BioData.pt

TRAINING DATA STEWARDS

FOR LIFE SCIENCES

**Presentation 1**: Landscape overview of data stewardship in the Netherlands

**Presentation 2**: Community building among data stewards: the Dutch experience

*Mijke Jetten*
*Community Manager Data Stewardship (DTL)*
*Programme Manager FAIR Data (Health-RI)*
*March 7, 2022*

health RI enabling data driven health

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DTL DUTCH TECHCENTRE FOR LIFE SCIENCES

national programme open science

# Outline

- Getting to know each other
- Learning goals
- Data stewardship roles and responsibilities
- Data stewardship training
- Local, disciplinary, national and international communities
- Takeaways

Slides: https://doi.org/10.5281/zenodo.6334297

TRAINING DATA STEWARDS
FOR LIFE SCIENCES

# Getting to know each other

## You are a data professional

The ideal trainee:

- has a PhD in Life Sciences
- has a permanent position,ideally with an interest in data
- is committed to take the whole training program
- after this program, will be involved in the support to the data management, FAIR data and open science policies in her/his organizations.


By the end of this course you will be able to make significant contribution in:

- Writing data management plans in support to grant applications
- Ensuring continuity and sharing of data over projects
- Ensuring data quality
- Supporting the elaboration of institutional data management guidelines
- Supporting compliance with institution data management policy
- Contributing to knowledge exchange with regard to data management

TRAINING DATA STEWARDS

**Introduce yourself**

As an icebreaker, to get to know each other a bit better, **use the shared notes to share with us**:

*If you could have an extra hour of free time every day, how would you use it?*

*If academia wouldn't exist, what would you do for a living?*

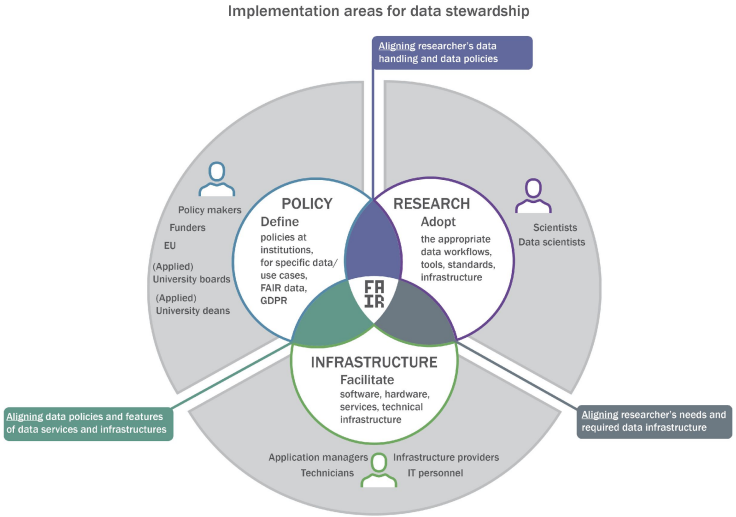
*Let's find out how multidisciplinary we are …*
*What are your domains of expertise and/or what scientific background do you have?*

*If you could live anywhere in the world for a year, where would it be? Why?*

*If you could have any superpower, what would it be?*

Of course, we are just getting to know each other, but …
*What is one thing we don't know about you yet and that you want to share with us?*

- Do you recognize your current and/or future role in the diagram? **Where are you in the diagram?**
- **Where are your colleagues in the diagram**? Does your current and/or future team cover all the roles needed?
- What is **your biggest challenge**?



# Getting to know each other

1. **Where are you in the diagram?**

- Current:
  - Mainly researchers and/or research data stewards (workflow/pipelines, data analysis, stimulate data management, project management, data deposit, metadata)
  - Some (also) infrastructure data stewards (hardware purchases, technical support, data management plans)
  - Some (also) policy data stewards (writing policy, promote FAIR and Open Science)
  - Some are in the centre of the diagram, having all three roles (in one person)
- Future: wish/need to perform other roles as well

2. **Where are your colleagues in the diagram? Does your current and/or future team cover all the roles needed?**

- Mainly researchers and/or research data stewards (disadvantage: not all roles covered in team)
- Combination of researchers/research data stewards and policy data stewards
- Combination of researchers/research data stewards and infrastructure data stewards
- Particularly lack of policy data stewards
- All roles covered but too small team (to truly promote/realise FAIR data and Open Science among researchers)

