EUR Data Management Plan template

Programme Research Services, June, 2018 (update November, 2018)

This template is intended for creating the Data Management Plan for your research.
For further support, please contact the Erasmus Data Service Centre at edsc@eur.nl or 010-408 1232.

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Data management plan

Alongside your ethics application, you need to indicate how you will manage the data produced in your research. Please indicate your answers to the questions below:

We are working on a list of frequently asked questions (FAQ). The FAQ abbreviation is added below to questions for which more background information (i.e., policy requirements) is (becoming) available. (Underlined FAQ means you can consult the FAQ on the website; FAQ in yellow means information needs to be added).

Please be aware that you can contact the EUR Data team (https://www.eur.nl/ub/en/edsc/) to help you draw your DMP.

In orange are questions that are also part of the Data Management Plan of European Research Council (ERC) projects.

General questions

Date:

Version of data management plan:

Project title:

Researchers(s) involved:

Researchers	Position (PhD[1], Assistant prof., Associate prof., Prof.)	Affiliation (in case of a partner university)

Department where the research will be conducted:

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[1] In the case of research by a doctoral researcher, please also include the supervisors.

A. Description of data set and data collection methods

1. Period of data collection (estimated start and end date):

Personal data

2. Will *personal* data be collected or (re-)used[2]?

Definition personal data[3]: Any information relating to an identified or identifiable natural person: a name, an identification number, location data, an online identifier, one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

☐ Yes
☐ No

3. Will special categories of personal data (*Sensitive Data[4]*) be collected or (re-)used-[5]?

Definition sensitive data: Data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.

☐ Yes
☐ No

If answers to Q2 and 3 are both no, please go to Q8.

Privacy Impact Assessment for Academic research

4. (FAQ) Please provide an overview of personal data that you will collect and a clear justification:

	Justification for collecting these data	
Personal and/or special categories of personal data	Legitimate interest[6] e.g. learning analytics	Public interest e.g. scientific-, historical-, or statistical purpose

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[2] Re-use: Use of existing data for a different research purpose, e.g. a different research question, cohort studies; longitudinal; population studies
[3] General Data Protection Regulation (GDPR), art. 4
[4] General Data Protection Regulation (GDPR), art. 9
[5] Re-use: Use of existing data for a different research purpose e.g. a different research question, cohort studies; longitudinal; population studies
[6] A legitimate interest mostly refers to the need of data collection for good governance of an organisation.

	4	

5. Do you *only* collect data that contributes to answering your research question[7]?

    ☐ Yes
    ☐ No, please explain below

6. ([FAQ](#)) Will identifying data be de-identified (e.g. by pseudonimising or by using broad categories instead of absolute values) before they are analysed?

    ☒ Yes, please explain below
    ☐ No, please explain below

7. Do the following criteria apply?[8]

	yes	no
Use of sensitive data or data of a highly personal nature		
(FAQ) Data is processed on a large scale		
Innovative use or applying new technological or organisational solutions		

In case one of the questions is answered with 'Yes', please share your data management plan with the EUR privacy desk (privacy@eur.nl). People from the EUR privacy desk will assess whether it concerns high risk research, and if so, will help with proposing measures to mitigate the risk.

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[7] Data minimisation principle
[8] Note for reviewers: this part of the DMP will be addressed in a training for reviewers

Method of data collection

8. (FAQ) What data will be generated by your research?

