

TU Delft Research Data Framework Policy V2.0

23 June 2020

Name of this document	TU Delft Research Data Framework Policy
Date approved	23 June 2020
Version	2.0
Previous versions	1.0 - https://doi.org/10.5281/zenodo.2573160
Person responsible	Head of Research Data Services, TU Delft Library
Location of TU Delft policy and faculty policieson TU Delft websites	https://www.tudelft.nl/en/library/current-topics/ research-data-management/r/policies/tu-delft- faculty-policies/

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Introduction

The TU Delft Research Data Framework Policy supports the development of mature working practices and policies for research data management across each of the faculties at TU Delft.

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This document serves as an overarching general policy framework for TU Delft as a whole. It is accompanied by Roles and Responsibilities for Personal Research Data (Appendix 1) and an online guidance on practical implementation¹. In addition, each faculty defines their research data policies and procedures specific for their own staff, based on the framework outlined in this policy². In case of inconsistencies or updates, this Framework Policy supersedes faculty policies.

This policy framework is motivated by the belief that data stewardship cultivates:

- Best practice for ensuring that scientific arguments and results are reproducible in the long term.
- Better exposure of academic work of researchers at TU Delft, stimulating the quality of the research process as a whole.
- Responsible management of research data, including the safe storage of personal data and protection of intellectual capital developed by scientists across TU Delft.
- Improved practices for meeting the demands of funders and publishers with respect to research data management and sharing.

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https://www.tudelft.nl/en/library/current-topics/research-data-management/r/policies/tu-delft-faculty-policies/

¹TU Delft Library Research Data Management website:

https://www.tudelft.nl/en/library/current-topics/research-data-management/

² It is expected that, coordinated by Data Stewards, the development of these faculty policies will be completed in 2020.

University-wide roles and responsibilities

The LIBRARY is responsible for:

- Providing robust, high-quality infrastructure to facilitate good data management including:
 - Coordinating the creation and development of high quality advice on research data management
 - A certified archival service (4TU. ResearchData) that offers at least 15 years of long-term curation for research data (in combination with ICT)
 - A dedicated tool for data management planning (DMPonline).
- Working with faculties to provide advice and training in good data management in a disciplinary manner (with Graduate School and Education and Student Affairs)
- Coordinating a network of Data Stewards, who are embedded within the faculties.
- Providing advice and recommendations on Data Stewardship at TU Delft to the Executive Board.
- Coordinating the Personal Research Data Workflow³.

The ICT DEPARTMENT is responsible for:

- Providing a standard, robust, highquality infrastructure to facilitate good data management and storage where possible.
- Providing a custom, high-quality infrastructure to facilitate good data management and storage where necessary.
- Providing secure access management to data according to ICT security guidelines.

The BOARD FOR DOCTOR-ATES is responsible for:

- Providing oversight of the mandatory regulations related to PhD candidates.
- Ensuring that PhD candidates have adequate support to meet these mandatory requirements.