# Getting to know each other

3. **What is your biggest challenge?**

- Awareness of the importance of Open Data for scientific research (progress is slow)
- Effective data management in the institution (align that with the needs of each researcher)
- Engage researchers (time constraints; ‘administrative tasks’)
- Identify people with the required competences (data steward as a profession; too many tasks/roles for one person; lack of resources)
- From policy to implementation (implementing FAIR and Open Science)
- Structured approach to data management
- Alignment with policy makers and funders (DMPs)

# Learning goals

**After this presentation …**

- you are able to position yourself in the data steward landscape
- you are aware of tools with information on the required knowledge, skills and abilities
- you are aware of training resources that help you acquire this knowledge, skills and abilities
- you understand how community building may help you to become a better data steward
- and you might even be inspired to start/participate in similar communities yourself

# Data stewardship roles and responsibilities

# Data stewardship roles and responsibilities

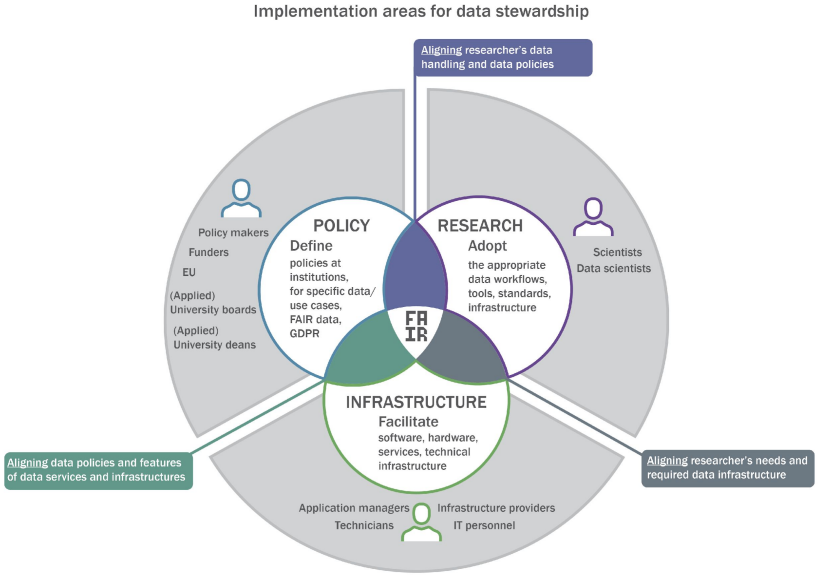




*Figure 4.2 Basic job profile components of a data steward*

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ZonMw/ELIXIR-NL funded project "Towards FAIR Data Steward as profession for the Life Sciences"

- All project output: https://zenodo.org/communities/nl-ds-pd-ls
- Final report (2019): https://doi.org/10.5281/zenodo.3471707
- Matrices: https://doi.org/10.5281/zenodo.3239079
- Since 2019 also in the https://competency.ebi.ac.uk

NPOS project "Professionalising data stewardship in the Netherlands. Competences, training and education. Dutch roadmap towards national implementation of FAIR data stewardship"

- Final report (2021): https://doi.org/10.5281/zenodo.4320504

Radboudumc umcg Radboud University UMC Utrecht DTL DUTCH TECHCENTRE FOR LIFE SCIENCES elixir NETHERLANDS NFU NEDERLANDSE FEDERATIE VAN UNIVERSITAIR MEDISCHE CENTRA ZonMw

