Data Stewardship at TU Delft

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- Data Steward @TU Delft, Faculty of Applied Sciences, NL

- Open Research Ambassador & Secretary General @IsoArcH

- Contributor @The Turing Way

- Mentor @Open Life Science

- Team member @Open Research Calendar

- Co-chair of a Research Data Alliance Group on Physical Samples
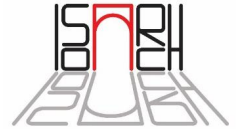
- Data Stewardship from the TU Delft perspective
  - What type of Data Stewardship?
- Challenges of Data Stewardship at the university in the medium and long term
  - Lessons learned

Data Stewardship from the TU Delft perspective

Data Stewards @TU Delft

- Each faculty has their [own Data Steward](https://doi.org/10.5281/zenodo.7015283)!

Data Stewardship at TU Delft
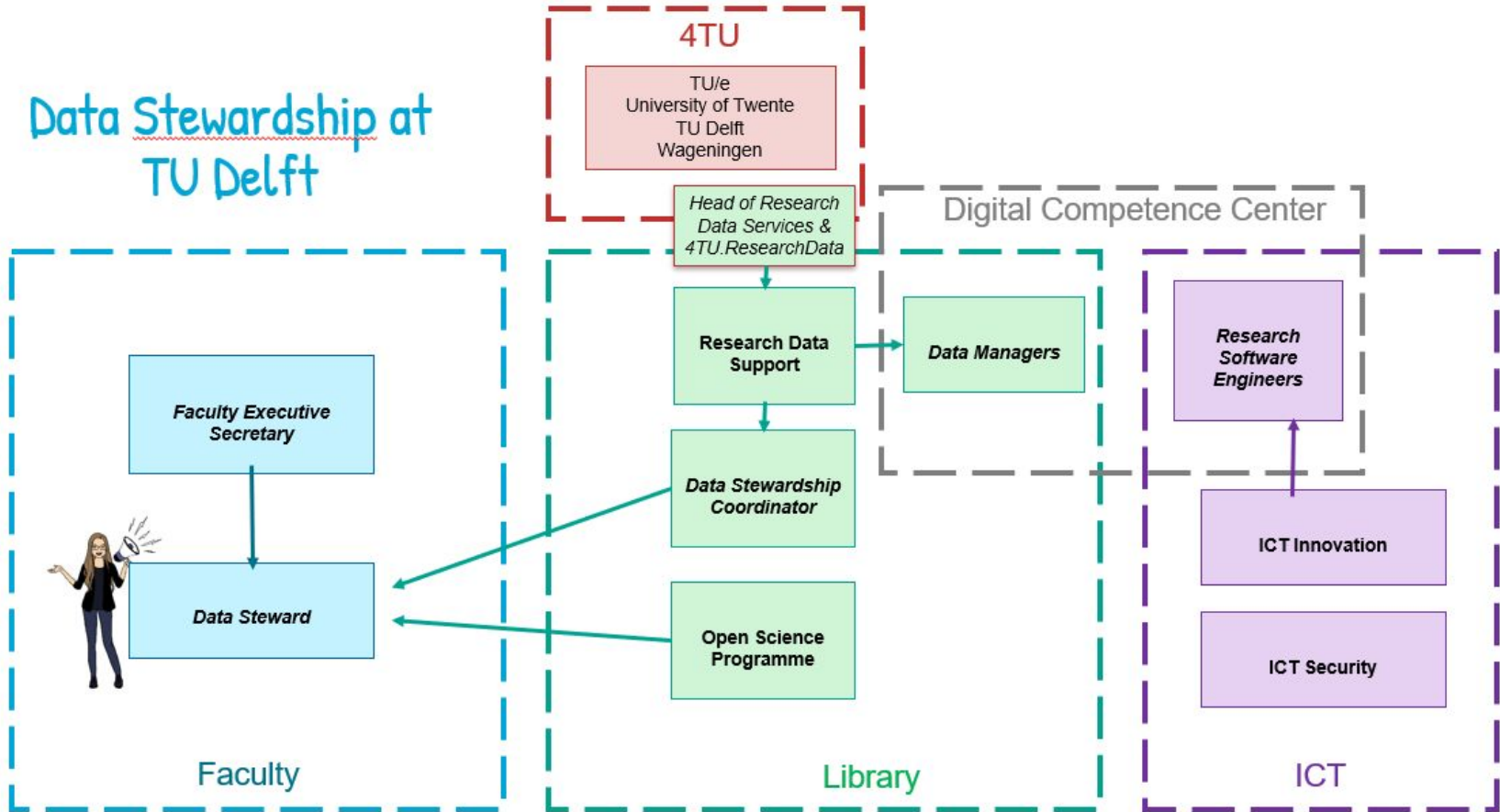
RDM support @Library