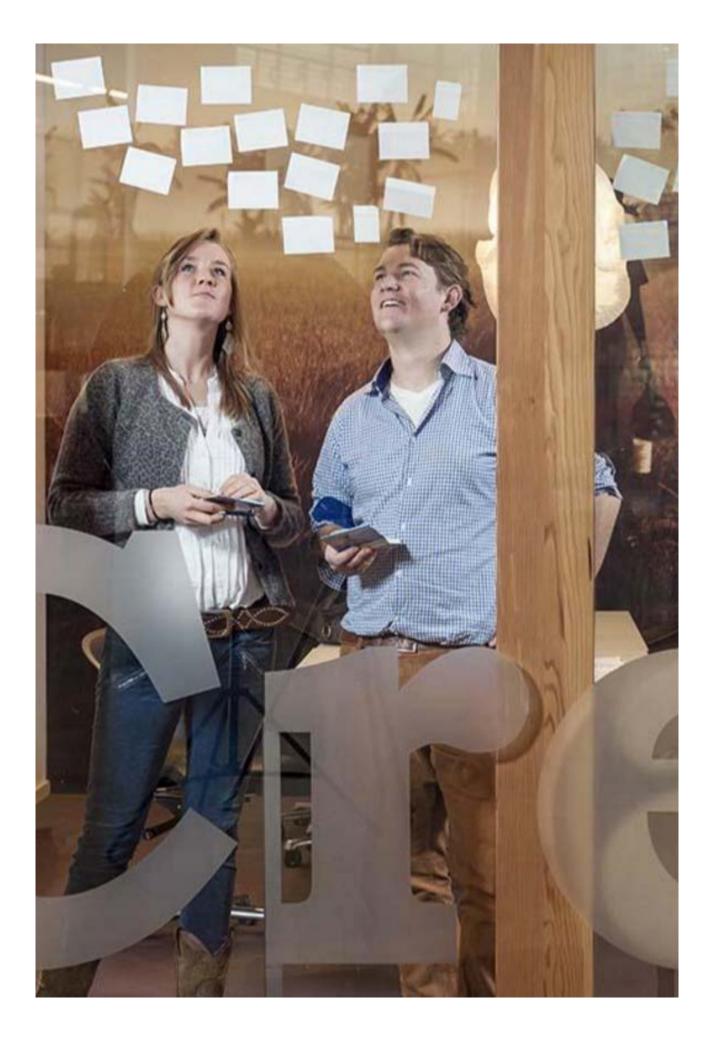
UNIVERSITY SERVICES are responsible for:

- Providing expert contributions to policy and practical issues related to data protection, GDPR and ownership (Legal / ICT).
- Ensuring that good research data practices are recognised as part of university profiles and behaviours (Human Resources).
- Devising strategies to deal with the economic aspects of long-term data archiving (Finance).

The EXECUTIVE BOARD at TU Delft is responsible for:

- Providing strategic support for Data Stewardship at TU Delft, including the allocation of appropriate tasks and responsibilities to other service providers at TU Delft.
- Ensuring the creation of robust Data Policies by the faculties (within the context of this Policy Framework) and thereby ensuring TU Delft complies with academic needs, GDPR and funder requirements for research data management.
- Ensuring that the relevant stakeholders, particularly the support services, receive the necessary support to deliver relevant services.
- Ensuring that the above roles and responsibilities are reviewed and modified as necessary, as well as the effectiveness of the Policy Framework and the faculties' Data Policies.

³ Personal Research Data Workflow:



Faculty-specific roles and responsibilities

Roles and responsibilities for different stakeholders within the faculties are defined in the Faculty Policies. Nevertheless, there are some areas where specific commitments must be made.

In each Faculty Policy, PRINCIPAL INVESTIGATORS are responsible for:

- Ensuring that any agreements with external funding agencies, commercial companies or other third parties allow compliance with this policy.
- Ensuring that any personal research data is processed in accordance with the Personal Research Data Workflow.
- Budgeting for the costs of data management into financial project planning.
- Ensuring that every research project has a data management plan, which needs to be kept up to date and adhered to by all project members



 Ensuring that all members of the group plan for good data management from the outset of any research project and adhere to good data management practice throughout the project's lifecycle.

In each Faculty Policy, PHD SUPERVISORS are responsible for:

- Supporting PhD candidates in preparation of a written data management plan for managing research outputs within the first 12 months of their PhD. (For all PhD candidates who started on or after 1 January 2020).
- Ensuring that PhD candidates attend relevant training on data management.
- Ensuring that PhD candidates make all data and code underlying their completed PhD theses FAIR (Findable, Accessible, Interoperable and Reusable) by sharing in a research data repository, which guarantees that data will be available for at least 10 years from the end of the research project, unless there are valid reasons which make research data unsuitable for sharing. (For all PhDs who started on or after 1 January 2019).

