

SDU Open Science Policy

1. Preamble

The University of Southern Denmark (SDU) is known and respected globally as a university producing excellent research meeting the highest quality standards. This implies that all research associated with SDU must strive for trustworthiness and high integrity; this includes honesty, transparency and accountability.

The contribution of researchers and participants to the collection and creation of primary materials and data is of great importance to SDU. Research data is recognised as supporting research findings, contributing to further research and discussion, and enabling public trust in research.

Responsible conduct of research includes proper management of research data, ensuring credible and transparent research and findable, accessible, interoperable and re-usable research data. Hence, proper research data management enables research to be more efficient and open. SDU encourages that research data and research publications are made freely accessible, except when this is in conflict with legal or contractual obligations or current regulations on for example ethical, confidentiality or privacy matters or intellectual property rights.

Access to research data and research publications is thus recognized to enhance the potential impact of the research at SDU on research communities and society as a whole.

Purpose

The intention of the policy is to support departments, researchers and research support staff by outlining how research data are managed at SDU from planning, during and beyond the life of the research project to:

- be in accordance with best practice in the respective field of research, codes, ethical protocols, including confidentiality, and privacy and other legal requirements including the *Danish Code of Conduct for Research Integrity*¹;
- ensure, where appropriate, that primary materials and research data are available to support research findings and to contribute to other research projects;
- enable, where appropriate, that research data support Open Science², by making data findable, accessible, interoperable and reusable;
- align research data management practices with requirements from funders and publishers of scientific journals;
- promote visibility and recognition of SDU's research.

Further it is the intention of this policy to provide support to departments, researchers and research support staff by outlining how publications can be made available via Open Access in order to ensure that:

- other researchers, teachers, practitioners, journalists and society as a whole benefits from the research undertaken at SDU.
- the research undertaken at SDU receives most possible recognition and carries most possible impact by seeking the highest possible degree of accessibility and usability.

Scope

This policy applies to

- staff, students, visiting researchers, and honorary and adjunct appointees undertaking or supporting research activities at all SDU locations and external research locations (in the following referred to as researchers).
- research data that are collected and/or used during SDU research activities, including materials, data, records and datasets, held in all formats and media.
- research publications that are written while the author or authors are affiliated with SDU.

2. General principles

Research data must be:

- a. Recognised as valuable
- b. Planned for (when commencing a new research project)

¹ Danish Code of Conduct for Research Integrity (2014): <http://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity>

² Open science is the umbrella that includes transparent methods and public access to results, including publications, data and code.

- c. Stored securely and appropriately
- d. Findable, accessible, interoperable and reusable
- e. Retained in accordance with disciplinary traditions, otherwise for a minimum of five years after publication or public release of the research
- f. Appropriately disposed of
- g. Managed in line with ethical protocols, including confidentiality
- h. Compliant with legal requirements, such as privacy and data protection, funder policies, the rules of Good Scholarly Practice at SDU and other local policies³⁴

Research publications are strongly encouraged to be:

- a) Deposited in SDU's institutional repository (Pure). If the author does not restrict it, the file will be subject to Open Access, otherwise the file is kept non-Open Access in Pure.

The above requirements must be followed only if it can be done in accordance with relevant national and international legislation, ethical guidelines, industrial agreements and institutional and funder policies.

3. Definitions

Research data means the material, data, records, files, and other evidence underpinning the research projects' findings, or other outcomes. This includes:

- *Primary material:* any material (e.g. specimens, laboratory notebooks, interviews, texts and literature, digital raw data, recordings and any other records including computer code necessary for the reconstruction and evaluation of reported results of research, and the events and processes leading to those results) that forms the basis of the research.
- *Data:* detailed records of the primary materials that comprise the basis for the analysis that generates the results.

Research data management means planning for and organising the collection, analysis, storage, re-use and disposal of research data. It ensures that researchers and institutions are able to meet their obligations towards funders, improve the efficiency of research, and make data available to verify their findings or for reuse, where appropriate.