- [Website](#)
- Electronic Lab Notebooks
- Data repository: [4TU.ResearchData](#)
- Training
- Communication
- Events
- (inter)national developments

TU**Delft**

Digital Competence Center (since 2020)

- The DCC support team can [help you organize your research workflow](#)
- Project based data & software support

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Data Stewards @ TU Delft

- **First contact point** for all data/software/open science questions (advice!)
- **Policy** development
- **Advocacy**
- **Training**
- **Network**: referral to other staff as needed
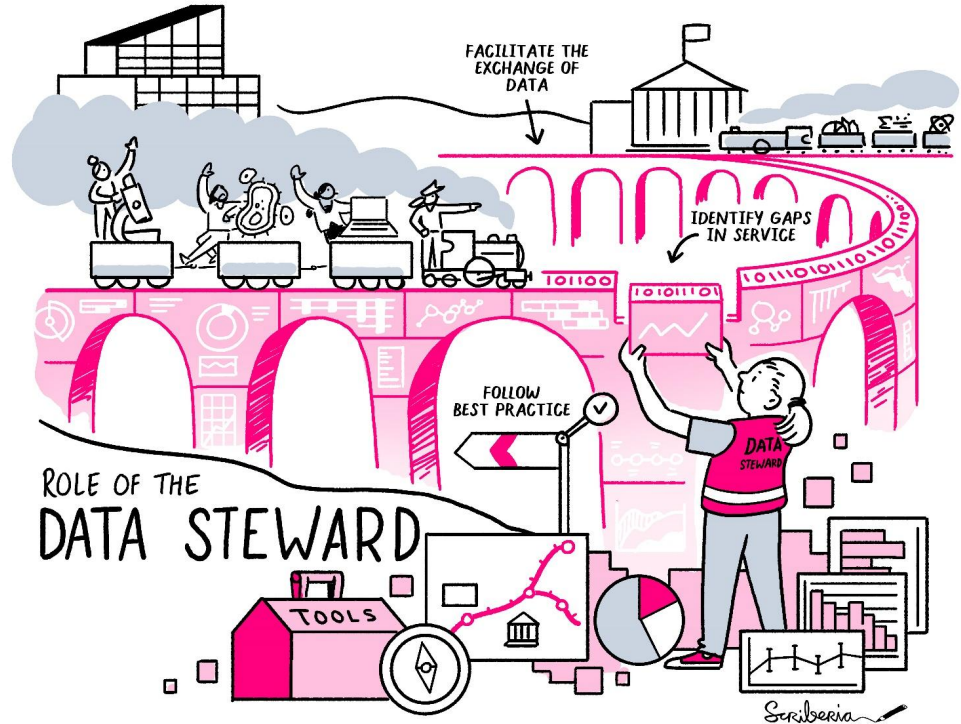
The Turing Way project illustration by Scriberia. Used under a CC-BY 4.0 licence. DOI: 10.5281/zenodo.3332807.