In each Faculty Policy, ALL STAFF involved in research are responsible for:

- Ensuring that research data, code and any other materials needed to reproduce research findings are FAIR (Findable, Accessible, Interoperable and Reusable) by sharing in a research data repository, which guarantees that data will be available for at least 10 years from the end of the research project, unless there are valid reasons not to do so.
- Should data not be made available in a repository, ensuring that the relevant metadata is published in a suitable repository and any research publications resulting from the project have a statement explaining what additional datasets/materials exist; why access is restricted; who can use the data and under what circumstances.
- Understanding who owns research data resulting from their projects and what that implies in terms of data management, particularly sharing and publishing.
- Properly citing research data, in accordance with the FORCE11 Joint Declaration of Data Citation Principles4.
- Undertaking training in good data management, as required.

In each Faculty Policy, PHD CANDIDATES are responsible for:

- Developing a written data management plan for managing research outputs within the first 12 months of the PhD study (For PhD candidates who started on or after 1 January 2020).
- Attending the relevant training in data management.
- Ensuring that all data and code underlying completed PhD theses are FAIR (Findable, Accessible, Interoperable and Reusable) by sharing in a research data repository, which guarantees that data will be available for at least 10 years from the end of the research project, unless there are valid reasons which make research data unsuitable for sharing. (For all PhDs who started on or after 1 January 2019).

In each Faculty Policy, DATA STEWARDS are responsible for:

- Supporting the development, review and implementation of the faculty's data management policy.
- Creating awareness and explaining to researchers the added value of good data management.
- Assisting researchers in planning the collection, management, and publication of data in research projects and liaising with other service providers (such as Legal services, privacy team, ICT, Human Research Ethics Committee) as required.
- Helping researchers with writing data management plans and with budgeting for research data management costs in their grant applications.
- Developing and running training events tailored to researchers' needs.
- Sharing practice and experience within the Data Stewards team.
- Keeping abreast of the developments in the faculty's research area, investigating faculty-specific trends and issues, and gaining new skills and expertise in response to the demands of the research community.

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⁴ Data Citation Synthesis Group: Joint Declaration of Data Citation Principles. Martone M. (ed.) San Diego CA: FORCE11; 2014 https://doi.org/10.25490/a97f-egyk



In each Faculty Policy, FACULTY GRADUATE SCHOOLS are responsible for:

• Ensuring that PhD candidates are aware of training on research data management and provide appropriate credits for those who undertake such training.

In each Faculty Policy, HEADS OF DEPARTMENTS are responsible for:

- Ensuring awareness of good data management practices among all research staff within the department.
- Developing effective strategies for monitoring and review of data management practices.
- Encouraging individual research groups to adhere to discipline-specific guidelines on good data management and FAIR data (or to develop them if disciplinary standards do not exist).
- Working with relevant support staff to develop practical solutions for data management in their section..

In each Faculty Policy, FACULTY DEANS are responsible for:

- Ensuring that Data Stewards are embedded within faculties.
- Developing Faculty Policies for Research Data Management based on this Framework.
- Ensuring that all research staff are compliant with this policy.

Glossary

Data Stewardship is the oversight of the entire research data lifecycle, aiming to ensure that the right processes are put in place and that appropriate decisions are made to make research datasets Findable, Accessible, Interoperable and Reusable (FAIR).

FAIR Data Principles

Set of guiding principles to make data Findable, Accessible, Interoperable, and Reusable. FORCE11 is the organisation which defined these principles and which also provides an explanation of their exact meaning and implementation⁵.

Personal data

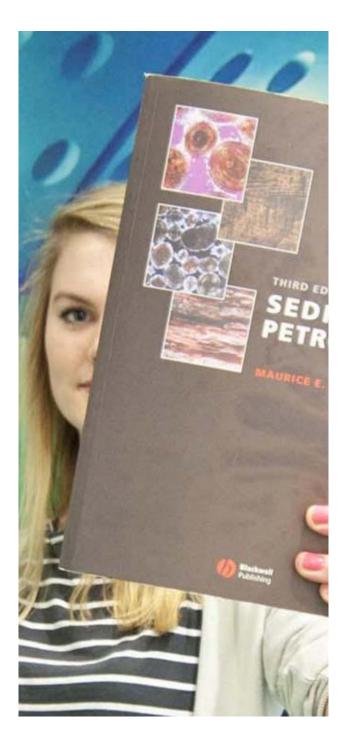
Personal data are described as all information about an identified or identifiable natural person (the data subject). More detailed definitions are available on TU Delft's privacy website⁶.

