Plan Overview

A Data Management Plan created using DMPonline

Title: Sustainable Packaging for Surgery kit used for Vitrectomy

Creator: Arundhati Malkhede

Affiliation: Delft University of Technology

Template: TU Delft Data Management Plan template (2025)

Project abstract:

The Healthcare sector systems generate a substantial amount of waste, with medical packaging constituting a significant portion of it. In its current state, the EVA Nexus kit comprises of several surgical instruments and components, assembled in a single packaged set. The goal will be to focus on optimizing this entire package through Circular Product Design, while meeting the sterilization and regulatory factors for medical products. The key opportunities include reducing the material used by making the entire product more compact and tailor it to the included components. Material Analysis can identify areas where reusable or biobased materials can be introduced..

ID: 201832

Start date: 04-02-2026

End date: 31-07-2026

Last modified: 04-05-2026

Sustainable Packaging for Surgery kit used for Vitrectomy

0. Administrative questions

1. Provide the name of the data management support staff consulted during the preparation of this plan and the date of consultation. Please also mention if you consulted any other support staff.

Question not answered.

2. Is TU Delft the lead institution for this project?

- Yes, the only institution involved

Yes. This project is conducted as a Master's graduation thesis within TU Delft's Industrial Design Engineering faculty.

I. Data/code description and collection or re-use

3. Provide a general description of the types of data/code you will be working with, including any re-used data/code.

Type of data/code	**File format(s)**	**How will data/code be collected/generated?** *For re-used data/code: what are the sources and terms of use?*	**Purpose of processing**	**Storage location**	**Who will have access to the data/code?**
Written notes for Qualitative Interview	.cvs, .docs	Interview	Information on Material Studies/Regulatory information.	TUDelft data and personal laptop	Responsible Supervisor
Written notes for Observational Studies	.docs	Observational studies	Product Journey Analysis	TUDelft one drive and personal laptop	Responsible Supervisor
Informed consent forms	pdf	Informed consent forms signed digitally.	To obtain and document informed consent.	Project Data Storage	Responsible Supervisor

II. Storage and backup during the research process

4. How much data/code storage will you require during the project lifetime?

- < 250 GB

5. Where will the data/code be stored and backed-up during the project lifetime? (Select all that apply.)

- Project Data Storage (U:) drive at TU Delft
- TU Delft OneDrive

III. Data/code documentation

6. What documentation will accompany data/code? (Select all that apply.)

- Procedure – A description of data processing procedure(s) (such as laboratory setup, simulation workflows).
- Data – Methodology of data collection

IV. Legal and ethical requirements, code of conducts

7. Does your research involve human subjects or third-party datasets collected from human participants?

If you are working with a human subject(s), you will need to obtain the HREC approval for your research project.

- Yes – please provide details in the additional information box below

I will be collecting data from Interviews, observational studies and usability tests, for my masters thesis.

8. Will you work with personal data? (This is information about an identified or identifiable natural person, either for research or project administration purposes.)

- No

9. Will you work with any other types of confidential or classified data or code as listed below? (Select all that apply and provide additional details below.)

If you are not sure which option to select, ask your Faculty Data Steward for advice.

- No, I will not work with any other types of confidential or classified data/code

10. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your Faculty Contract Manager when answering this question.

The intellectual property rights are framed by a graduation agreement between Delft University of Technology and Arundhati Malkhede.

11. Which personal data or data from human participants do you work with? (Select all that apply.)

- Job title and/or employer
- Photographs

Interview data may contain roles, institutional affiliations of participants. Photographic data from the OR may include images of clinical staff.

12. Please list the categories of data subjects and their geographical location.

The participants of the interviews are professional in the domain of Opthalmology and Sustainability. All participants are located in the European Union (NL, DE).

V. Data sharing and long term preservation

26. What data/code will be publicly shared?

Please provide a list of data/code you are going to share under 'Additional Information'.

- All data/code produced in the project

28. How will you share your research data/code?

Select all that apply and provide additional details below.

- I am a Bachelor's/Master's student at TU Delft and I will share the data/code in the body and/or appendices of my thesis/report in the TU Delft Repository

30. How much of your data/code will be shared in a research data repository?

- < 100 GB

31. When will the data/code be shared?

- At the end of the research project

32. Under what licence(s) will the data/code be released?

- Other – please explain below

Copyrighted thesis

VI. Data management responsibilities and resources

33. If you leave TU Delft (or are unavailable), who is going to be responsible for the data/code resulting from this project?

Jan-Carel Diehl, Responsible Supervisor, J.C.Diehl@tudelft.nl

34. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Masters students for graduation thesis would get 1TB of data/code per researcher per year free of charge for all TU Delft researchers. We do not expect to exceed this and therefore there are no additional costs of long term preservation.

35. Which faculty do you belong to?

- Faculty of Industrial Design Engineering (IDE)