**Guides for research data management and the implementation of the Open Science Policy**

**Department of Political Science and Public Management at SDU**

***Updated March 2021***

1. **Purpose of this document**

Since March 9, 2018 SDU has an Open Science Policy[[1]](#footnote-1). The policy consists of three elements: Data management planning; FAIR research data; and Open access to academic publications. The Policy expects researchers to prepare a data management plan for their research projects in order to be able to better collect, structure, save, describe and when possible, share data.

This document outlines how the SDU Open Science Policy is implemented at the Department of Political Science and Public Management. The Department’s Policy does not apply retrospectively, but only to data collection and analysis which starts after the guidelines have been approved. The content of the document builds upon similar guidelines for other departments, primarily the Guidelines for the Department of Psychology and the University Library.

1. **Scope of the Guidelines for the Department of Political Science and Public Management**

These guidelines apply to

* scientific employees of the Department of Political Science and Public Management, including PhD candidates
* research data that are collected and/or used during SDU research activities
* research publications that are written while the author or authors are affiliated with the Department

Research data refer to material, data, records, files, and other evidence underpinning the research projects’ findings, or other outcomes, including (the list is not exhaustive):

* experimental and observational data
* questionnaires or surveys as well as responses to questionnaires and surveys
* codebooks, results of intercoder tests and coding results
* interview guides, notes, audio or video recordings or transcripts of interviews
* data, regardless of form of storage (paper, electronically)

The Guidelines do not cover the following data:

* administrative data
* publicly available data (OBS: GDPR rules also applies to publicly available personal data)
* literature searches
* studies included in systematic reviews and meta-analysis
* data collected by students as part of their education

1. **Responsibilities**

The Head of Department is responsible for the timely revision of this document (see Section 11) and for making sure that the guidelines are communicated to new employees.

If the Principal Investigator of a research project is employed at the Department, the Principal Investigator must ensure that a data management plan is written, updated and implemented.

If scientific employees at the Department are involved in a research project, of which the Principal Investigator is not an employee at the Department, the employees should ensure that a data management plan is written, updated and implemented covering the data that they collect themselves.

Scientific employees at the Department who are involved in a research project of which the Principal Investigator is not a scientific employee at the Department; have concerns about the data management of the project; and have been unsuccessful in resolving this issue with the PI, should contact their Head of Department for advice on how to proceed on the issue.

Ph.D. supervisors are responsible for supervising the PhD candidates’ writing, updating and implementation of the data management plan.

When a person leaves the department, as a routine part of the termination procedure, that person must work out a plan for management of the research data that this person is responsible for[[2]](#footnote-2) together with the Head of Section. Researchers who leave the department are allowed to continue using the data they have collected during their stay at the department unless something else has been agreed on beforehand or such use conflicts with data protection legislation. If a project is to continue at the department when the person responsible for the data leaves the department, responsibility for the data must be transferred to another person at the department, after obtaining the necessary permissions (e.g. from SDU RIO). When a project involving personal data is discontinued, and the person responsible for the data leaves the department, it is recommended to offer the data to the Danish National Archives (Rigsarkivet) for archiving. If the Danish National Archives (Rigsarkivet) declines to archive the data, the person responsible for the data is responsible for deleting, or anonymizing, the data if the data can be linked to an individual.

1. **The Data Management Plan**

In connection with every project covered by the department’s Open Science Policy, a Data Management Plan (DMP) must be written. The plan can and should, of course, be updated during the project process, but it is important that data management is incorporated when the project begins and, therefore, a complete written plan should be in place before data collection begins. The project PI is responsible for preparing and updating the DMP.

The DMP is not necessarily a very extensive document, but should as a minimum contain a description of the following:

* Which data are collected in connection to the project? Including primary material³, new data[[3]](#footnote-3) as well as the processing of already existing data.
* How data will be documented? Including, not least, how metadata[[4]](#footnote-4) such as data documentation or log books are stored.
* Whether there are specific ethical issues. Such as when the project interacts with groups in need of special considerations like for example marginalized citizens, or minors under the age of 18.
* Whether to sign specific confidentiality agreements with project participants. Detailing who are included in these agreements and what the agreement should contain.
* How data is anonymized in situations where this is required? Detailing how any codes to identifying data are stored, and who will be able to access these during the project period.
* How is copyright and IPR (Intellectual Property Rights) handled? Detailing who has access to and ownership of data in projects collaborating with external partners outside SDU?
* How data is stored during the project period? Including, the existence of written agreements with project participants outside SDU about meeting the instructions of the DMP.
* How data is stored after project end? Including who is responsible for this (usually the PI).
* Which data to delete or anonymize, and which data to preserve after the project period? Especially how the project will meet the FAIR principles described below (making sure that data are Findable, Accessible, Interoperable and Reusable)?

