



UNIVERSITÄT
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Saarland University Open Science Policy

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History of Changes

Date	Change	Person responsible
06.09.2024	Update of links in footnotes 3 and 20	Nina Christmann (Dez. F)
06.09.2024	Adaption of denomination of vice-president in chapter 3, item 6	Nina Christmann (Dez. F)

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1 Preamble

Saarland University is committed to the principles of open science as part of its social responsibility and in order to ensure good scientific practice. Open science encourages the free exchange, transparency, reusability and reproduction of data by opening up access to academic research, communication, teaching and learning processes. Open science accelerates the dissemination of research findings and contributes to good scientific practice by increasing the verifiability of data for quality assurance purposes.

In this policy, the term 'open science' encompasses open access, open methodology, open data, open source and open educational resources:

- **Open access** refers to free-of-charge and, as far as possible, unrestricted access to scientific publications on the Internet.
- **Open methodology** denotes the practice of providing a detailed description of and open access to the research question, the research methods and materials, data and the data analysis so these elements are comprehensible and can be reproduced and applied in new ways.
- **Open data** means that data and analysis scripts are freely accessible and can be used, modified and further disseminated.
- **Open source** software means that a software's source code can be viewed, modified and used.
- **Open educational resources** (OER) refers to educational content and teaching materials that are created according to FAIR principles¹ and can therefore be accessed, used and developed for further teaching activities.

Saarland University strives to take into account the principles of open science in all teaching and research processes, and strongly encourages its institutions, faculties, researchers, teaching staff and students to adopt these principles in all areas of their work.

This Open Science Policy was developed with reference to the Open Science Policy of Friedrich-Alexander-Universität Erlangen-Nürnberg.² Further sources of orientation were the DFG Code of Conduct 'Guidelines for Safeguarding Good Scientific Practice'³, the 'Model Policy on Open Science

¹ The FAIR principles are generic rules developed in 2016 for handling research data with the aim of improving the Findability, Accessibility, Interoperability, and Reuse of such data. See <https://www.go-fair.org/fair-principles/>. Retrieved on 17/11/2023 or also (available in German only): <https://forschungsdaten.info/themen/veroeffentlichen-und-archivieren/faire-daten/>. Retrieved on 04/05/2023.

² <https://zenodo.org/record/5602560#.ZGTzDOxBzVt>. Retrieved on 17/05/2023.

³ <https://zenodo.org/records/6472827> Retrieved on 06/09/2023 and https://www.uni-saarland.de/fileadmin/upload/fakultaet/m/Promotionsbuero/Wissenschaftliche_Praxis/DB01-342_English.pdf retrieved on 28/11/2023.

for Research Performing Organizations' of OpenAIRE⁴, the 'UNESCO Recommendation on Open Educational Resources (OER)'⁵ and the 'Open Science Policy' of the University of Konstanz⁶.

2 Scope

This policy contains recommendations aimed at all institutions and faculties, researchers, teaching staff and students at Saarland University. In the case of externally funded research projects, any third-party agreements regarding access rights, management and storage of data shall take precedence over this Open Science Policy. In addition, the regulations of Saarland University regarding data protection and IT security are binding. Laws and regulations on copyright and related rights, industrial property rights (patent law) and data protection remain unaffected and shall take precedence over the provisions of this policy.

Saarland University is aware that different academic disciplines have different expectations and requirements regarding open science. It is therefore crucial that we take an interdisciplinary and long-term approach to raise awareness and take long-term action to implement open science practices. Saarland University shall support this continuous, subject-specific process with a range of appropriate measures. In cases of doubt regarding aspects of open science, the relevant bodies (in particular the Open Science Board) should be consulted for guidance.

⁴ <https://www.openaire.eu/model-policy-on-open-science-for-research-performing-organisations>. Retrieved on 17/05/2023.

⁵ <https://www.unesco.org/en/legal-affairs/recommendation-open-educational-resources-oer>. Retrieved on 17/05/2023.

⁶ <https://www.kim.uni-konstanz.de/en/openscience/open-science-policy/>. Retrieved on 17/05/2023.

