

Guidelines for handling digital research data at Friedrich-Alexander-Universität Erlangen-Nürnberg

Research Data Policy

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1. Preamble

This Research Data Policy is based on the FAIR principles as well as on the "Principles for the handling of research data" ("Grundsätze zum Umgang mit Forschungsdaten") (2010)¹ from the Alliance of Science Organizations in Germany and the recommendations on "Safeguarding good scientific practice" (2013)², the "Guidelines on the handling of research data" (2015)³, and the code of conduct "Guidelines for safeguarding good research practice" (2019)⁴ from the German Research Foundation (DFG)⁵. In addition, all other guidelines at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) such as the Open Science Policy⁶ and the Intellectual Property Policyⁿ as well as the "Regulations for safeguarding good scientific practice and dealing with scientific misconduct at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)" (2022) must be complied with.

FAU believes that storing and managing research data is crucial for successful, sustainable research and scientific integrity. It is essential that research data are handled responsibly and methodically. If the University, its members and the general public are to benefit, this must not only be encouraged but also made a requirement, and it is important to raise awareness of research data and FAIR principles in the long term.

Research data management (RDM) is part of the University's information and communication technology strategy. FAU will introduce suitable measures to accompany this ongoing process at all times.

2. Responsibilities of researchers

This Research Data Policy is aimed at all members of FAU involved in research or teaching as well as all visiting scholars or scientists at FAU. Both individual researchers and those in charge of research projects are responsible for ensuring the appropriate management of all digital research data generated over the duration of the project. In particular, they ought to take discipline-specific recommendations from DFG review boards and academic societies into account. They shall be responsible for research data management and quality assurance in their working groups and shall make arrangements for when group members change. These arrangements shall include ensuring that the original data remain at the site of origin, taking steps to ensure that primary data are

¹ https://doi.org/10.2312/ALLIANZOA.019

² https://doi.org/10.1002/9783527679188.oth1

³ https://www.dfg.de/download/pdf/foerderung/antragstellung/forschungsdaten/richtlinien_forschungsdaten.pdf

⁴ https://doi.org/10.5281/zenodo.6472827

⁵ Wilkinson et al., "The FAIR Guiding Principles for scientific data management and stewardship", Scientific Data Vol. 3, 160018 (2016), https://doi.org/10.1038/sdata.2016.18

⁶ https://doi.org/10.5281/zenodo.5602559

⁷ https://www.fau.de/?p=1177518

⁸ https://www.fau.de/fau/rechtsgrundlagen/sonstige-regelungen/#fehlverhalten

transferred appropriately, clarifying access rights and allowing research data to be duplicated when changing workplace.

Members of FAU shall comply at all times with valid legal provisions and regulations governing ethical research. This applies in particular to handling personal data and intellectual property eligible for protection. In case of doubt, the advisory services and supervisory bodies at FAU (including the Data Protection Officer, the legal department, the University Library, the Office of Knowledge and Technology Transfer and Continuing Education or the relevant Ethics Commission) shall be consulted.

All research proposals must include expenses for research data management and apply for sufficient funding, generally at least 5% of the project sum in line with European recommendations⁹.

3. Responsibilities of FAU

FAU and, where applicable, its services and research support facilities, are responsible for:

- Ensuring that good framework conditions are in place to enable members to meet the principles stipulated in this policy
- Recognizing performance in the field of research data management and data and software publications, for example in evaluation proceedings
- Providing elementary services for research data
- Ensuring that structures for supporting research data management are established in the organizational units across the University:
 - Data stewards: responsible for tasks specific to their discipline and providing support at chair or department level
 - Data custodians: at the level of the faculties, centrally responsible within FAU for the management of datasets whose authors have since left FAU.

FAU will establish a central service center to support all researchers responsible for RDM at all levels of the research data life cycle (aiming in particular to avoid any notable loss of research/innovation potential). This service center will take the requirements of researchers at FAU into account and will cooperate with the Chief Information Officer (CIO), the Erlangen Regional Computing Center (RRZE), the University Library (UB), the Medical Center for Information and Communication Technology at Universitätsklinikum Erlangen (MIK) and research support facilities within the University Administration, as well as further relevant stakeholders as and when required.

The central service center for research data management

- Provides basic RDM services for researchers at FAU free of charge (in particular advice, storage capacities, general RDM systems)
- Provides project-related RDM for a fee (in particular project-specific storage capacities, RDM services and development)
- Designs new RDM practices, policies and services and also coordinates all RDM activities at FAU as far as possible.

It is predominantly funded by fees for project maintenance, as well as by the overhead funding provided for the research projects.

⁹ <u>European Commission, Directorate-General for Research and Innovation, Turning FAIR into reality: final report and action plan from the European Commission expert group on FAIR data, Publications Office, 2018, https://data.europa.eu/doi/10.2777/1524</u>

4. Guidelines and recommendations

Research data management is a rapidly evolving field. Therefore, the proposed processes and recommendations and the research data glossary as of the version dated April 12, 2023 will no longer be incorporated into this Research data policy, but will instead be stipulated in separate handouts, recommendations and guidelines. These shall cover the following specific areas:

- 1. Features of the research data life cycle and data management plans
- 2. Documentation/metadata for research data
- 3. Organizational measures for ensuring long-term backups of research data
- 4. Saving research data
- 5. Terms of access and use

The central institution will evaluate these aspects regularly and adjust them to suit current requirements. They will be decided on by its members and published on the website¹⁰. They supplement the various provisions stipulated in the DFG code of conduct for safeguarding good research practice in the area of data management¹¹.

FAU recognizes that detailed guidelines and requirements going beyond the scope of this policy and the general guidelines mentioned above are necessary for individual subject disciplines and for certain research methods. Researchers are therefore obliged to take certain subject-specific requirements and procedures established in their subject area into account. ¹² They should pay particular attention to the efforts and concepts of the national research data infrastructure (NFDI) and/or the NFDI consortia.

5. Teaching and providing skills

Future generations of scientists must be taught the principles of good data management and basic skills in dealing with data. Research data management and data literacy are key to modern research, and all graduates ought to be schooled in the basics.

FAU shall continue to expand the general training currently offered. We explicitly recommend and welcome incorporating subject-specific methods of research data management into curricula taught at departments and faculties.

6. National networks

FAU cannot successfully implement good research data management without taking an active part in national and international efforts. Accordingly, the University expressly approves FAU members or institutions becoming involved in research data initiatives of relevance to their subject areas. FAU is particularly in favor of researchers contributing their experience and the perspective of research at FAU to the relevant sections in NFDI. The same applies to ongoing or emerging initiatives such as EOSC, GO FAIR, RDA or CODATA.

¹⁰ Policies and working papers on research data management at FAU

¹¹ https://doi.org/10.5281/zenodo.3923601

¹²A compilation of recommendations and subject or method-specific guidelines from the DFG and various associations for handling research data is available at: https://wissenschaftliche-integritaet.de/kommentar_tags/forschungsdaten/ and at https://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/forschungsdaten/empfehlungen/index.html (last checked on November 28, 2022).

7. Evaluation

These principles shall be evaluated regularly and amended to meet current standards at the latest every three years.

The Guidelines for handling digital research data at Friedrich-Alexander-Universität Erlangen-Nürnberg were first passed by the Executive Board on November 26, 2016. Last amended on April 12, 2023 by resolution of the Executive Board.

