

ITU Research Data Management Policy¹

Pretext

ITU is committed to striving for research excellence and to following the recommendations of the Danish Code of Conduct for Research Integrity². This also includes that ITU researchers and staff must conduct proper research data management. Proper management of research data facilitates that research is credible and transparent. Furthermore, it ensures that data is findable, accessible, interoperable and reusable (FAIR³-principles). Hence, proper research data management enables research to be more efficient and open. ITU facilitates research data being 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.

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

Purpose

The policy aims to support departments, researchers and research support staff by outlining how research data are managed at ITU from the initial planning, during and beyond the life of the research project.⁴ The policy:

- is in accordance with best practices in the respective field of research, codes, ethical protocols, including confidentiality; privacy and other legal requirements including the Danish Code of Conduct for Research Integrity;
- ensures, where appropriate, that primary materials and research data are available to support research findings and to contribute to other research projects;

¹ This policy is inspired by the “Policy of the Retention of Primary Materials and Data” from DTU of 7 December 2016

² Danish Code of Conduct for Research Integrity (2014): <http://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity>

³ FAIR-principles refers to Findable, Accessible, Interoperable and Reuseable. Reference: Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., ... Mons, B. (2016). Comment: The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data*, 3, 160018. doi:10.1038/sdata.2016.18

⁴ This includes the data lifecycle. See www.data-archive.ac.uk/create-manage/life-cycle

Field Code Changed

- enables, where appropriate, that research data are made available to support Open Science⁵, by making data findable, accessible, interoperable and reusable;
- aligns research data management practices with requirements from funders and publishers of scientific journals;
- promotes visibility and recognition of ITU's research.

Scope

This policy applies to staff, students, visiting researchers, and honorary and adjunct appointees undertaking or supporting research activities at ITU.

This policy applies to research data that has been collected and/or used during ITU research activities, including materials, data, records and datasets, held in all formats and media.

General Principles

Research data should be:

- a. Recognized as valuable
- b. Taken into consideration (when commencing a new research project)
- c. Stored securely and appropriately
- d. Findable, accessible, interoperable and reusable
- e. Retained in accordance with the traditions of the discipline, otherwise for a minimum of five years after publication or public release of the research
- f. Appropriately disposed
- g. Managed in line with ethical protocols, including confidentiality
- h. Compliant with legal requirements, such as privacy and data protection

Definitions

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

⁵ Open science is the umbrella that includes transparent methods and public access to results, including publications, data and code.

- Primary material is any material (e.g. 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 is detailed records of the primary materials that comprise the basis for the analysis that generates the results.

Research data management is planning for and organizing 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.

Responsibilities

ITU 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 (PI) / Main researchers:

- *Supervise Research Data Management:* PIs have a responsibility as mentors and role models to ensure that researchers under their management are instructed to conduct research in accordance with the ITU policy and are made aware of their responsibilities under the Danish Code of Conduct for Research Integrity.

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 the necessary primary materials and data are 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.
- *What to store and for how long:* Researchers are responsible for deciding the extent to and duration for which primary materials and data are to be retained, unless otherwise

regulated⁶. 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 should not enter into agreements (e.g. with funders or others) that limit their access to their own data and their ability to analyze and publish these data independently, unless such access limitations can be justified by the specific circumstances.⁷ 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 or intellectual property rights.

IT University of Copenhagen:

- *Data storage*: ITU provides a storage system⁸ that allows researchers to manage their data responsibly. Such a storage system includes: storage space, access control, and back-up⁹.
- *Research Data Catalogue*: ITU must provide a research data catalogue that enables data to be findable, accessible and citable.
- *Research Data Management Support*: ITU should 1) provide education and training opportunities in data management; 2) provide advice on practice, legal issues and infrastructures; and 3) develop and maintain common systems and infrastructures for research data management.

Policy process

The ITU Research Data Management Policy to be approved by executive management.

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.

⁷ Danish Code of Conduct for Research Integrity, 1.2/iii, 2014, pp. 8

⁸ The system is based on secure data storage consistent with confidentiality requirements and applicable regulations and guidelines e.g. on the processing of personal data, Danish Code of Conduct for Research Integrity, 2.2/iv, 2014, pp. 10

⁹ The institution is responsible for providing systems for secure and safe disposal of primary materials and data after the retention period, Danish Code of Conduct for Research Integrity, 2.2 / iii / b, 2014, pp. 10