5 Things to check when reviewing Data Management Plans (DMPs) - Guidance for supervisors

PhD students will now be submitting a Data Management Plan (DMP) as part of their Go/No-Go meeting. Below are some considerations for evaluating DMPs.

Tip: If you have any questions or would like to seek further advice, contact your faculty data steward in the first place.

1. Was a data steward consulted?

You are not obliged to ask the faculty data steward for support on a DMP, but they are data management experts who can provide you with valuable input on the DMP.

Tip: If your faculty data steward hasn't yet been consulted on the DMP, ask your student to reach out to the data steward.

2. Are you happy with how the data/code is stored?

In short: is the student using good practices in collecting and storing their data?

TU Delft offers two main solutions for data storage: Project Drive (for research data) and GitLab (for code management). Both solutions are backed up and maintained by TU Delft, so you don’t have to worry about data being accidentally lost.

Some researchers also use SURFdrive, but it is not recommended for long-term storage of research data. SURFdrive is a personal cloud storage space - which means that once the person leaves, you, as their supervisor, might lose access to their data.

Tip: Check if you can easily find and get access to your student’s data
3. Is the data properly documented?

Do you think that the data and code your student is working on are properly documented? For example, can you easily figure out which file is what? If you open some of the files, are they properly labelled and described?

Crucially, what if your student left TU Delft tomorrow? Would you be able to make sense of their data and how their research was done?

**Tip:** Browse through the data/code of your student and see if they make sense to you.

4. Is your student working with confidential data?

In short: does your student have a good overview of the data they handle and recommended best practices?

Confidential data can contain:

- **personal information** which can allow the identification of living individuals
- **commercially-confidential information** (e.g. something you might want to patent, or data belonging to a third party)
- Information related to **national security**, export control regulations etc.

If your student is working with any type of confidential data, the data needs to be securely stored and that only authorised people have access to the data. In addition, if the project involves working with personal research data, it might be necessary to get an ethical approval from the Human Research Ethics Committee, or perform a Data Protection Impact Assessment.

In principle, if your student is working with any type of confidential data, they will most likely need to use data storage recommended by TU Delft (Project Drive, GitLab).

In addition, for some types of confidential data, especially if there is a risk of accidental data release (e.g. data temporarily stored on laptops or USB drives), data might have to be encrypted.

**Tip:** When accessing your student’s data, check who else has access rights to that data. Browse through the data: what would happen if the data was accidentally released? Does it require any extra security measures, such as encryption?
5. Is there a clear strategy for data sharing?

Research data is the evidence underlying research findings, and therefore should be shared as broadly as possible. TU Delft Research Data Framework Policy requires all PhD students who started on or after 1 January 2019 to deposit research data (and code) supporting their theses before they can graduate.

- Did you already have a discussion about this with your student?
- Did you agree what data (and code), when and how will be shared?
- Will there be any difficulties with data sharing (perhaps not all data is suitable for sharing)?
- What licence will be the most suitable for the data (and code)?

In principle, for most research done at TU Delft, it is suitable to make the data and code underpinning research findings available in a data repository. Typically, this is done no later than when publishing the related papers, theses or reports. TU Delft has a dedicated data repository, 4TU.Centre for Research Data, where all TU Delft researchers can deposit up to 1TB of data per year (per researcher) free of charge. Discipline specific repositories might also be suitable (the faculty data steward can advise).

In addition, if you and your student anticipate any problems with data sharing you can ask your faculty data steward for advice.

**Tip:** When deciding what data (and code) to share, think about the following questions:

- What data (and code) are necessary to validate research findings?
- What data (and code) can’t be re-generated? (e.g. weather observations)?