³ "Good Scholarly Practice," accessed February 3, 2017, http://sdunet.dk/Vaerktoejer/love_regler_aftaler/Forskning/God-videnskabelig-praksis.aspx?contentlang=en.

⁴ Incl. project partners' universities or institutions

Open Access means publishing research results in a way that provides immediate, free online access to the publication and/or research data without any barriers, as defined in the Berlin declaration⁵. The Danish government encourages use of the so-called “green” mode of Open Access, or self-archiving. Self-archiving means publishing in a journal which is not Open Access and at the same time or after an embargo depositing a copy of the publication in a subject or institutional repository.

Open Science means that scientific knowledge including research data and - publications should be openly shared as early as possible with reuse in mind. Therefore, it is supportive of Open Science to publish data, publications and other aspects of science and research in a way that allows for usage beyond reading, e.g. text mining, analysis, visualisation and more.

4. Responsibilities

Research Data

SDU acknowledges the importance of ensuring that all research data are managed so that they are secure, accessible, and, where appropriate, reusable, and so that any ethical, confidentiality and privacy requirements and concerns are respected. The responsibility is shared between

Principal investigators:

- *Supervise Research Data Management:* Principal investigator must ensure that researchers in the projects are instructed to conduct research in accordance with the policy and are made aware of their responsibilities as mentioned in this policy.

Researchers:

- *Research Data Management:* Researchers must ensure that research data are managed in line with best practice in their field; this includes planning the management of their primary materials and data.
- *Storing research data:* Researchers must ensure that primary materials and data are retained, stored and managed in a clear and accurate form that allows results to be assessed, the procedures to be retraced and, when relevant and applicable, the research to be reproduced.

⁵ “Berlin Declaration,” *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*, accessed February 2, 2017, <https://openaccess.mpg.de/Berlin-Declaration>.

- *What to store and for how long:* Researchers are, unless otherwise regulated⁶, responsible for deciding the extent to and duration for which primary materials and data are to be retained. When deciding this, researchers should consider the value of the primary materials for assessing the results of the research and the physical and technical possibility of storage at the institution.
- *Disposal:* Researchers should plan for the appropriate disposal of primary materials and data.
- *Access and sharing:* Researchers are responsible for managing the access to their research data and are encouraged to make their research data freely accessible, except when this is in conflict with contractual legal obligations or current regulations on for example ethical, confidentiality or privacy matters, intellectual property rights or in cases where other circumstances require a specific assessment.
- *Open Access to research publications:* Authors are urged to self-archiving research publications in the SDU institutional repository (Pure) or other suitable repositories, with a link to the data in Pure. In case of publisher restrictions, a dark copy (non-Open Access) should be deposited.
- Authors can choose to publish in an Open Access journal.

SDU:

- **Data storage:** SDU must provide a storage system that allows researchers to manage their data responsibly. Such a storage system includes: storage space, access control, and back-up.
- **Research Data Catalogue:** SDU must provide a research data catalogue that enables data to be findable, accessible and citable.
- **Research Data Management Support:** SDU should 1) provide education and training opportunities; 2) provide advice on practice, legal issues and infrastructures; and 3) develop and maintain common systems and infrastructures for research data management; 4) provide the systems and infrastructures that enable collaborative research fulfilling legal requirements for data storage and use

⁶ This refers to collections of primary materials and data that may be regulated by contractual agreements or by the law to be kept for a specified time, e.g. governmental research institutions

Research Publications

SDU acknowledges the importance of ensuring that publications authored by SDU's researchers are published Open Access. The responsibility is shared between:

Principal investigators:

- Principal Investigators are responsible for that researchers under their management are instructed to publish research results in accordance with this policy and are made aware of their responsibilities as mentioned in this policy.

Researchers:

- Researchers should strive to ensure that research results are published in line with common practice in their field but with a best effort to publish Open Access.

SDU:

- SDU must provide an institutional repository that allows researchers to self-archive a copy of their publications in a commonly accepted format.
- SDU must provide adequate guidance of researchers in Open Access publishing

5. Policy process

The SDU Open Science policy was approved by the Executive Board 9 March 2018, and should be considered for review every five years.