Principal Investigator

Researcher holding an independent grant or a research group or team leader, who is overseeing a research project.

Research data

Research data is the evidence that underpins answers to research questions, and which is necessary to validate research findings. Data can come in various forms and types, characteristic to specific disciplines of research. For example, data can be quantitative information or qualitative statements collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence. Research data also includes elements that make the data reusable or re-workable, e.g. documentation of the research process (e.g. in lab- or notebooks), or underlying software⁷.



⁵ https://www.force11.org/group/fairgroup/fairprinciples

⁶ https://www.tudelft.nl/en/privacy/gdprterminology/

⁷A dedicated policy for research software is now in preparation and once it is published, it will supersede this policy with regards to research software.

Appendix 1 -Roles and Responsibilities for Personal Research Data

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With contributions by: Alastair Dunning, Marta Teperek, Lotte Melenhorst, Marthe Uitterhoeve, Erik van Leeuwen, Hans Suijkerbuijk, Annelien Wehrmeijer, Marlou Veloo, faculty secretaries, members of the Steering Group GDPR and data stewards.

4 June 2020

1. Purpose and scope

This document presents a comprehensive view of roles and responsibilities of stakeholders involved in the Personal Research Data Workflow⁸. The workflow concerns data management planning, GDPR-compliance of the processing of personal data in research projects ('personal research data' or 'PRD') and screening by the Human Research Ethics Committee.

This is a working document that represents a comprehensive view of roles and responsibilities as per the date of this document. Roles and responsibilities of stakeholders involved in the Personal Research Data Workflow may change following developments in workflow views and activities. This document shall therefore be periodically reviewed and revised if necessary.

This document follows the approach of roles and responsibilities in the TU Delft Research Data Framework Policy and the Personal Research Data Workflow diagram⁹.

2. Roles and responsibilities¹⁰

Roles and responsibilities of DEPARTMENT HEADS (as line manager of the researcher):

- Responsible for departmental researchers' GDPR compliance in research projects;
- Ensure that all departmental researchers use the Personal Research Data Workflow;
- Ensure departmental researchers use DMPonline and other tools, resources, facilities and infrastructure made available for data management, GDPR-compliance and HREC assessment;
- Ensure departmental researchers use the support and advice of department heads, data stewards, the privacy team, the HREC and the Library, as necessary.

https://www.tudelft.nl/en/library/current-topics/research-data-management/r/manage/confidential-data/personal-data/

The diagram of the <u>Personal Research Data workflow v2</u>, addressing data management planning, ethics assessment, data protection impact assessments and GDPR-compliance.

¹⁰ Data management planning, GDPR-compliant processing of PRD and addressing ethics are aspects of academic integrity as set out in the TU Delft Vision on Integrity (<u>TU Delft Vision on Integrity</u>).

Roles and responsibilities of RESEARCHERS:

- Ensure that every project follows the Personal Research Data Workflow;
- Ensure that data in their projects is processed in accordance with their data management plan and the data management plan is updated following changes in the project;
- that data in their project is processed in a manner that is compliant with relevant policies and regulations, including o data management related policies such as the TU Delft Research Data Framework Policy and faculty policies,
 - o Privacy regulations and policies such as GDPR, the TU Delft privacy policy¹¹, faculty policies concerning the processing of personal data as well as the TU Delft Regulations on Human Trials¹².
- Ensure use is made of DMPonline and other tools, resources, facilities and infrastructure made available by TU Delft for data management, GDPR-compliance and HREC assessment, as appropriate;
- Perform a Data Protection Impact Assessment (DPIA) if the requirement to do so is indicated as a result of creating a data management plan in DMPonline, request assistance from the privacy team if necessary
- Ensure use is made of the support and advice of department heads, data stewards, the privacy team, the HREC and the Library, as necessary.

