

Professionalising data stewardship in the Netherlands: competences, training and education

Dutch roadmap towards national implementation of FAIR data stewardship

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Professionalising data stewardship as essential in accelerating Open Science

Data stewardship in the Netherlands

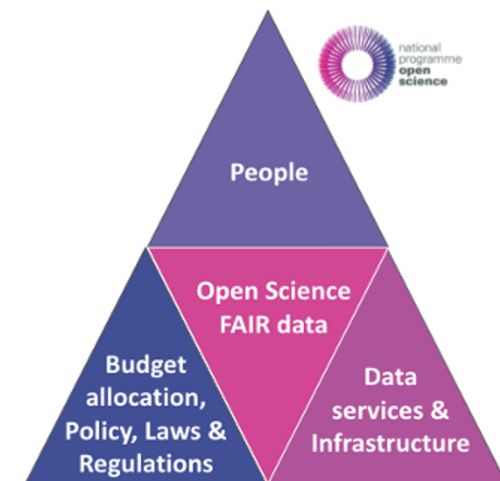
This talk gives an analysis of data stewardship in the Netherlands and draws attention to the need for a nationally coordinated action

Call for action

“Invest 5% of research funds in ensuring data are reusable. It is irresponsible to support research but not data stewardship. (...) Many top universities are starting to see that the costs of not sharing data are significant and greater than the associated risks. Data stewardship offers excellent returns on investment.” [Mons, <https://doi.org/10.1038/d41586-020-00505-7>]

Three dimensions of the route to Open Science

- Policy, regulations, and allocation of budgets
- Research infrastructures and services
- Cultural change in the research and the research support community



The urgency of a coherent approach

Dutch National Programme Open Science (NPOS)

- Three key areas: 100% Open Access publishing, optimal reuse (FAIR) of research data, and corresponding evaluation and valuation systems
- The data stewardship report links to the second key area, together with a report on the Dutch data infrastructure and services landscape

A collaborative effort

- The data stewardship report consists of over 30 representatives of universities, university medical centres (UMCs), universities of applied sciences (UASs), service providers, and representatives of the major Dutch umbrella organisations

Previous reports

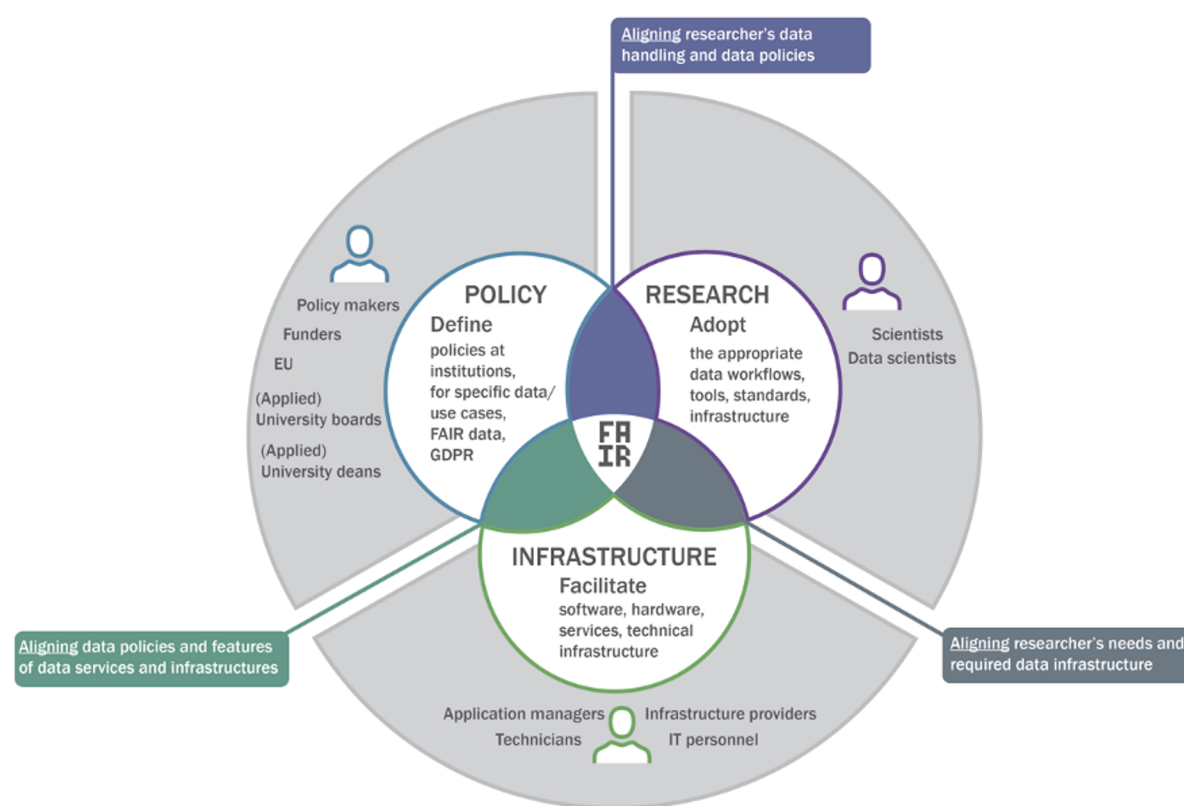
The NPOS report builds upon the widely supported outcomes and recommendations of two previous projects (2019), i.e. the ZonMw data stewardship project and the LCRDM data stewardship project