☐ Survey data → go to 11
☐ Existing or publicly available data → go to 9
☐ Qualitative data → go to 10
☐ Experimental data → go to 11
☐ Other, please explain in the box below → go to 11

9. Existing or publicly available data: how can your data be characterized?

As:
☐ Free public data → go to 11
☐ Public data not available in researcher-friendly database → go to 11
☐ Commercially available data→ go to 11
☐ Firm property data → go to 11

10. Qualitative data: how can your data be characterized?

As:
☐ Case studies → go to 11
☐ Documents → go to 11
☐ Interviews → go to 11
☐ Ethnographic participant observations → go to 11

11. (FAQ) Please fill out the schedule below in accordance with the FAQ[9]:

Dataset reference	Dataset name	Origin *Please repeat choices made under Q 8-10*	Data type *Choose between:* • *Structured (= database)* • *Unstructured (= individual documents)*	Data format *raw data* (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG) [10]	Data format *processed data* (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG) [11]

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[9] This corresponds to Requirement ERC DMP template: SUMMARY: (dataset reference and name; origin and expected size of the data generated/collected; data types and formats)
[10] Consult:
http://datasupport.researchdata.nl/fileadmin/user_upload/Preferred_formats4TU.CentreforResearchData.pdf
[11] Consult:
http://datasupport.researchdata.nl/fileadmin/user_upload/Preferred_formats4TU.CentreforResearchData.pdf

B. Verifiability and archiving of data

12. (FAQ) Is your research data suitable for re-use[12]?

☐ Yes (= preferred answer[13]) →
- Please explain below and
- Store *survey data* in accordance with Appendix 1 Survey data
- Store in *existing or publicly available data* accordance with Appendix 2 Existing or available data
- Store *qualitative data* in accordance with Appendix 3 Qualitative data
- Store *experimental data* in accordance with Appendix 4 Experimental data

Please be aware that you must arrange consent for secondary analysis beforehand or additionally.

☐ Partly or no. As far as possible, make research findings and research data public subsequent to completion of the research. →

- If this is not possible, establish valid reasons[14] for their non-disclosure[15] below and
- Please realise that for each project, at least the following elements must be archived for verification purposes[16]:

a) The research question or hypothesis.
b) The research method(s) chosen.
c) The data actually used to support the research conclusions and/or recommendations.
d) The list of known people for whom the data is accessible.
e) Documentation of the actions taken with the data and the software used.
f) If available: the raw dataset(s).

Please explain your choice for y/partly/n

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[12] Re-use: Use of existing data for a different research purpose, e.g. a different research question, cohort studies; longitudinal; population studies

[13] see Netherlands Code of Conduct for Research Integrity, paragraph 3.2.10

[14] Valid reasons, including confidentiality, can be found in: Council of the European Union, Outcome of Proceedings: The transition towards an Open Science system, paragraph 14 (Brussels, 27/05/2016, 9526/16, via: data.consilium.europa.eu/doc/document/ST-9526-2016-INIT/en/pdf).

[15] see Netherlands Code of Conduct for Research Integrity, paragraph 3.2.11

[16] → RDM baseline: https://www.eur.nl/en/research/research-matters/research-data-management/rdm-policy

13. Please confirm that you will act in accordance with the following text, or explain why you cannot do this:

For research that started before October 1, 2018:
To act in accordance with the Netherlands Code of Conduct for Scientific Practice: "Raw research data are stored for <u>at least ten years</u>. These data are made available to other scientific practitioners at request. Raw research data are archived in such a way that they can be consulted at a minimum expense of time and effort."

☐ Yes
☐ No, please explain below or refer to Q16 for an explanation on why certain data need to be destroyed immediately after use:

For research that started after October 1, 2018:

To act in accordance with the Netherlands Code of Conduct for Research Integrity: I "Manage the collected data carefully and store both the raw and processed versions for a period appropriate for the discipline and methodology at issue."