Roles and responsibilities of MASTER STUDENT SUPERVISORS:

- Ensure that data in a Master student's project is processed in a manner that is compliant with relevant policies and regulations, including
 - o data management policies such as the TU Delft Research Data Framework Policy
 - o privacy regulations and policies such as GDPR, the TU Delft privacy policy, faculty policies concerning the processing of personal data, and
 - o ethics policies such as the TU Delft Regulations on Human Trials
- Ensure that the Master student is trained in good data management, GDPR-compliance and research ethics

Roles and responsibilities of the DATA STEWARDS:

- · Assist researchers in completing a data management plan
- · Provide information and advice to researchers on the Personal Research Data Workflow
- Refer researchers to the privacy team, the HREC and the ICT department, as necessary

Note: The data steward is not responsible for the completion and/or accuracy of data management plans, nor for GDPR-compliance. That responsibility rests with the researcher. The data steward does not approve but reviews a data management plan. Their review of a data management plan does therefore not mean approval, but provides information and advice to the researcher.

Roles and responsibilities of the FACULTY SECRETARIES (as line manager of the data stewards)

• Ensure data stewards have the capability and the time to adequately support researchers in the use of the Personal Research Data Workflow and in dealing with the GDPR and/or HREC aspects in their data management plans - and to liaise with, or refer the researchers to, the privacy team and/or the HREC, as necessary.

¹¹ The current TU Delft policy, the 'Handreiking', is under revision and will be renamed the TU Delft privacy policy

¹² https://d1rkab7tlqy5f1.cloudfront.net/TUDelft/Over_TU_Delft/Strategie/Integriteitsbeleid/Research%20ethics/HREC-Articles_of_Association.pdf

¹³ The administration and management of the university is structured according to the principle of integral management (article 6 Bestuurs- en Beheersreglement (BBR)). Article 2.1k BBR defines integral management as the responsibility (here: of the dean) for achieving the objectives of the organizational unit

Roles and responsibilities of the DEAN (integral management¹³)

- Responsible for a faculty research data policy being in place, defining effective practices for orking with research data at the faculty, and defining data management roles and responsibilities of the different stakeholders within the faculty
- Responsible that department heads and faculty secretaries are supported in their responsibilities towards, respectively, researchers and data stewards
- Ensure that departmental researchers are able to be GDPR compliant in research projects
- Ensure that departmental researchers use DMPonline
- Ensure the faculty emphasises the importance of good data management, GDPR-compliance and HREC assessment:
- Ensure that department heads are able to perform their roles and meet their responsibilities concerning the Personal Research Data Workflow.

Roles and responsibilities of the DIRECTOR OF ICT&FM (ICT):

- As described in the TU Delft Privacy Policy:
 - o jointly responsible with the Director of Legal Services for GDPR-compliance
 - o in line with the principles and areas of attention applicable to ICT: the progress of the implementation of privacy processes and the implementation and operation of policy.

Roles and responsibilities of the CHIEF INFORMATION SECURITY OFFICER:

- · As described in the TU Delft privacy Policy
- As described for the ICT department in the TU Delft Research Data Framework policy
- Ensure the Privacy Officers have enough capacity to support researchers on GDPR-compliance.

Roles and responsibilities of the TU DELFT PRIVACY TEAM (CISO, Data Protection Officer and Privacy Officers):

- Provide information and advice to researchers and other stakeholders on GDPR-requirements, creating and increasing awareness about GDPR and research data
- · Maintain the processing register for personal research data
- Determine which types of personal data processing activities require a Data Protection Impact Assessment (DPIA)
- · Assist researchers in their performance of a DPIA
- Liaise with the persons responsible for other internal and external communications on personal research data processing (HREC/Integrity, research data management) on the Personal Research Data Workflow, data management and HREC-related information and provide content, as necessary
- Responsible for providing comprehensive, consistent and up-to-date information on GDPR to relevant persons within TU Delft, discussing the content with stakeholders on a regular basis.