In addition to this Open Science Policy, the Principles of Good Scientific Practice,⁷ the Open Access Resolution,⁸ the Intellectual Property Policy (Allgemeine Leitlinien zum Umgang mit Geistigem Eigentum)⁹, the Research Data Management Policy¹⁰ and the Guidelines and Recommendations for Research Data Management¹¹ of Saarland University must also be observed.

3 Responsibilities of Saarland University

Saarland University is responsible for:

1. Supporting and enabling the transition to open science through education, training and awareness-raising measures for researchers, teaching staff, students and other employees, and by providing the necessary infrastructure and funding.
2. Providing technical, organizational and human resources to an appropriate extent to enable the long-term storage of research data by researchers according to the FAIR principles if no suitable infrastructure is freely available.¹²
3. Integrating open science practices into the assessment criteria for appointment procedures (e.g. agreements on targets and performance). This may refer to all aspects of open science listed in the above preamble and explained in Section 4 of this policy.
4. Providing guidance and recommendations on open access licenses and copyrights as well as on funding opportunities offered by various funding bodies for implementing open science requirements.
5. Providing comprehensive, further information on the open science topics covered in this policy.
6. Establishing an Open Science Board tasked with providing guidance and support regarding all matters relating to open science. The Open Science Board shall be chaired by the Vice-President for Research and Outreach. The Board shall also include a representative of the

⁷ https://www.uni-saarland.de/fileadmin/upload/fakultaet/m/Promotionsbuero/Wissenschaftliche_Praxis/DB01-342_English.pdf

⁸ https://www.sulb.uni-saarland.de/fileadmin/SULB/PDF/OA/Anlage_G_OA_Resolution_UdS.pdf(Available in German only). Retrieved on 04/05/2023.

⁹ https://www.uni-saarland.de/fileadmin/upload/dezernat/ft/Sonstiges/UdS_IP-Policy_Stand_2018-07.pdf(Available in German only). Retrieved on 29/11/2023.

¹⁰ https://www.uni-saarland.de/fileadmin/upload/verwaltung/ombudsperson/FDM_policy_UdS_v02_EN.pdf. Retrieved on 04/05/2023.

¹¹ https://www.uni-saarland.de/fileadmin/upload/verwaltung/ombudsperson/FDM_Guidelines_UdS_EN.pdf. Retrieved on 04/05/2023.

¹² See also the Research Data Management Policy of Saarland University: https://www.uni-saarland.de/fileadmin/upload/verwaltung/ombudsperson/FDM_policy_UdS_v02_EN.pdf. Retrieved on 27/04/2023.

Saarland University and State Library (SULB) and a representative of the Digitalization and Sustainability Unit. For faculty-relevant topics, representatives of the faculties may be consulted as well as representatives of the Education and Quality Assurance Division for topics relating to OER and the Research Management Division for topics relating to patent law and intellectual property. Furthermore, the Open Science Board can include additional individuals for a set period of time if required. The Open Science Board shall receive administrative support from the Research Division, particularly with regard to the development of training.

4 Recommendations to all members of the research community at Saarland University

Saarland University recommends that its institutions, faculties, researchers, teaching staff and students support the principle of open science through the following measures.

4.1 General aspects

1. Taking into account the principles and requirements in this policy in all teaching and research processes.
2. Using persistent identifiers (such as DOIs (Digital Object Identifier), ROR IDs (Research Organization Registry) and future identifiers for project approvals, projects, physical objects/specimens, facilities and instruments, etc. for teaching and research findings (e.g., data, publications) as well as persons (e.g., authors and cooperation partners through the use of ORCID IDs (Open Researcher and Contributor ID)).
3. Applying for all eligible funds available for implementing open science practices in accordance with the requirements of the funding bodies and making use of the advisory and information services offered by Saarland University.
4. Licensing their teaching outcomes and research findings in a suitable (open) form in accordance with the principles of open science¹³.
5. Integrating open science principles in personnel recruitment and selection (e.g., in job advertisements, in habilitation procedures, as a criterion in selection decisions, consideration in selection committees).
6. Supporting the open science approach in the course of activities as a reviewer or editor.
7. Incorporating open science practices into individual supervision agreements and agreements on targets and performance for early career researchers (doctoral regulations, supervision agreements for doctoral candidates) and in academic qualification work (student essays and theses, dissertations, habilitations, etc.).