☐ Yes, please explain below the period that you perceive appropriate for the discipline and methodology at issue
☐ No, please explain below or refer to Q16 for an explanation on why certain data need to be destroyed immediately after use:

C. Data ownership and confidentiality

For any questions regarding IPR and ownership, please contact Melika Nariman, LL.M. (melika.nariman@eur.nl)

Ownership

Reason to arrange data ownership (during & after research) is the involvement of multiple parties in the research. This concerns:

- Principal investigator (always)
- Employer (always)
- If applicable, other researchers involved in the research
- External client / third party
- Owner of existing database

Elements that play a role in ownership of data are:

- Access rights
- Conditions of use and exploitation of the results (IP)
  - ➢ CONFIDENTIALITY
  - ➢ RIGHT OF USE (and re-use)
  - ➢ RIGHT OF EXPLOITATION
  - ➢ DISSEMINATION
- Management of the jointly owned results (IP)
- Allocation of the shares between owners (IP)

14. Who owns the IPR (including copyrights) on the data?

☐ Erasmus University Rotterdam
   The university has financed the research and the PI is employed by the university.
   If the research is being conducted by a BSc or MSc student, the student is registered with the Erasmus University Rotterdam and the research is being conducted as part of the study.

   Please note that when a researcher leaves the Erasmus University Rotterdam, a written agreement with the leaving researcher will be sought in order to define under which conditions he/she will be able to use the data outside of employment with the Erasmus University Rotterdam. The university will take into account whether the leaving researcher is participating in a bigger research project and whether the new employer can guarantee the safeguarding of the individual privacy rights under the applicable privacy laws.

☐ Third party
   The research is either funded by a third party who owns the IPR or (licensed) third party research data is being used. The IPR of the third party research data is owned by the third party.

☐ Researcher/PI
   The research funding has been formally granted to the researcher on a personal basis. For example: an ERC Starting Grant.

☐ Joint ownership

Before the start of the research project, the Erasmus University Rotterdam and the other party shall enter into a joint ownership agreement governing joint IPR. Such agreement shall include, but is not limited to: dissemination, terms of use by the parties, terms of licensing and exploitation.

Sometimes the joint ownership is covered by the applicable consortium agreement. Please contact your faculty's legal advisor for questions regarding the joint ownership.

15. Please confirm by checking the boxes that during research, you will work with one of the following available systems that support safe sharing and storage of data *during research*:

☐ *In case of sensitive data*, data will be stored securely in the *EUR Document Vault*; an end-to-date end-encrypted and ISO 27001 certified secure environment. This document vault makes use of BlackBerry Workspaces (see also: https://www.eur.nl/en/research/research-matters/research-data-management/share-data-safely) a system also used by the AIVD, the General Intelligence and Security Service of the Netherlands. In the EUR document vault, EUR researchers are able to work safely with (special categories of) personal data, in compliance with the GDPR. The Principal Investigator has access to a wide range of advanced file protection measures, logging and monitoring of use and controlled access in the EUR document vault. Please ask access at researchservices@eur.nl.

☐ Data will be stored on SURF Drive (the safe Dropbox). Data will be shared by using SURF filesender (the safe WeTransfer). Information is available on: https://www.eur.nl/en/research-matters/research-data-management/share-data-safely

☐ No, I will not use one of the options provided above. Please explain below.

16. (FAQ) Are any data collected that need to be destroyed after use?

☐ Yes, please explain below:
☐ No

17. (FAQ) Will you place an embargo on your research data before you publish them for others to see and use?

☐ Yes, please explain below:
☐ No

18. What measures are in place to store the data on the long term?

<div style="background-color:#fbe4d5; border:1px solid #000; padding:10px;">

Requirement ERC DMP template
(potential value of long-term data preservation; procedures for data backup and recovery; transfer of sensitive data and secure storage in repositories for long term preservation and curation)

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EUR proposes the following:

Long-time storage is provided by service provider DANS, the Dutch organisation for scientific data storage. The online archiving takes place via the EASY system (www.dans.knaw.nl/en/deposit) which has received the Data Seal of Approval (www.datasealofapproval.org/) (DSA) basic certification. Apart from facilitating scientific data storage in the Netherlands, DANS also has considerable expertise concerning data management and related ethical issues.

Will you act in accordance with the text above?

☐ Yes
☐ No, please explain below:

D. Findable, Accessible, Interoperable, Reusable (FAIR) requirements

Motto: As open as possible, as closed as required.