LCRDM data stewardship task areas

<https://doi.org/10.5281/zenodo.2669150>

<https://doi.org/10.5281/zenodo.3066366>



ZonMw/ELIXIR data stewardship roles in the data stewardship landscape

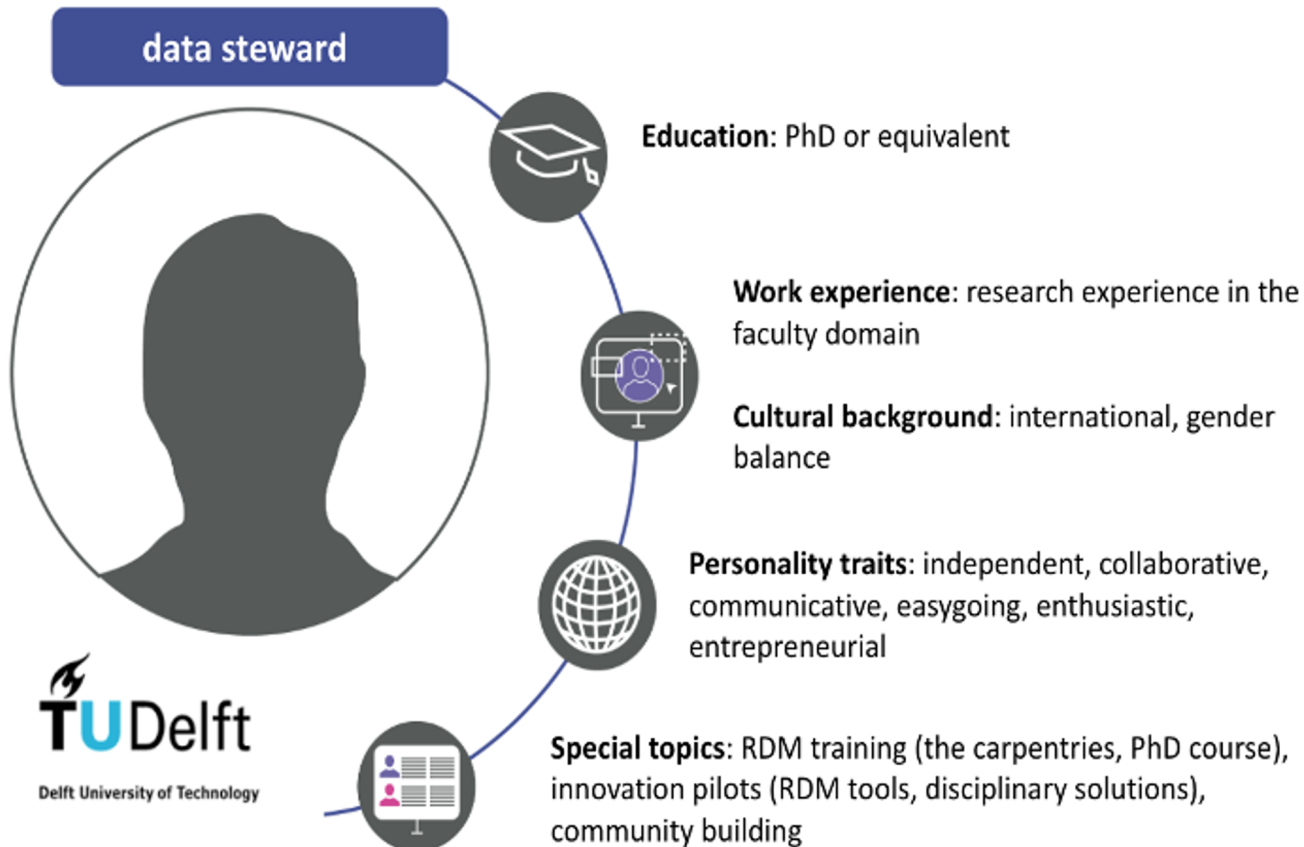
<http://doi.org/10.5281/zenodo.3474789>

<https://doi.org/10.5281/zenodo.3243909>

Landscape analysis on training and education

8 case studies (universities, UASs & UMCs) as a first fact check on data stewardship training and education in the Netherlands

Example Delft University of Technology data steward & case study reference card



Data steward in the organisation



1. Appointment explicit part of RDM policy
2. Positioned at the research institute
3. Additional RDM support for centralised tasks at library
4. No formal central coordination, library is informal linking pin

Training for data stewards



1. Training organised by the coordinator
2. Formal RDM training
3. Training on TUD research support

Learning on the job



1. Structured mentoring
2. Internal peer support (data stewards team)
3. External peer networks
4. Soft skills development: training and on the job
5. Gaining relevant research expertise

Strengths and challenges



1. Strength: well-organised (coordination)
2. Strength: institutional buy-in
3. Strength: sustainable
4. Strength: team-feeling among the data stewards
5. Challenge: expensive (9 FTE)

Basic data steward job profile components

Various annexes with detailed information

- Domain areas, responsibilities, tasks, and competences of a data steward
- Basic components of the data steward job profile - for the UFO (universities) job classification system, as a first step
- Three local university data steward job profiles - for the FUWAVAZ (UMCs) job classification system
- Proposal for a job profile for data stewards in UASs
- Context of the Digital Competence Centers: additionally, the basic components of the research software engineer job profile



Training, education and certification

- Inventory of training resources and pilot annotation of courses based on competences
- Inventory of existing certification mechanism, for different categories: courses, trainees, trainers, and organisations
- Certification for data stewardship is still in its early days and needs to be done in alignment with similar activities in Europe and beyond

Data stewards skills tool