¹³ This means, for example, that suitable outputs can/should be made available with a Creative Commons license.

<https://de.creativecommons.net/was-ist-cc/>(Available in German only). Retrieved on 23/11/2023

8. Teaching open science practices within the teaching content of study programmes and as part of the training of early career researchers.

4.2 Specific aspects

4.2.1 Open access

A machine-readable electronic copy of the full texts of publications (published articles or accepted manuscripts) together with relevant metadata should be filed in the institutional repository SciDok or another suitable infrastructure if this is legally possible. Saarland University recommends that its researchers retain rights of use to their own work and that exclusive rights of use should not be assigned to third parties. Saarland University recommends using existing (co-)funding opportunities for open access publications; advice can be obtained from the SULB.¹⁴ In the case of 'closed' publications, it is recommended that the associated metadata is made publicly accessible in accordance with the FAIR principles.

Further details can be found in the Open Access Resolution of Saarland University.¹⁵

4.2.2 Open data

Open data should be provided following the principle of "As open as possible, as closed as necessary". Metadata, which ensures that data can be found, and the data itself should be provided in accordance with the FAIR principles.

Full details are set out in the Research Data Management Policy of Saarland University¹⁶ and in the accompanying Guidelines and Recommendations for Research Data Management¹⁷.

4.2.3 Open methodology

All materials and methods available in digital form that are required for validating and reproducing the findings presented in scientific publications should be filed in a suitable repository. This includes

¹⁴ <https://www.sulb.uni-saarland.de/en/academic-services/open-access-at-saarland-university> Retrieved on 04/08/2023.

¹⁵ https://www.sulb.uni-saarland.de/fileadmin/SULB/PDF/OA/Anlage_G_OA_Resolution_UdS.pdf(Available in German only). Retrieved on 04/05/2023.

¹⁶ https://www.uni-saarland.de/fileadmin/upload/verwaltung/ombudsperson/FDM_policy_UdS_v02.pdf. Retrieved on 04/05/2023.

¹⁷ https://www.uni-saarland.de/fileadmin/upload/verwaltung/ombudsperson/FDM_Guidelines_UdS_EN.pdf. Retrieved on 04/05/2023.

questionnaires, stimulus materials, method descriptions, source codes and scripts, electronic laboratory notebooks¹⁸ and preregistrations¹⁹. The open materials and methods should be provided with persistent identifiers (see above) and meaningful metadata and linked to the publications. A similar procedure should be followed for materials and methods not published in publications. The rights of use should be defined by granting suitable (open) licenses.

4.2.4 Open source

Open-source technologies (software and hardware) should be used as far as possible and own technologies should be made as accessible as possible. The persistence, citability and documentation of the source code of publicly accessible software should be ensured. The provision of data on suitable development platforms should be examined and implemented where possible.²⁰

4.2.5 Open educational resources

Open educational resources should be used (e.g., including in teaching) and open educational resources should be developed and published on suitable platforms.²¹

5 Policy Evaluation

The principles described in this policy are regularly evaluated by the Open Science Board and modified if necessary.

6 Commencement

This Open Science Policy was adopted by the Senate of Saarland University on 29/05/2024.

¹⁸ European Commission, Directorate-General for Research and Innovation, Switters, J., Osimo, D., *Electronic Laboratory Notebooks (ELNs) as key enablers of open science : open science monitor case study*, Publications Office, 2019, <https://data.europa.eu/doi/10.2777/07890>

¹⁹ When preregistering empirical work, researchers specify their research plan (e.g. hypotheses, all relevant methodological specifications, analysis plan) in advance of a study and submit it as a non-editable document to a suitable platform. See also <https://www.cos.io/initiatives/prereg>.

²⁰ See also DFG Code of Conduct Guidelines for Safeguarding Good Scientific Practice <https://zenodo.org/records/6472827>. Retrieved on 06/09/2023.

²¹ UNESCO Recommendation on Open Educational Resources (OER) (2019). <https://unesdoc.unesco.org/ark:/48223/pf0000373755/PDF/373755eng.pdf.multi.page=3>. Retrieved on 21/03/2023.