19. How will you make your data findable?

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Requirement ERC DMP template
(dataset description: metadata, persistent and unique identifiers e.g., DOI)

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The DANS Easy system, recommended under Q18, helps by asking you specific questions. The data stored for verification purposes (Q12) will help you with answering these questions.

Will you submit data to DANS to make them findable?

☐ Yes
☐ Yes, and I also select data that need to remain confidential.
☐ No, please explain, if possible including how you make your data findable in an alternative way:

20. (FAQ) How will you make your data openly accessible?

<div style="background-color:#f8d6c0;">

Requirement ERC DMP template
(which data will be made openly available and if some datasets remain closed, the reasons for not giving access; where the data and associated metadata, documentation and code are deposited (repository?); how the data can be accessed (are relevant software tools/methods provided?)

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Access is provided to (multiple answers are possible):

☐ Metadata
☐ Data files
☐ Version information
☐ The selected options above are indexed and searchable
☐ Metadata is always public, even if the data are restricted or removed for privacy issues or other legal restrictions.
☐ Access is provided through DANS, except for data that need to remain confidential
☐ Other, please explain below:

21. (FAQ) Will you make data interoperable?

Interoperable means that your data can be found and used by a search machine.

> *Requirement ERC DMP template*
> (which standard or field-specific data and metadata vocabularies and methods will be used)

☐ Yes (I would like to)
☐ No

If yes, which of the following options do apply? (multiple options possible)

☐ I will ask the EUR data team advice (http://www.eur.nl/ub/en/edsc/research_data)
☐ Assets can be accessed over the Web in a variety of formats appropriate for individuals and/or their computers (RDF, XML).
☐ Research assets are annotated with rich metadata, using community standards, formats and ontologies.
☐ The metadata is stored as RDF to enable interoperability.
☐ Other, please explain below:

22. Will you contribute to an increase of data sharing and re-use?

(Please note, this question relates to Q12 Reusability & Q14 Joint ownership agreement, in which access rights are arranged)

> *Requirement ERC DMP template*
> (what data will remain re-usable and for how long, is embargo foreseen; how the data is licensed; data quality assurance procedures)

☐ Yes (I would like to)
☐ No

If yes:

☐ I will ask the EUR data team advice (http://www.eur.nl/ub/en/edsc/research_data)
☐ Deposits include metadata, data files, and any complementary files (such as documentation or code) needed to understand the data and analysis.
☐ Assets can be downloaded for re-use.
☐ Other, please explain below:

E. Estimated costs

23. (FAQ) What are the estimated costs for making the project data open access?

Requirement ERC DMP template

Appendix 1 Survey data checklist

A. Project plan *The researcher has to provide convincing evidence to show that the content of the project plan has been agreed before the start of the data collection (step 1). The project plan also has to include agreements about the storage and accessibility of research data with co-authors working at other research institutions.*	Completed
Research questions	
Research design and survey questionnaire(s)	
Proposed respondents and sampling	
Owner of the data to be collected	
Use of the data to be collected by third parties	
B. Store original 'raw' research data *The researcher has to provide convincing evidence to show that the original 'raw' research data has not yet undergone any selection, cleaning, or processing.*	
If a paper questionnaire has been used, the completed questionnaires have to be scanned.	
C. Store documentation about the origin of 'raw' research data *Original data has to be linked to the identity of the source of the data (the information, respondent).*	
Identity of respondents of the original data. Anonymity always has to be guaranteed unless the individual respondent has given permission for their identity to be disclosed	
If an external panel of respondents is used, the external owner has to record the identity of the individual respondents.	
D. Store documentation data collection process *The process of data collection has to be clearly described and documented so the entire process can be fully traced.*	
Complete survey questionnaire	
Code book	
Field work report, including	
i. Date/period of data collection questionnaire	
ii. Population; sampling; sampling procedure	
iii. Response/non-response	
iv. Method of data collection	
v. Names and roles researchers:	
	Names
a) Design	
b) Programming	
c) Surveying	
vi. If relevant, name of external respondents and any surveyors/programmers	
E. Store documentation data processing and – analysis *All the steps that have to be carried to obtain the final data have to be documented in a digital format. Important steps in the analyses that are ultimately not reported in publications, but which are necessary for the analyses, also have to be documented in a digital format. The names and roles of the*	