Location

Library/ICT/
Central

Department/
Research Group

Institute/Faculty

Tasks

Policy, Strategy
and Coordination

Embedded and
Operational

Generic support
and Advice
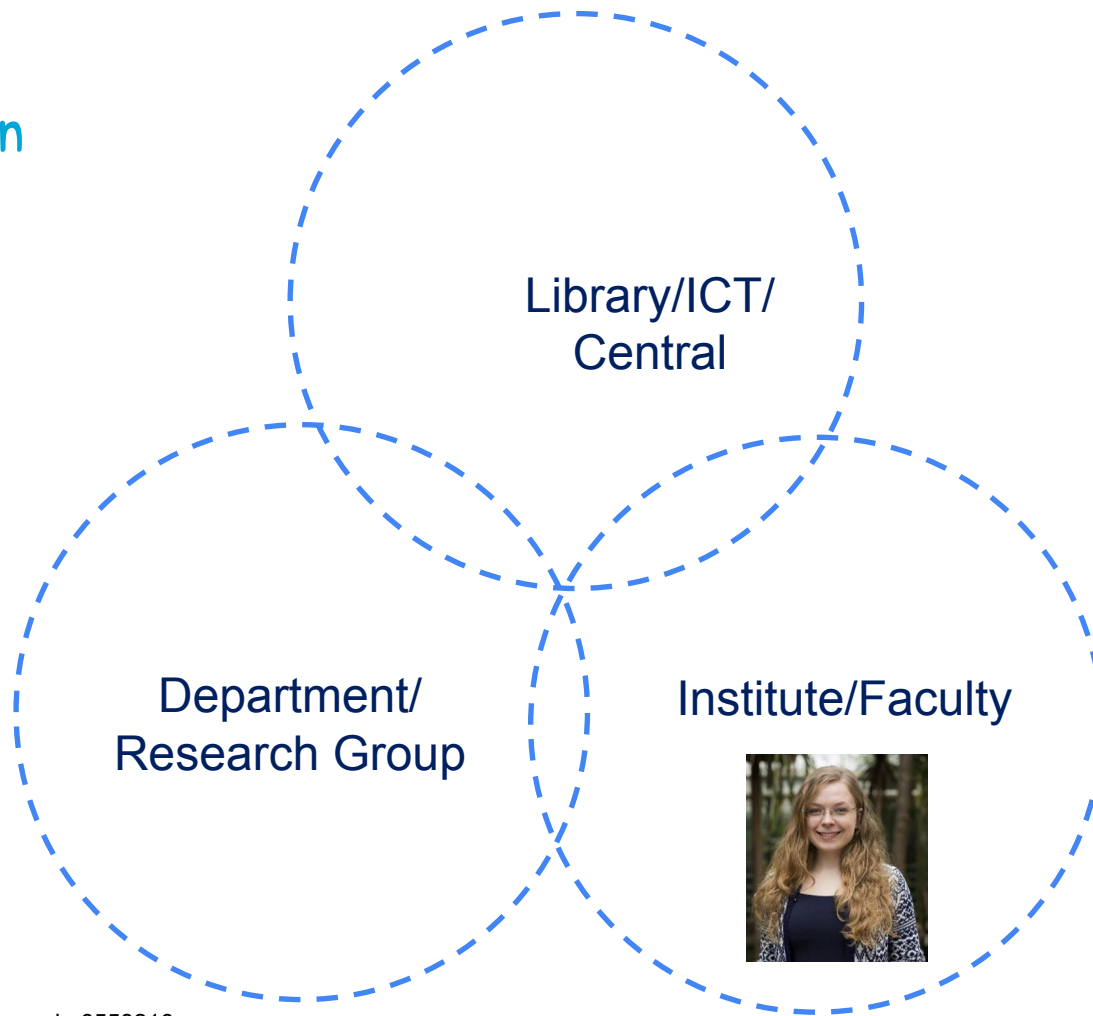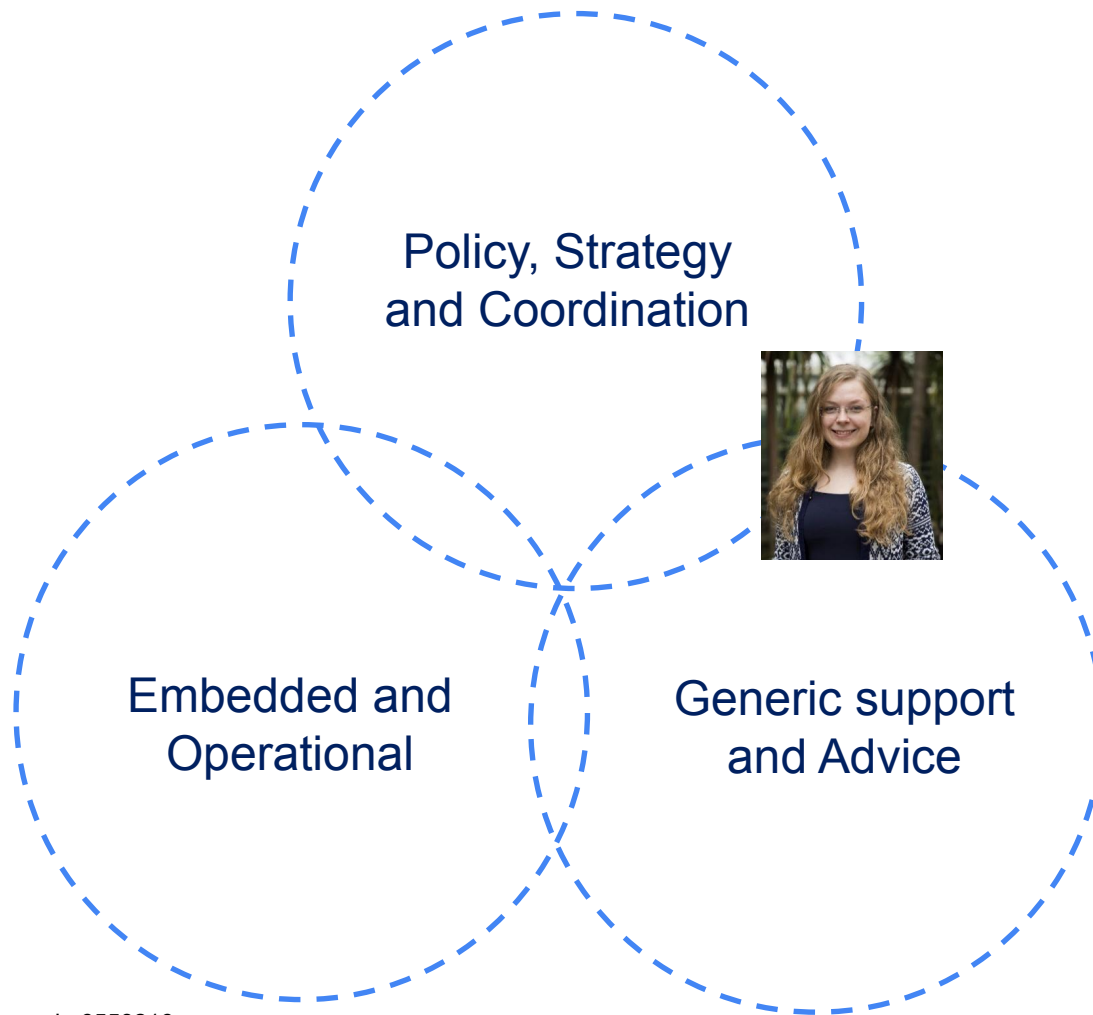
*LCRDM data
stewardship
task areas*
[10.5281/zenod
o.4320504](#)

