

4.1 Data quality

Describe criteria adopted to guarantee data quality.

4.2 Data security

Describe the strategy adopted to address (also in long terms) data recovery, backups, data transfer and storage of sensitive data. If your research data may be subjected to dual use application (see Regulation (EU) 2021/821), please declare it specifying which dataset might be involved. Further institutional guidelines on mitigation practices will be delivered soon.

Then fill the following table.

Table 4 – Terms of storage

Dataset	Short term storage	Repository for long term storage
1		
2		

Commentato [RDM19]: In the period during which the data will not be publicly accessible, if necessary, you will need to determine whether it will be possible to give controlled access to it and to whom. In the table put only Yes or Not. If you insert no, you have to answer the questions below, for each dataset.

Commentato [LG18]: i.e. how will you make the dataset/s accessible? You must insert the name of the repository which you have chosen for your research data

Commentato [RDM17]: Any data will, sooner or later, become public. Try to estimate when your data will be publicly accessible.

Commentato [RDM20]: This might be, for example, only the PI of the project, or the person responsible for FAIR RDM. If you work in a team, make sure that responsibilities are clearly defined.

Commentato [RDM21]: Some repositories allow researchers to draw up a data request form. Another way of granting access to data may be asking researchers to leave their names and e-mail address.

Commentato [RDM22]: You must describe how you will ensure that your data are reliable and reproducible. Any steps you will take to do this must be described. (For example, how many repetitions you will do; whether you will normalize your data; if so by what standard; whether you will make comparisons; etc.).

Commentato [RDM23]: In this part, you must explain how you will take care to store your data securely (with respect to unforeseen risks of data loss).



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3		
...		



5. ETHICAL ASPECTS

Dataset	Sensitive/Personal data (Y/N)	Confidential data (either proprietary or from third party) (Y/N)	Data generate by clinical trial or use of human biomaterial (Y/N)	Data generate by use of live animals or animal biomaterial (Y/N)
1				
2				
3				
...				

Commentato [RDM24]: Fill in this part only if it is relevant to your project, otherwise leave the paragraph title, indicate that your data do not have any ethical or legal issues and delete the table part.

For each of the following aspects, when relevant for the Project, describe if and how all regulatory aspects related to legal and ethical issues will be or have been complied.

Commentato [RDM25]: This includes mentioning, where relevant, national and international laws, such as the GDPR regulation, the approval of the ethical committee/s, specifying that you will be providing consent forms where necessary, etc. You can also decide to attach the relative documentation.