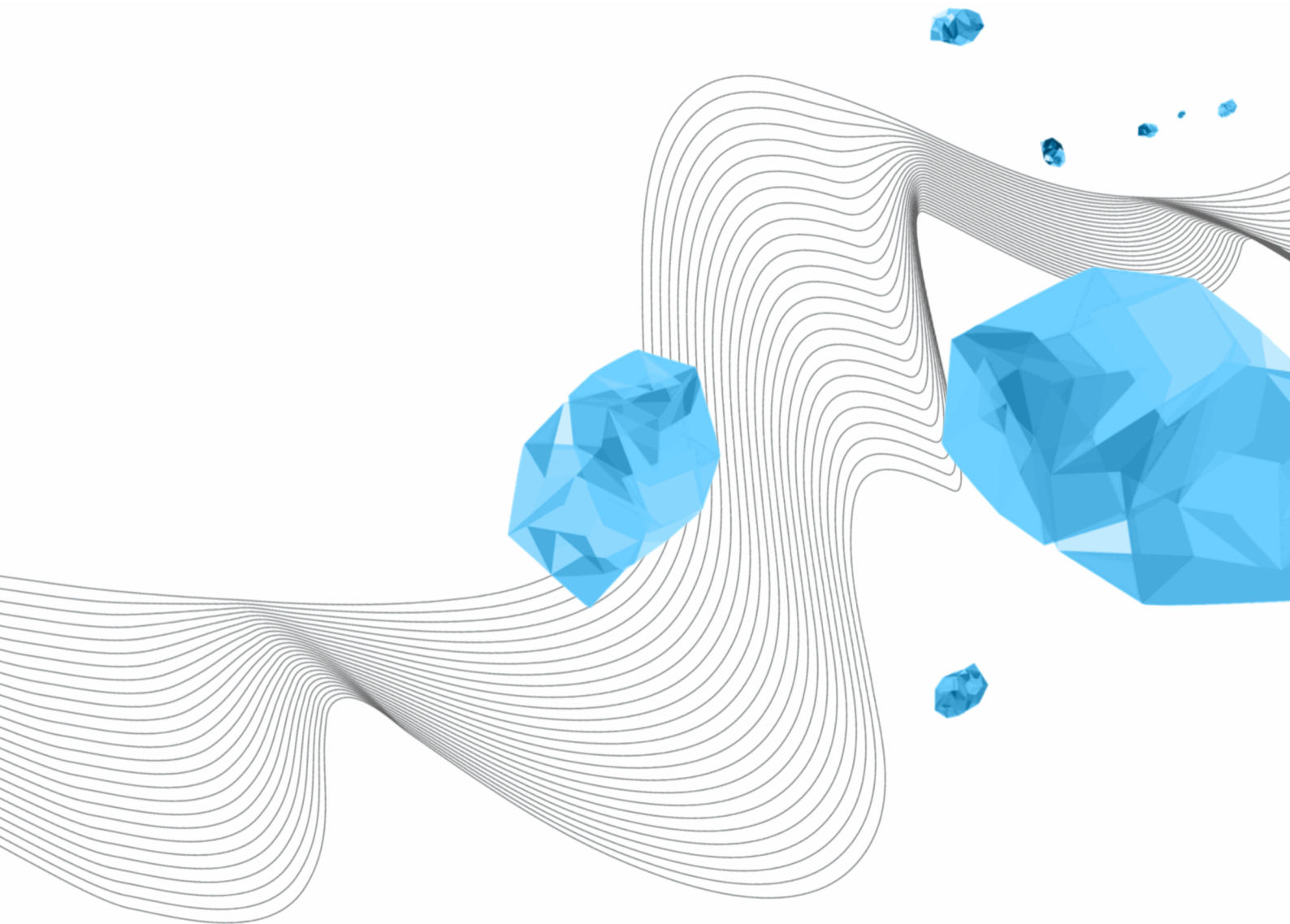


RESEARCH DATA MANAGEMENT POLICY  
DEPARTMENT OF THERMAL AND FLUID  
ENGINEERING\_V1.0

Reference: Thermal and Fluid Engineering Department

Confirmed by Prof. dr. Stefan Luding, Prof. dr. Gerrit Brem, Prof. dr. Kees Venner, and dr.  
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## 1 INTRODUCTION

Regulations regarding research data management (RDM) are specified at various levels: UT level, faculty level, department level, research chair level, and individual researcher level. This document is intended as an addendum to the ET faculty RDM regulations (ET/A-20.19061, 21-04-2020), with the purpose of defining department-level guidelines or regulations for the department of Thermal and Fluid Engineering (TFE). All content in this document are **TFE department-specific**. All content from higher-level regulations applies to this document, unless specifically indicated otherwise.