Training @TU Delft

- **Software/Data Carpentry workshops** (Library, Data Stewards, Digital Competence Center, ICT Innovation, Researchers)

  - see Plomp et al. 2022 for more info

- **Research Data Management 101 course** (Library)

  - Materials openly available on Zenodo and web

- Working with personal research data (in development – Library, Data Stewards)

- On-demand training (Data Stewards, Digital Competence Center, Researchers)

- **Essentials for Data Support** (4TU.ResearchData/Library)

- **Open Science MOOC** (Library, Researchers)

- **Open Life Science** (Data Stewards & Digital Competence Center)

  - All talks are available on YouTube

  - Contact team@openlifesci.org

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https://doi.org/10.5281/zenodo.6558216

Research Data Management Policy – TU Delft

2018, 2020

2020-2022

Faculty Policies
- Roles and responsibilities at the faculty level
- Reflecting disciplinary differences

Available on the library website

https://doi.org/10.5281/zenodo.6558216

Research Data Management Policy – Faculty of Applied Sciences

- **All individuals involved in research** are responsible for:
    - Ensuring that research data, code and any other materials needed to reproduce research findings are appropriately documented, **stored and shared in a research data repository** in accordance with the **FAIR principles**.
- **PhD candidates** are responsible for:
    - Developing a written **data management plan (DMP)** for managing research outputs within the first 12 months of the PhD study.
    - Ensuring that all data and code underlying completed PhD theses are appropriately documented and accessible for at least 10 years from the end of the research project, in accordance with the FAIR principles - **before they defend their thesis**.

Faculty of
Applied Sciences
Research Data
Management Policy

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JANUARI 2020

Key competencies of a Data Steward

assertiveness

empathy

training skills

adaptability

communication

organisational skills

research experience

persuasion

basic programming/it skills

RDM knowledge

subject knowledge

understanding researchers

More information about Data Steward competencies:
https://edison-project.eu/data-science-competence-framework-cf-ds/

Key competencies of a Data Steward

Anja Gerber ☀️
@anja_g_werder

Ich glaube, mein halber Job besteht aus Kommunikation, aber mir macht das sehr viel Spaß. :)
#FDM #Datenmanagement
Tweet vertalen