- Competency Hub (<https://competency.ebi.ac.uk>) is interested to expand their tool for our use case and discuss adaptations needed
- Independent of existing tools, 5 data steward personas have been identified, to show how stewards could benefit from the tool and what possible pathways they take

Implementing data stewardship

Summary of recommendations

- Analyse local data stewardship **case studies** to clarify the needs of your organisation
- Formalise the data steward **profile** and stimulate local organisations to adopt these
- These **profiles** should reflect the required competences and be sensitive to diversity in background, expertise, roles, types and organisations. This should result in secured positions and career tracks
- Collaborate locally and nationally in organising **training** and develop a certified curriculum to meet the required expertise level and capacity
- Standardise **metadata** for training and education and create curated training resources
- Create a **data steward skills tool** as a single point of reference for data steward competences, training and education

First steps towards implementation

Thanks to active involvement of so many partners and the practical applicability of the recommendations, currently, many practical activities are already carried out to contribute to building adequate data steward capacity in the Netherlands → **NPOS FAIR data tables**

- The report has been presented at many local, national and international webinars and meetings, a.o. in the digital Competence Centers, at universities, UMCs and UASs
- The report has appeared in many newsletters, websites and tweets. The report has been viewed almost 4000 times and downloaded over 2000 times
- The report's data stewardship competences have been published into the Competency Hub
- The report's competences are/will be taken along into various Dutch training efforts, e.g., Helis (DTL), DCC Implementation Network (LCRDM), RDNL (E4DS training)
- The basic job components have been transformed into a formal UFO data steward profile, which is expected to be formalised in August 2021. Similar talks are ongoing with the FUWAVAZ working group

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Reference

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<https://doi.org/10.5281/zenodo.4320504>

Participating organisations

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