Roles and responsibilities of the DIRECTOR OF LEGAL SERVICES:

- As described in the TU Delft Privacy Policy:
 - o jointly responsible with the Director of ICT for GDPR-compliance
 - o in line with the principles and areas of attention applicable to LS: GDPR-compliance risks, legal aspects and (DPO) monitoring.

Roles and responsibilities of the HEAD OF THE LIBRARY'S RESEARCH DATA SERVICES:

- · As described for The Library in the TU Delft Research Data Framework policy
- Responsible for the oversight of the Personal Research Data Workflow, the DMPonline tool, its maintenance and further development
- · Work with faculties to provide advice on good use of the Personal Research Data Workflow and its tool DMPonline
- Ensure appropriate communication about the Personal Research Data Workflow
- Liaise with the persons responsible for other webpages (privacy team, HREC/Integrity) on the Personal Research Data Workflow, GDPR- and HREC-related information and provide content, as necessary
- Ensure the periodic review and revision, if necessary, of this document, the TU Delft Research Data Framework policy and the Personal Research Data Workflow.

Roles and responsibilities of the **EXECUTIVE BOARD**:

- Ultimately, the Executive Board is jointly responsible and accountable within TU Delft for GDPR-compliance
- Within that framework of joint responsibility, the Vice President Operations is portfolio holder GDPR and as such o first responsible for GDPR-compliance within TU Delft
 - o ensures and facilitates that GDPR-compliance is encouraged and supported within TU Delft
 - o ensures policies are in place, defining roles and responsibilities for different stakeholders within TU Delft including aspects on GDPR-compliance
- Within that framework of joint responsibility, the Vice Rector Magnificus is portfolio holder Open Science (including data policy) and as such
 - o first responsible for research data management within TU Delft
 - o ensures and facilitates compliance with the Personal Research Data Workflow.

Roles and responsibilities of the chair of the HUMAN RESEARCH ETHICS COMMITTEE:

- To assess ethics implications in research by screening research projects that involve human subjects, to engage with data stewards and the privacy team to work towards a coherent outreach to researchers concerning data management planning, GDPR-compliance and ethics implications.
- Liaise with the persons responsible for other webpages (privacy team, research data management) on the Personal Research Data Workflow, GDPR- and HREC-related information and provide content as necessary.

Credits

This document was originally written by (in alphabetical order) Alastair Dunning, Annemiek van der Kuil, Madeleine de Smaele, Marta Teperek and Anke Versteeg. Additional informationand feedback was supplied by Data Stewards (Heather Andrews, Jasper van Dijck, Nicolas Dintzner, Robbert Eggermont, Kees den Heijer, Santosh Ilamparuthi, Munire van der Kruyk, Shalini Kurapati, Jeff Love, Esther Plomp, Yasemin Turkyilmaz-van der Velden, Yan Wang) and Ingeborg Ahlers, Jasmin Bohmer, Maria Cruz and Paula Martinez Lavanchy.

It was updated after the discussions and interviews with researchers and senior administrative staff across the university. All eight faculties provided their feedback on the policy.

Contributions have also been made by the Support Team and other Members of the Open Science Board.

- Julie Beardsell (R&D, Innovation)
- · Rianne van den Bogerd (Legal Services)
- Lolke Boonstra (ICT)
- Susan Branchett (ICT Innovation)
- Chantal Brokerhof (formerly Open Science Programme)
- Joost Groot Kormelink (Human Research Ethics Committee)
- Rene Haverslag (Strategic Development)
- Lotte Melenhorst (Strategic Development)
- · Adriaan van Noord (Valorisation Center)
- Rob Oosterling (ICT)
- Mark Schenk (ICT Innovation)
- Wilma van Wezenbeek (Library)
- Debby van Vondelen (Media Solutions)

The first version of this document was also reviewed by the Groepsraad (Deans of Faculties) on 9 April 2018 and the Team of Directors (Deans of Faculties) on 15 May 2018 before being sent to the Executive Board for final approval on 26 June 2018. The Executive Board has approved the final version of this current revised policy on 23 June 2020.

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