10:14 p.m. · 16 aug. 2022 · Twitter Web App

https://twitter.com/anja_g_werder/status/1559634700594995206

Challenges of Data Stewardship & Lessons Learned

Data Stewardship at TU Delft
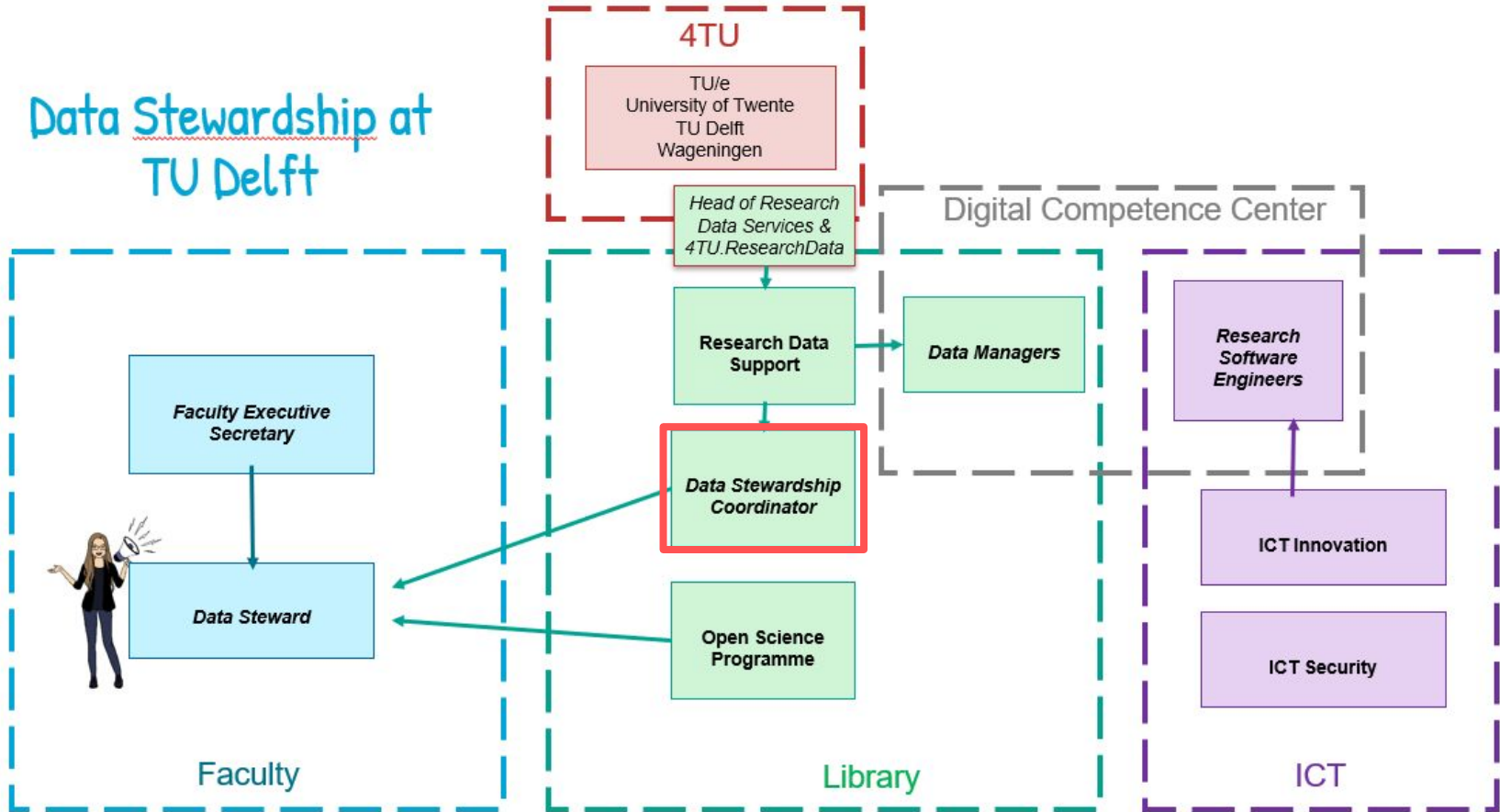
Data Stewardship is more than Data Stewards (to be realized)

Keep the wheels turning: policy goes hand in hand with practice at TU Delft

Cruz, M., Dintzner, N., Dunning, A., van der Kuil, A., Plomp, E., Teperek, M., … & Versteeg, A. (2019). Policy needs to go hand in hand with practice: The learning and listening approach to data management. *Data Science Journal*, *18*(1).http://doi.org/10.5334/dsj-2019-045
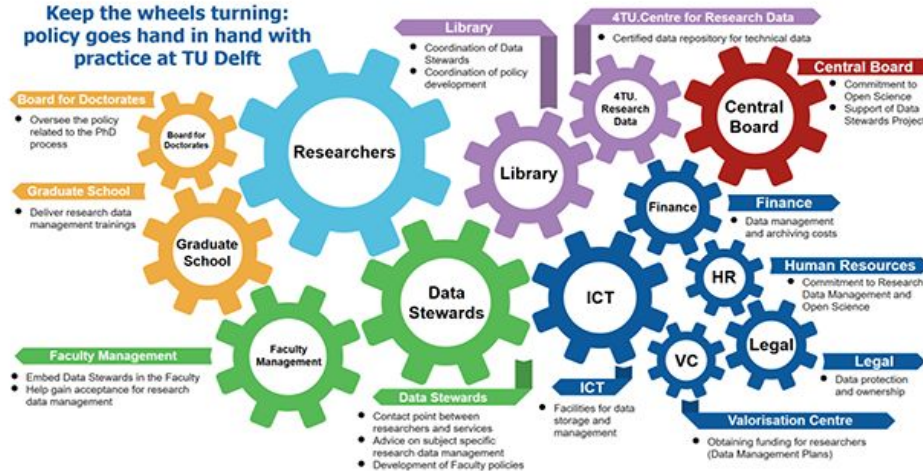
Issues are often more complex:

