

DQ-mat DOCUMENT
Research Data Management Policy
for CRC 1227 DQ-mat



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1 Preamble

Collaboration in science relies on exchange - both internally and externally. This explicitly includes the exchange of research data. The Collaborative Research Center 1227 DQ-mat is recognizing the relevance of research data in the scientific knowledge process. Reliable and responsible handling of research data is indispensable for the traceability of research and the dissemination of scientific findings. The

- creation,
- processing,
- documentation,
- backup,
- storage and
- sustainable provision of research data

should be carried out in accordance with accepted discipline-specific standards and be guided by the FAIR Data Principles¹. Legal and ethical requirements must be strictly followed. The present policy and the principles formulated here refer in particular to the “Principles for Handling Research Data”² of the Alliance of German Science Organizations and the “Guideline for Handling Research Data”³ of the German Research Foundation (DFG).

The present guideline is mandatory to all active members participating in CRC 1227. Members who are employed at the participating institutions or institutes are encouraged to consider any guidelines and/or policies of the respective institution beyond this guideline.

Should it become evident in individual cases that the principles listed here are in conflict with institutionally defined principles, the principles of the institutes or institutions shall apply - unless they violate the interests of DQ-mat. Potential conflicts must be reported to the CRC management resolved by mutual agreement. The Executive Board acts as a mediation body.

2 Principles

The principles listed below govern the handling of research data and are an expression of the commitment of the members involved in CRC 1227. They must be followed at all times. The provision of Data Management Plans as well as the provision of the research data is mandatory to all projects and an indispensable output of the project.

1. All members of the CRC 1227 are encouraged to understand the work with data as teamwork and to place an appropriate level of importance on the usability and traceability by colleagues when storing and documenting data.

¹Findable, Accessible, Interoperable and Re-usable

²<http://doi.org/10.2312/ALLIANZOA.019>

³https://www.dfg.de/download/pdf/foerderung/grundlagen_dfg_foerderung/forschungsdaten/leitlinien_forschungsdaten.pdf

2. Research data shall be stored, archived and published in the long term in dedicated and subject-specific repositories or in existing institutional infrastructure of the participating institutions in accordance with good scientific practice. They are part of the researchers' scientific output.
3. Principal Investigators are responsible for the data management of their research projects. In particular they are obliged to ensure compliance with good scientific practice and for the integrity of the data collected.
4. DQ-mat scientists shall set up, implement, and regularly update their own project-internal data management plans as part of the project planning process. In particular, a data management plan efficiently describes and specifies all measures for handling research data during and after the project period. The DMP covers the following aspects:
 - documentation and data quality,
 - project storage and technical archiving,
 - legal obligations and conditions,
 - data exchange,
 - long-term data accessibility,
 - and responsibilities and resources.
5. In order to avoid duplication of work, all DQ-mat members have to check if already existing data can be reused in a meaningful way. Available data that will be reused shall be listed in the data management plans.
6. The PIs of CRC 1227 commit themselves to follow discipline specific standards. The type of documentation and the tools (e.g. electronic laboratory notebooks, Wikis etc.) and methods used shall be documented in the data management plans. This applies in particular to (meta-) data standards and methods of data processing and analysis.
7. Preferred file locations (e.g., institute or institution servers) and naming conventions have to be specified in the data management plans.
8. All DQ-mat members protect their research data from loss and misuse. Original data shall not be saved without backup. Data storage volumes with sensitive data are to be encrypted. Access rights are to be defined and secure passwords are to be used.
9. Data that are the basis of published research results must be retained for 10 years. If these data cannot be kept (e.g. not enough storage space), instructions for reproduction must be archived. Redundant and corrupt data shall be deleted.
10. All data generated by DQ-mat members need to be evaluated in terms of their relevance for other research contexts and technical feasibility of publication. This evaluation will be documented within the DMP. Research data suitable for publication should be published according to the FAIR principles as soon as possible. It shall be made openly available for scientific purposes and provided with an open license⁴ and with a persistent identifier, e.g. DOI (Digital Object Identifier), to ensure findability and reusability. Exceptions from this principle must be justified, e.g. by rights of third

⁴<https://creativecommons.org/>

parties. This data may be available upon request. Metadata of this data still need to be published and provided with a PID to be findable. If research data is published with an embargo, a justification must be provided.

11. Scientists shall use CC0 or CC BY licenses for the widest possible reuse. This meets both the requirements of the funding agencies and the FAIR Data Principles. For data that shall be archived but may not be published, the LUIS, for example, offers an archive⁵.

⁵<https://www.luis.uni-hannover.de/de/services/speichersysteme/archivierung/>