DMPonline provides templates and a tool for writing data management plans: https://dmponline.deic.dk/. For data management plans required by funding agencies, the respective funding agency’s template should be used.

Examples of DMPs for inspiration will be made available at the department’s SharePoint site.

1. **When commencing a new research project**

Research projects handling personal data must be reported to RIO[[5]](#footnote-5) to ensure that the legal requirements for personal data are met. SDU RIO must be contacted again:

* when these research data are to be shared with external research partners
* when these research data are to be reused internally for other research projects
* when these research data are handed over to a data processor
* when the project changes, for example in case of a change of objective, contact person, group of persons with data access, collecting new types of personal data or extending the project period.

Less significant changes (e.g. project title) are merely reported to SDU RIO within 4 weeks of the change.

**Types of data in the General Data Protection Regulation**

*Personal data:* for example, name, sex, photo, address, telephone number, date of birth, or nationality.

*Sensitive Personal data:* information about race/ethnicity, union affiliation, sexual orientation, religion, political orientation, philosophical orientation, genetic data, biometric data.

*Pseudonymised data:* data where, for example, identifier/name is replaced by a number that can be stored/retrieved.

*Anonymized data* are not covered by the data protection rules.

***Research Ethics Comittee***

SDU has established a Research Ethics Committee, which serves as an internal and overarching ethical review system. The IRB deals with ethical requests and approval issues not subject to the existing Danish ethics review and committee system (e.g. inside social, technical and behavioral research) and/or when institutional approval is required by external interests. The Department recommends seeking approval prior to data collection which raises specific ethical issues, for example when the project interacts with groups in need of special considerations like minors under the age of 18.

See: https://www.sdu.dk/en/forskning/service\_til\_forskere/forskerstoette/ansvarlig+forskningspraksis/research+ethics+committee

1. **During data collection and analysis**

***Data storage and data management options for active projects***

Data storage and data analysis need to comply with the General Data Protection Regulation (GDPR) and Danish legislation. Files with sensitive personal information may not be saved locally on the computer or the desktop. Such data need to be saved where access is limited and logged (for example on Onedrive, or Sharepoint). This also applies to pseudonymised data.

Data processing programs must be registered and approved by IT services. An overview of approved IT systems can be found here: <https://syddanskuni.sharepoint.com/Sites/persondata/SitePages/IT-vejledninger.aspx>

Additionally, Research Data Management support (rdm-support@bib.sdu.dk) and system administrator Erik B. Madsen (erikm@sdu.dk) can be contacted for advice.

As of now, SDU does not have a Data Processor Agreement with Dropbox. That means that we **cannot** use Dropbox for any personal data. Only anonymized data may be stored in Dropbox. Pseudonymised data may not be stored in Dropbox.

***Data organization, documentation and analysis***

Researchers must ensure that data and metadata are arranged structurally for the benefit of own project and potential reuse and/or publication of research data. This requires the application of:

* discipline-specific, best-practice annotation methods
* the use of predefined file structures and versioning systems, ensuring that data entities can be re-identified and retrieved if data insight or deletion is requested.

The University Library can advise on this. Contact Research Data Management

Support at rdm-support@bib.sdu.dk. See also: http://library.stanford.edu/research/data-management-services/data-best-practices/best-practices-file-naming

1. **When a research project is finalized**

When a research project handling personal data is completed, personal data shall as a rule be deleted, anonymized or archived at the Danish National Archives. You can contact RIO for further advice. It is often possible to keep personal data for a certain period after project completion, for example in the interest of writing articles or documenting results.

***Long-term preservation/archiving***

Data and metadata should be preserved for a minimum of five years after publication of the research or after the end of a research project. Data underlying a publication should be stored in a folder with documentation that allows graphs to be reproduced and model results to be recalculated.

Primary data should be preserved in accordance with research traditions.