- Data collection, storage, sharing and reuse practices

- Implications of legal/ethics/privacy and institutional requirements

- Different levels of data literacy in the project consortium

- Disciplinary practices of Rewards & Recognitions

- ……

RDM ecosystem within institutions (example)

ICT Expert

Technical infrastructure, data storage & archiving solutions; troubleshooting, tools and platforms

Demands on research data management

Researcher

GDPR compliance, legal requirements

Privacy Expert

Data and code management for research projects
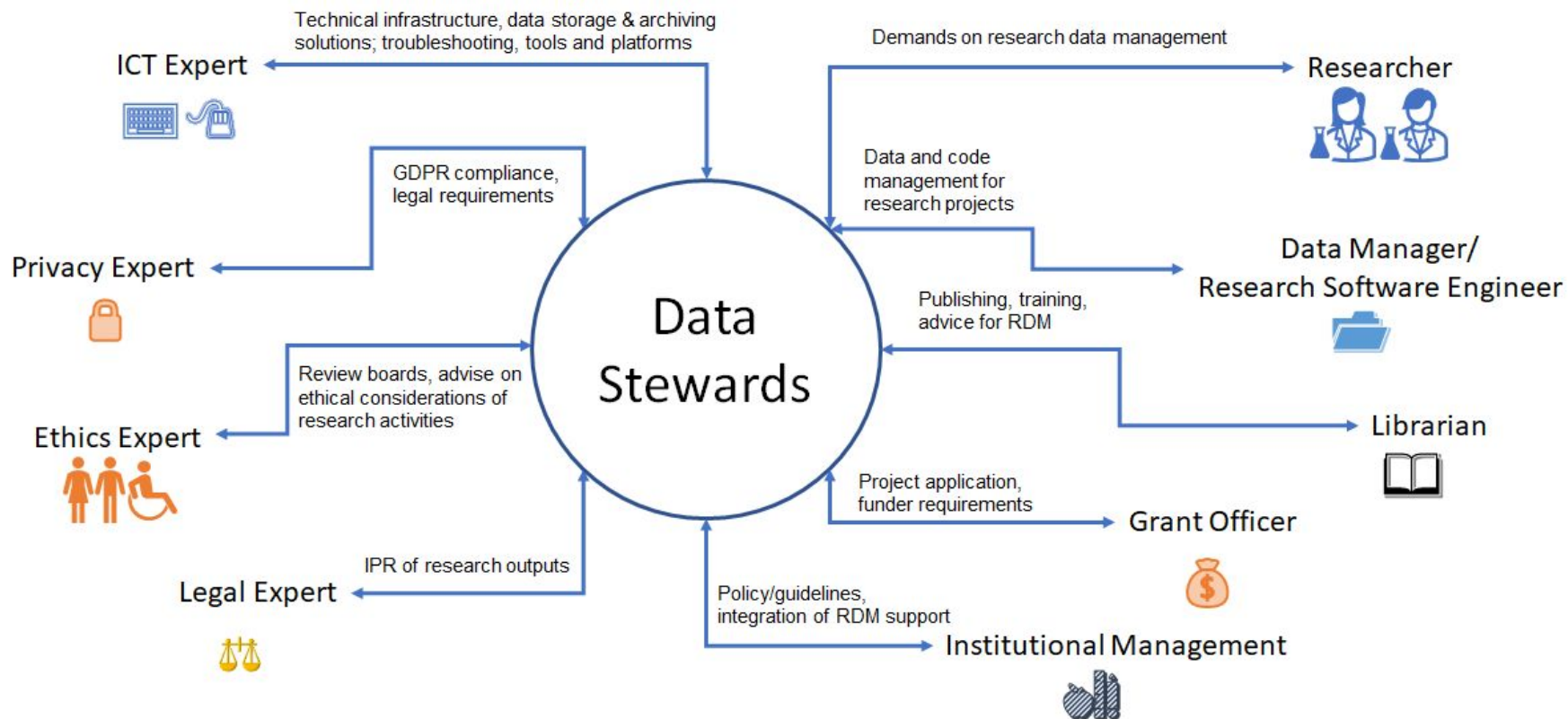
Data Manager/ Research Software Engineer