researchers involved also have to be included.	
Name and version software programme	
Processing steps in syntax/log file	
Not compulsory but advisable: interim syntax/log files	
Processing steps in research logbook (which cannot be documented in syntax)	
	Names
Names and roles of researchers:	
a) Data entry	
b) Cleaning	
c) Processing	
d) Analysis	
F. Store the final processed research data: no specifics *The final processed data has to be saved in a digital format. Various file formats can be used (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG).*	
No particulars	

Appendix 2 Existing or publicly available data checklist

	Completed
A. Project plan *The researcher has to provide convincing evidence to show that the content of the project plan has been agreed before the start of the data collection (step 1). The project plan also has to include agreements about the storage and accessibility of research data with co-authors working at other research institutions.*	
Research questions	
Research design	
B. Store original 'raw' research data *The researcher has to provide convincing evidence to show that the original 'raw' research data has not yet undergone any selection, cleaning, or processing.*	
A digital copy should be saved of data obtained via the internet.	
A digital copy does not have to be made of public data (free public data) that can be easily and quickly found again (e.g., library, Statistics Netherlands (CBS)).	
C. Store documentation about the origin of 'raw' research data *Original data has to be linked to the identity of the source of the data (the information, respondent).*	
Free public data and public data not available in researcher-friendly database: the source of the original data has to be documented precisely. For example: name of organisation, specific website, journal, and any contact persons.	
Commercially available data and firm proprietary data: the data supplier has to be asked to document the origin of the original data. If the data is anonymised, the data supplier must be able to inform the researcher in writing that the original data can be linked to the identity of the source of the data.	
D. Store documentation data collection process *The process of data collection has to be clearly described and documented so the entire process can be fully traced.*	
Date/period of data collection	
Names of researchers	
Roles of researchers	
E. Store documentation data processing and – analysis *All the steps that have to be carried to obtain the final data have to be documented in a digital format. Important steps in the analyses that are ultimately not reported in publications, but which are necessary for the analyses, also have to be documented in a digital format. The names and roles of the researchers involved also have to be included.*	
Name and version software programme	
Processing steps in syntax/log file	
Not compulsory but advisable: interim syntax/log files	
Processing steps in research logbook (which can be documented in syntax)	
	Names
Names and roles of researchers:	
a) Data entry	
b) Cleaning	
c) Processing	

d) Analysis	
F. Store the final processed research data: no particulars *The final processed data has to be saved in a digital format. Various file formats can be used (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG).*	
No particulars	