## 2 DEPARTMENT-SPECIFIC ROLES AND RESPONSIBILITIES

General roles and responsibilities are described in the UT policy and ET faculty RDM regulations. Within TFE the following people can assist you with data management:

- Wouter den Breeijen: NFS clusters (software, hardware, access control, ...)
- Walter Lette: Department administrator, Windows & P-drive control access
- Stefan Luding and Miguel Muñoz Rojo: contact persons for general questions related to research data management within the department
- All PhD candidates are obliged to follow the TGS course Data Management Bootcamp: (<https://www.utwente.nl/en/ctd/courses/1000227/data-management-bootcamp/>). Every employee can find most of the contents of the course on Canvas: <https://canvas.utwente.nl/courses/2167>.

You can contact the secretaries for additional information:

- Thermal Engng.: Sally Kloost Zimmerman van Woesik (s.y.kloost-zimmermanvanwoesik@utwente.nl)
- Engineering Fluid Dynamics: Susan Janse Godschalk (s.k.godschalk@utwente.nl)
- Multiscale Mechanics: Sylvia Hodes-Laarhuis (sylvia.laarhuis@utwente.nl)

## 3 DATA MANAGEMENT PLAN (DMP)

General rules regarding DMPs are described in the UT policy and ET faculty RDM regulations.

### DATA MANAGEMENT PLAN | TFE WORKING RULE

DMPs of the TFE department are stored in <a href="https://webdrive.utwente.nl/Org/ET">https://webdrive.utwente.nl/Org/ET</a> (see for example: <a href="https://ad.utwente.nl/et/tfe/DMPs">ad.utwente.nl/et/tfe/DMPs</a> ) (P-drive), accessible to the head of the research group and the individual researchers.
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A DMP must refer to the latest TFE department document, or lower-level regulations (e.g. chair level) or with external policies (like funding institutions) with which it has to comply.
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A DMP, as well as the actual data management resulting from it, must be updated if the DMP would no longer comply with regulations due to policy changes on any level.
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## 4 PRIVACY REGULATIONS

General rules regarding privacy-sensitive data are described in the UT policy and ET faculty RDM regulations.

### DATA PRIVACY REGULATIONS | TFE WORKING RULE

Informed consent forms are project specific. These forms are provided by the grant agency and it is the obligation of the researcher to fill them accurately. After finishing the project, the original forms can be archived at the ET/UT archive. These forms are only available to the researchers who are involved in the experiments, principal investigator and head of the department.
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Files that link participants' names with subject identification numbers/codes should be stored in a separate folder (not the same folder as the experimental data). This folder is only accessible to the researchers who are involved in the experiments, principal investigator and head of the department.
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## 5 DATA STORAGE AND TRANSFER

General rules regarding data storage and transfer are described in the UT policy and ET faculty RDM regulations.

### DATA STORAGE | TFE WORKING RULE

Depending on the type of project each department member has to select at least one of the following options:

- Preferred option: P-drive (<https://webdrive.utwente.nl/Org/ET> => UT Group/Project drive) with the folder structure described in the Appendix (Section 10)
- NFS cluster
- Surfdrive
- Google drive (G Suite) – note that this storage method might be conflictive within the framework of some national and international projects -

More information on these storage options can be found in a decision tool for UT employees:  
<https://webapps.utwente.nl/dmp/fr/RDM/Storage-Decision-Tree/new>.

If none of these preferred storage options are suitable, please choose another option from the decision tool.  
 Please ensure that all data is always shared with at least one other person.

In case of portable devices (external hard drive, usb stick), data storage is intended as short term as possible and backed up regularly on non-portable storage. If portable devices have to be used for confidential data, devices have to be encrypted. (Confidential) data on portable devices is deleted as soon as possible and no later than ending the research task for which the data is needed.

Students who work on research assignments (e.g. bachelor/master assignment) must store data on – and automatically synchronized with – Google Drive. The folder must be under administration of the group and is provided to the student through the group secretary (see section 2) at the beginning of an assignment. The folder must also be shared with the head of the department and the daily supervisor (both getting 'Manager rights'). To this purpose, employees have to request a UT google account once through: <https://utsm.utwente.nl/case/PSSUK/PSS038?2>.

**Never use personal Google accounts.** Agreements between the UT and google (e.g. regarding GDPR) do no longer apply when personal google accounts are used.

Secretaries should keep all folders under 'Shared Drives' and not 'My Drive'. When the secretary leaves the UT, 'Manager rights' should be transferred to another secretary's Google Drive account.

## 6 DATA DOCUMENTATION

General rules regarding data documentation are described in the UT policy and ET faculty RDM regulations.

### DATA DOCUMENTATION | TFE WORKING RULE

When storing/archiving project data, the highest level directory will contain a file (preferably .txt or .pdf) that describes the underlying directory structure and naming convention. It includes a section on the original author, ownership and confidentiality of the data.