Data Stewards

Publishing, training, advice for RDM

Review boards, advise on ethical considerations of research activities

Ethics Expert

Librarian

Project application, funder requirements

Grant Officer

IPR of research outputs

Legal Expert

Policy/guidelines, integration of RDM support

Institutional Management

Engage others in Data Stewardship

Researcher

- Awareness of the importance of RDM
- Acknowledgment of own responsibilities
- Willingness to obtain basic digital/data skills
- Collaborate with Data Stewards and other experts

Research support teams

- Show interest in how research works
- Provide compliant services and tools
- Collaborate with each other at operational level

Institutional Management

- Allow room for exploration/innovation
- Support integration of Data Stewardship with existing services
- Support sustainable expertise (career tracks)

Which Data Stewardship Model is for me?

RDA Survey on

Data Stewardship Models

(https://doi.org/10.5281/zenodo.6665146)

- Survey initial analysis report in final stages of editing - due soon!

- Survey dataset available https://doi.org/10.5281/zenodo.6665306

Slide is originally from the RDA Professionalising Data Stewardship Interests Group Plenary 19 session

Which Data Stewardship Model is for me?

Key messages from the survey
1. 136 responses: 82 'complete'
2. Two identifiable main cohorts - roles, functions, funding
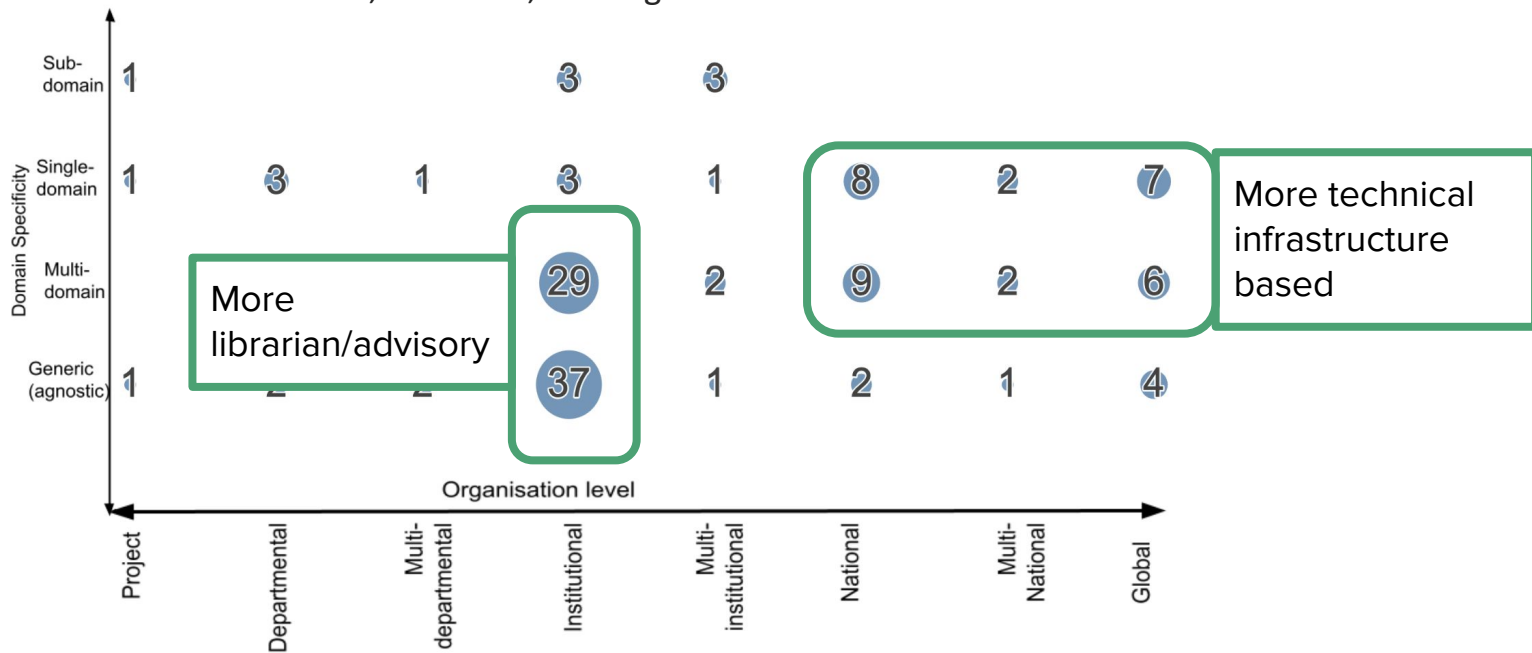
Which Data Stewardship Model is for me? (hard to copy from others)

