Guidelines on Digital Research Data at TU Darmstadt
Translation of the official German text “Leitlinien zum Umgang mit digitalen Forschungsdaten an der TU Darmstadt” from December 16th, 2015

Technische Universität Darmstadt considers responsible and academic handling of research data as a fundamental contribution to the production and distribution of scientific knowledge. It is part of our Rules of Good Scientific Practice. The university encourages and supports sustainable safeguarding, and well-structured, open access to research data. Therefore, TU Darmstadt has passed these guidelines on digital research data for its members.

Replicability and scientific verifiability of scholarly research, as well as assuring best possible re-use of research results in academia are equally important objectives. Economic processing of research data is subject to separate agreements. Our university is aware of differences between academic disciplines that will occur during the implementation of these guidelines.

1. Research data are all digital data that are produced during the process or as the outcome of experiments, measurements, simulations, software developments, studies of primary sources, inquiries or surveys. Documentation and software necessary for understanding are vital parts of the research data themselves. Research data exist in different aggregation levels and specific digital formats corresponding to the respective academic discipline.

2. Research Data Management (RDM) means all scientific activities that involve digital data seeking to accomplish the objectives mentioned above. This includes all working stages from planning to production to using and editing research data. Finally, also permanent archiving of data or deleting them is part of Research Data Management. RDM explicitly includes documentation of the production of research data according to the specific discipline's standards. It also means secure storage, accurate editing and, if applicable, appropriate publishing of research data.

3. Our university recommends to create a research data management plan even before starting your research project. This way, systematic and sustainable management of data can be guaranteed. Research data management plans include descriptions of all relevant data that may be produced during
research. It also includes a concept on how to deal with such data according to matters of accuracy, completeness, authenticity, integrity, confidentiality and destination, as well as intellectual property rights and rights of use. Here, it is necessary to incorporate subject specific characteristics and standards. The plan also needs to be constantly updated as your work proceeds.

4. The heads of a research project are responsible for managing all research data that are produced during the entire process. In particular, they are obliged to ensure compliance to standards of good scientific practice and long-term archiving. They are also committed to meet the relevant demands of research funders and partners. They choose which research data should be archived when, where and under which conditions of archiving and, if applicable, about their publication. This decision has to be made in agreement with fellow researchers. Issues of ethics, data privacy and copyright law have to be considered at this point. Verifiability and reusability of data are particularly important aspects. The heads of a project organize the research data management in their working group and settle arrangements for a change of locality of its members. TU Darmstadt recommends its members to publish research data via a subject-specialized or an institutional platform for the purpose of open access to science and research.

The executive board supports the implementation of these guidelines by several key measures. These include technical, organizational and legal consulting through all stages of research data management. Especially, we assist our members in setting up data management plans and in choosing and realizing a proper archiving and publishing strategy. Therefore, TU cooperates with other scientific institutions and contributes to common standards and structures. Methods of discipline specific research data management shall become a substantial part of teaching and training, especially in laboratory courses, students projects and final theses.