Appendix 3 Qualitative data checklist

	Completed
A. Project plan *The researcher has to provide convincing evidence to show that the content of the project plan has been agreed before the start of the data collection (step 1). The project plan also has to include agreements about the storage and accessibility of research data with co-authors working at other research institutions.*	
Research questions	
Research design	
Proposed respondents/contact persons	
Owner of the data to be collected	
Use of the data to be collected by third parties	
B. Store original 'raw' research data *The researcher has to provide convincing evidence to show that the original 'raw' research data has not yet undergone any selection, cleaning, or processing.*	
The different sources of data should be saved in a digital format:	
Interviews: interview recordings, with a written transcript.	
Observation: field notes and audio visual resources.	
Documents: hard-copy documents should be scanned and saved in a digital format.	
Web sources: a digital copy must be saved (depending on the source, a hard copy should be made and then scanned, or a screenshot should be taken)	
C. Store documentation about the origin of 'raw' research data *Original data has to be linked to the identity of the source of the data (the information, respondent).*	
Interviews: The identity of respondents and the name of the organisation have to be documented, but the anonymity in transcripts and file names still has to be guaranteed. Anonymization is necessary if the raw data is shared. Anonymization is possible by making a separate list of the respondents and then pseudonimising their names. In this way the key is kept in a separate file that is segregated from the other data sets.	
Observation: location where the observations were made, and when, has to be documented, as well as the observational role played by the researcher during the observations (observer, participant, etc.).	
Documents and web sources: The original source, and how this source was found or obtained, has to be recorded.	
D. Store documentation data collection process *The process of data collection has to be clearly described and documented so the entire process can be fully traced.*	
Interviews: Give an overview of whether or not a member-check was carried out, and what the level of permission is in relation to the use of quotes and the naming of the organisation.	
E. Store documentation data processing and – analysis *All the steps that have to be carried to obtain the final data have to be documented in a digital format. Important steps in the analyses that are ultimately not reported in publications, but which are necessary for the analyses, also have to be documented in a digital format. The names and roles of the*	

researchers involved also have to be included.	
Interviews: All steps between data registration and analysis have to be documented: - overview of the selected quotes - 'cleaned quotes' - final coding sheets	
Observation: Final version of the observation report has to be saved	
Documents and web sources: Overview of the selected quotes has to be saved.	
General: Provisional versions of written analyses (e.g., brainstorming documents, memos, and where relevant draft versions of articles) have to be saved.	
F. Store the final processed research data: no specifics *The final processed data has to be saved in a digital format. Various file formats can be used (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG).*	
The final version of the written text has to be saved, in which the analysis is worked out in more detail and updated.	

Appendix 4 Experimental data checklist

A. Project plan *The researcher has to provide convincing evidence to show that the content of the project plan has been agreed before the start of the data collection (step 1). The project plan also has to include agreements about the storage and accessibility of research data with co-authors working at other research institutions.*	Completed
Research questions	
Research design and survey questionnaire(s)	
Maximum number of respondents to be included	
Owner of the data to be collected	
Use of the data to be collected by third parties	
B. Store original 'raw' research data *The researcher has to provide convincing evidence to show that the original 'raw' research data has not yet undergone any selection, cleaning, or processing.*	
If a paper questionnaire has been used, the completed questionnaires have to be scanned.	
C. Store documentation about the origin of 'raw' research data *Original data has to be linked to the identity of the source of the data (the information, respondent).*	
The identity of the respondents has to be documented. However, anonymity always has to be guaranteed unless the individual respondent has given permission for their identity to be disclosed.	
D. Store documentation data collection process *The process of data collection has to be clearly described and documented so the entire process can be fully traced.*	
Complete survey questionnaire	
Code book	
Field work report, including	
vi. Date/period of data collection questionnaire	
vii. Population; sampling; sampling procedure	
viii. Response/non-response	
ix. Method of data collection	
x. Names and roles researchers:	
	Names
d) Design	
e) Programming	
f) Surveying	
vi. If relevant, name of external respondents and any surveyors/programmers	
A description of the intervention also has to be added to the fieldwork report.	
E. Store documentation data processing and – analysis *All the steps that have to be carried to obtain the final data have to be documented in a digital format. Important steps in the analyses that are ultimately not reported in publications, but which are necessary for the analyses, also have to be documented in a digital format. The names and roles of the researchers involved also have to be included.*	

Name and version software programme	
Processing steps in syntax/log file	
Not compulsory but advisable: interim syntax/log files	
Processing steps in research logbook (which cannot be documented in syntax)	
	Names
Names and roles of researchers:	
a) Data entry	
b) Cleaning	
c) Processing	
d) Analysis	
F. Store the final processed research data: no specifics *The final processed data has to be saved in a digital format. Various file formats can be used (e.g., txt, Excel, Word, PDF, SPSS, SAS, mp4, JPEG).*	
No particulars	