Storage needs to comply with the General Data Protection Regulation (GDPR) and Danish legislation. It is recommended to use SDU’s data management and storage solution for the preservation of data, metadata and primary material, once this will be up and running.

Beyond this minimum requirement, several types of research data should be preserved for long term access and reuse, including (the list is not exhaustive):

* If it would be unethical to subject humans or animals to unnecessary repetition of experiments, trials, observations or other research activities.
* If it would be unethical or indefensible to waste research funds and human resources that could be put to better use (i.e. prevention and cure of disease) on unnecessary repetition of experiments, clinical trials and observational research.
* Data that are impossible or hard to reproduce.
* Data that are costly to produce, in terms of funding, time or human resources.
* Data that can be reused in new projects, serve as benchmarks, or as reference.
* Data underlying publications.

1. **Publication of research data**

The Department of Political Science and Public Management is committed to practicing and promoting data handling according to the FAIR principles, and therefore supports the Sorbonne Declaration[[6]](#footnote-6) on Research Data Rights. Research data must be **F**indable, **A**ccessible, **I**nteroperable and **R**eusable (FAIR) to the largest extend possible. The University of Southern Denmark encourages that research data are made accessible, respecting ethical regulations, legal and contractual obligations, data protection legislation, and intellectual property rights. While respecting restrictions to the use of data as imposed by project participants (e.g. interviewees, ethics review boards, and funding bodies), an effort should be taken to make data underpinning publications openly accessible in appropriate data repositories, respecting any legal, ethical or commercial limitations. Researchers can choose to make their data available only after an embargo period to allow sufficient time to publish on their data, or out of consideration for the interviewees.

If data underlying publication cannot be made openly available, then justification for this should be given in the Data Management Plan, which should be made available after the project’s completion. Moreover, metadata from such a project must be made publicly available upon project completion. Up-to-date contact information for the PI should be made available in case of inquiries regarding the data are sought.

***Examples of why research data should be made publicly available***

* Because data collection was funded by public money.
* Required by funders or publishers (e.g. Horizon 2020).
* An obligation towards collaborators.
* To expose the PI’s and the department’s research to help increase the impact.
* To enable new research and collaborations.
* For public interest.
* For secondary data analysis in other projects.
* For use in teaching and student projects.
* To heighten credibility and accountability of research at the department.
* To improve transparency and reproducibility.
* To prevent or detect research fraud, biased and selective analyses and publication.
* To make replication of statistical analyses possible.

***Examples of why availability of certain research data might be restricted, or certain data should not be made publicly available***

* To ensure the privacy and safety of research subjects (e.g. research involving at risk research subjects, such as children, refugees, and minority groups in disadvantages circumstances)
* Required by funders or as part of the ethics or other approval processes to undertake the data collection (e.g. some type of research about or for military purposes)
* If making data publicly available negatively impacts ability of the PI and their team to undertake the project (e.g. hinders the willingness of project participants from partaking)
* For the safety of the PI (e.g. if they were undertaking research in dangerous places)

***Examples of where to publish research data***

* Data Journals (e.g. https://openpsychologydata.metajnl.com/)
* A data repository (see e.g., <https://zenodo.org/>, <https://www.re3data.org/>)
* The university library offers guidance on academic open access repositories: <https://www.sdu.dk/en/bibliotek/forskere/rdm+support>

***Recommendations on how to publish research data***

* All datasets should receive a permanent identifier, e.g. DOI (in Danish): https://www.deic.dk/da/news/2017-12-20/DataCite.
* All datasets should receive a license for reuse, e.g. Creative Commons: https://creativecommons.org/licenses/?lang=da, (in English)
* All data should include all necessary metadata.
* Use open and long-lived file formats such as .csv alongside R, SPSS, STATA, SAS
* or other files for statistical or data management software.

1. **Open Access to publications**

The Department **strongly recommends** that all researchers register with ORCID via PURE and create a public ORCID profile. The easiest way to register with ORCID at SDU is through PURE, see https://www.sdu.dk/en/forskning/forskningspublicering/orcid. Researchers should be aware that duplicates may appear in ORCID; this might be resolved by contacting the PURE support team on puresupport@bib.sdu.dk

Information about open access publishing can be found here:

<https://www.sdu.dk/en/forskning/forskningspublicering/open+access>

The Department follows SDU’s general recommendations for Open Access Publishing:

***Type of recommended Open Access***

The department encourages all members of staff to publish all their articles as *Green Open Access* if permitted by the journal. The green way to Open Access includes articles published in traditional subscription journals – that are not Open Access – but allow a version of the article (“final author version approved”), after publication, to be placed in an Open Access institutional repository, which at SDU is PURE. This is also referred to as ‘self-archiving’, which is done by the author him- or herself. SHERPA RoMEO can be checked to see what Open Access and self-archiving options are available for specific journals ([www.sherpa.ac.uk/romeo](http://www.sherpa.ac.uk/romeo)).