Documentation should be added to understand experimental procedures and simulations, and to be able to re-use the data (e.g. used devices, experimental/simulation settings, measurement units). All necessary documentation is added and saved together with the experimental data.

## 7 DATA SHARING

General rules regarding data sharing are described in the UT policy and ET faculty RDM regulations.

### DATA SHARING | TFE WORKING RULE

Data sharing with UT students/employees and external (non-UT) parties should be done using one of the options that are described under item 5 *Data storage and transfer*.

For the P-drive, a Guest account (X-account) needs to be requested for externals through

<https://utsm.utwente.nl/case/PSSUK/PSS005?2>.

After this, externals can get access to folders on the P-drive when they use this Guest account.

**SURFfilesender** should be used to send digital data to others, or receive data from others. The exchange must include documentation and guiding material (e.g. title, explanation about experiments). For sensitive data (e.g. privacy, commercial interests), the encrypted option of SURFfilesender must be used. The key to decrypt these files should be sent separately.

## 8 DATA ARCHIVING

General rules regarding data archiving are described in the UT policy and ET faculty RDM regulations.

### DATA ARCHIVING | TFE WORKING RULE

After the research project, all data must be moved to the P-drive (TFE groups) or NFS cluster (Note that Surfdrive or Google drive accounts are personal and will be deleted when an employee leaves). The P-drive and NFS cluster have a dedicated folder (TFE\Research\%project name% => For daily use backup is made regularly and it is mirrored to backup system // TFE\Rdata\%project name% => no Mirroring and once a day a backup) for finished projects. Within this folder, data should be saved in a specific folder where the folder name includes the name of the researcher.

In addition, all research data related to an article is published in the 4TU.ResearchData repository, unless this is prohibited by other legal and contractual regulations. If needed, datasets can be embargoed or made 'confidential' (i.e. only allowing restricted access).

Information on how to use 4TU data repository can be found in the following link: <https://data.4tu.nl/info/en/use/getting-started/>

Archived data may not be altered, only appended to. Access management should be set such that files cannot be modified once placed in archive. If modifications are required, a new version should be created.

By default, the archived data will never be deleted unless project members require this or in case of space shortage, in which case the project leader to which this data belongs will be notified in advance.

## 9 DATA REGISTRATION

General rules regarding privacy-sensitive data are described in the UT policy and ET faculty RDM regulations. No additional rules apply for TFE.

## 10 APPENDIX: TFE DATA STORAGE STRUCTURE, PRICES AND OTHER GENERAL INFORMATION

### Structure of data storage:

The next structure has been created at ad.utwente.nl\org (P drive): ET\TFE

Create a folder with the **name of your project** to store all the data related with your project. Within this folder, we recommend that you define for your convenience the following structure:

- Admin (Administrative files) {High quality Storage (HQS)}
- Fin (financial files) {HQS}
- Lab (manuals, set-ups & information about the lab) {HQS}
- Rdata (raw & polished data-permanent data) {Normal quality Storage (NQS)}
- Research (research data & material- frequent modifications) {HQS}
- Sec (Secretary files) {HQS}

A suggestion for the Research subfolders {HQS} is:

- \Algorithms {HQS}
- \MDP (Measurement Data Polished) {HQS}
- \Simulations {HQS}

A suggestion for the Rdata subfolders {NQS} is:

- Courses {NQS}
- \Literature {NQS}
  - Books
  - Thesis
  - Articles
  - Misc
  - Literature review
- \MDR (Measurement Data Raw) {NQS}
- \Paper\%Paper% {NQS}
- \PR Photo Video {NQS}
- \Thesis {NQS}

Contact Peter Lasker (ICT account manager) for more details about HQS and NQS conditions.

### Prices of data storage

You can find prices of data storage on: <https://selfservice.utwente.nl/tariffs/>

### Rights:

Currently the Department Administrator does not give rights on file level or very deep into a tree structure, but LISA can always assist if necessary. The rights are given preferably to groups who are kept up by the secretaries.

Generally, the rights are distributed as follows:

`ad.utwente.nl\org\% Department% \ %subject% \ %project% \ %blabla% \ %blabla%`

- Is given by LISA we cannot change this.
- The rights are controlled by LISA.
- Is made by LISA on our request.
- The rights are controlled by Department Administrator.
- Is made by Department Administrator.
- The rights are controlled by Department Administrator.
- Made by the user(s)
- The rights are inherited of the %project%.

### Confidentiality

The stored data can be protected according to confidentiality aspects. After communication to one of the RDM responsables (Section 2), different mechanisms (folders with passwords, encrypted data, etc) can be created to fulfil the needs of the project.