- Budget and resources
  - Centralised vs Decentralised
  - New services vs Existing services

- Objectives
  - Institutional vision and strategy
  - Focus of support
    - Infrastructure, tooling, applications
    - Institutional processes
    - Research activities / researchers' awareness

- Types of Data Steward support
  - Hands on support to research projects (research, infrastructure)
  - Domain-specific advisor (generic, research)
  - Data management strategy (policy)

Mijke Jetten, Marjan Grootveld, Annemie Mordant, Mascha Jansen, Margreet Bloemers, Margriet Miedema, & Celia W.G. van Gelder. (2021). Professionalising data stewardship in the Netherlands. Competences, training and education. Dutch roadmap towards national implementation of FAIR data stewardship (1.1). Zenodo. https://doi.org/10.5281/zenodo.4623713

Get in contact to exchange practices

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- Organizational model for Data Stewardship
- Career tracks for Data Stewards

   (RDA survey https://bit.ly/DSCareerTracks)

- Data Stewards education
- RDM stakeholder engagement
- 4TU.ResearchData internship program (https://bit.ly/4TUResearchDataInternship)

Thank you for your attention!

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Templates for Research Grants

- [NWO/Horizon Europe](#)
  - CC-BY-SA 4.0

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Guidance Document for the Open Science & Research Data Management Sections of Horizon Europe Applications

TU Delft Data Stewards, Open Science Community Manager et al, August 2021

Purpose of this Document:

This document provides **example answers** to help TU Delft researchers address the questions in Horizon Europe Programme Standard Application Form, Project proposal- Technical description (Part B) section 1.2 ("Open Science" and "Research data management and management of other research outputs") sections.

This document complements the Information and Resources provided in the [Horizon Europe Programme Guide](#).

Important Notes:

- In Part B, section 1.2 of your application, you should address open science specifically in your response to the following questions:
  - [Describe how appropriate open science practices are implemented as an integral part of the proposed methodology... (in 0.5-1 page)](#)
  - [Research data management and management of other research outputs (1 page)](#)
  - [Describe how the consortium brings together the necessary disciplinary and inter-disciplinary knowledge... (in 0.5 page)](#)
- In Horizon Europe, open science practices are considered in the evaluation of proposals, under "excellence" and under the "quality and efficiency of implementation".
- This does NOT apply to the ERC programme where open science is not included in its evaluation.
- Exact wording varies between the HE application forms, but the gists are the same.

Note from authors:

Open science practises vary between disciplines and are quickly evolving with time - any and all suggestions for improvement are very welcome. If you have questions, need support in answering the sections below, or have any suggestions and comments about this document, please contact the [Data Steward of your faculty](#).

Open Science Community TU Delft

- The [Open Science Community Delft](#) (OSCD) is an **inclusive learning community** that focuses on sharing and promoting **Open Science** practices
- Part of the **broader network** of Open Science Communities: INOSC
  - The Netherlands, Galway, Sweden
- [Open Science Community Starter Kit](#)

Image by [Anita Eerland](#), licensed under [CC BY-ND 3.0](#).

TU Delft

Tools

- [DMPonline](#)
  - Create data management plans
  - Templates and guidance (storage solutions, example answers)
  - Webinar: [DMPonline: towards better efficiency](#)
- [Electronic Lab Notebooks](#)
  - Searchable, backed up notebooks that can be reused and shared more easily

- [4TU.ResearchData](#)

- [GitLab](#)

- [Website](#) with information and FAQ

T̃U Delft

https://doi.org/10.5281/zenodo.6558216

Research Data Management

Plan	Policies	Manage
Data management plans	TU Delft & Faculty Policies	The goal of data management
DMPonline	Funders' Policies	Storage
Grant Proposals	Publishers' Policies	Confidential Data
Data ownership		Collect and document
		Electronic Lab Notebook

Publish	Support	Training & Events
Prepare data for publication	Data Stewardship	Training for Researchers
Cite your data	Data Champions	Training for Support Staff
Publish research data	Digital Competence Centre	News & Events
Publish research software		
Licenses		
FAIR Data Fund		