**Provided that funding is procured externally**, publishing in *Full* or *Gold Open Access* publications is recommended, as readers have access to these publications immediately and without restrictions (i.e., no subscriptions, no fees, etc.). This type of publication is typically funded via ‘article processing charges’ paid by the author. See also the Directory of Open Access Journals for an overview of Open Access Journals: [www.doaj.org](http://www.doaj.org). According to the SDU policy you should not make compromise regarding the quality of journal you publish in. You should only publish in an open access journal if the journal is of significant quality in the specific field of research.

**Provided that funding is procured externally**, there is a variant of *Gold Open Access* called *Hybrid Open Access*, where the authors publish in traditional subscription journals but offer *Gold Open Access* to articles by paying the ‘article processing charges’. This option is **not recommended** by the department.

Open Access publications can be funded via external grants, provided that this was applied for in the budget and is supported by the funding agency.

Researchers from SDU publish open access free of charge in a number of Elsevier journals. Instead, open access costs are covered by an agreement between Danish research institutions and Elsevier. The agreement is in effect from January 1st2021 up to and including 2024. See <https://www.sdu.dk/en/forskning/forskningspublicering/open+access/publiceringsaftaler/elsevier>

See also this website for a list of other publishers which have Open Access agreements with SDU: https://www.sdu.dk/en/forskning/forskningspublicering/open+access/publiceringsaftaler

1. **Research assessments and Open Science**

The department value transparency in both research (Open Science) and in research assessment (criteria of merit), and supports the *San Francisco Declaration on Research Assessment (DORA)[[7]](#footnote-7).*The departmentis currently in the process of updating its Researcher Qualification Matrix this process will build on the criteria recommended in DORA and the Report *Fremtidens Meritering[[8]](#footnote-8)* .

1. **Review of the policy**

This policy is reviewed and possibly updated by the Head of Department primo every second year (first time primo 2023), or at any point in time relevant or necessary as defined by the department and/or formal regulation by either the government or the SDU.

1. <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf> [↑](#footnote-ref-1)
2. This applies only to data which were collected and analyzed after the Department’s guidelines have been approved. [↑](#footnote-ref-2)
3. *Primary material* refers to any material that forms the basis of the research (for example notes, interview or digital raw data); *Data* refers to detailed recordings of the primary materials that comprise the basis for the analysis that generates the results (Danish Code of Conduct for Research Integrity. <https://ufm.dk/en/publications/2014/the-danish-code-of-conduct-for-research-integrity>) [↑](#footnote-ref-3)
4. *Meta data* refers to data describing your primary material, research data, and project, which enable you and others to identify, understand, and search the work you have created. (Karsten Klint Jensen, Louise Whiteley and Peter Sandøe (eds.) (2018) RCR – A Danish textbook for courses in Responsible Conduct of Research, p. 63. <https://ifro.ku.dk/rcr.pdf>) [↑](#footnote-ref-4)
5. Report to SDU RIO <https://www.sdu.dk/da/anmeldelse> [↑](#footnote-ref-5)
6. [https://www.leru.org/files/Sorbonne-declaration.pdf](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.leru.org%2Ffiles%2FSorbonne-declaration.pdf&data=04%7C01%7Cavd%40sam.sdu.dk%7C3908696b7cc741b6cbd108d8bd1c2032%7C9a97c27db83e4694b35354bdbf18ab5b%7C0%7C0%7C637467276234182578%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=0nS0W1ENvTFv8BpcHjRJLrFf4NnuHU91CyDOAn%2FgwTQ%3D&reserved=0) [↑](#footnote-ref-6)
7. <https://sfdora.org/read/> [↑](#footnote-ref-7)
8. https://ufm.dk/publikationer/2019/fremtidens-meritering [↑](#footnote-ref-8)