# What does a data steward do?

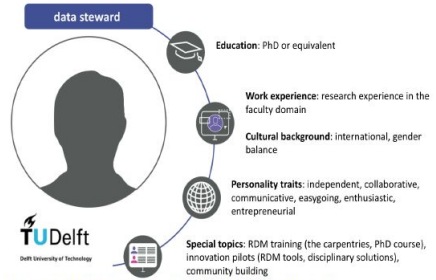


*Figure 3.1 Delft University of Technology data steward*

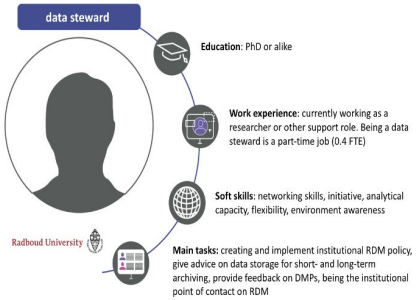


*Figure Annex 2.3 Radboud University data steward*

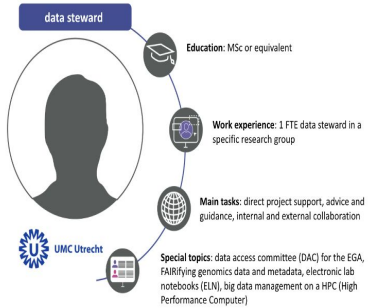


*Figure Annex 2.5 UMC Utrecht data steward*

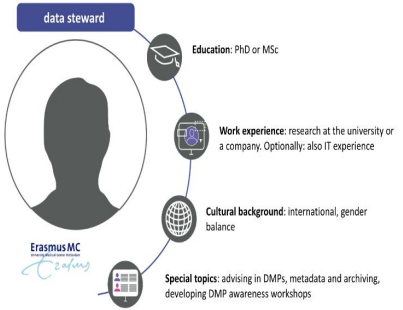


*Figure Annex 2.7 Erasmus MC data steward*

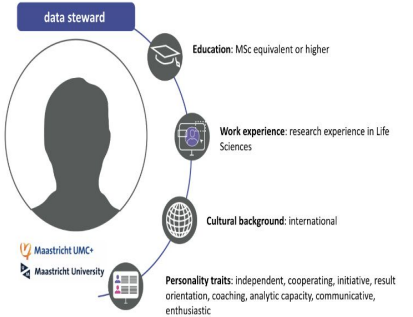


*Figure Annex 2.9 Maastricht UMC data steward*

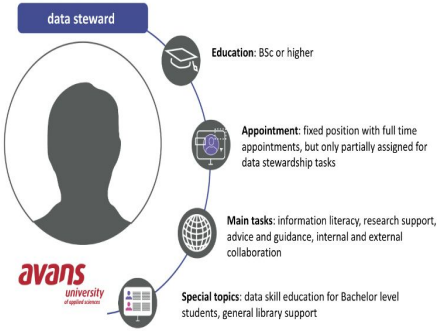


*Figure Annex 2.11 Avans University of Applied Sciences data steward*

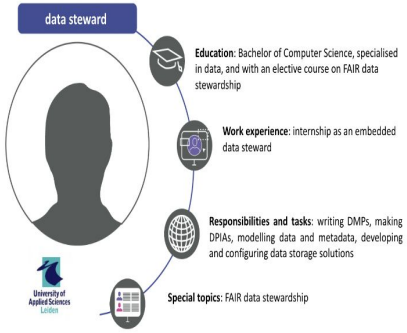


*Figure Annex 2.13 University of Applied Sciences Leiden data steward*

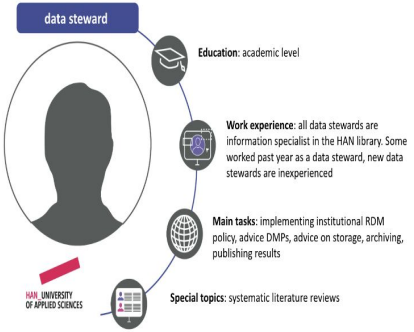


*Figure Annex 2.15 HAN University of Applied Sciences data steward*

Read these data stewards' full stories at https://doi.org/10.5281/zenodo.4320504

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# Data steward personas

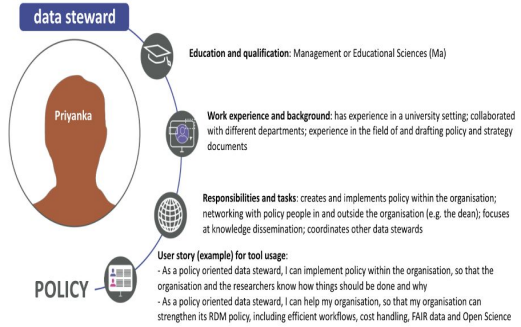


*Figure Annex 12.1 Policy data steward persona (individual perspective)*

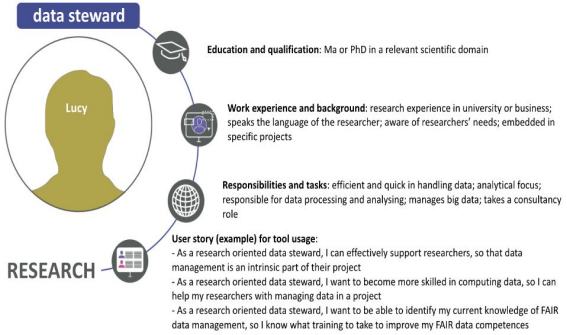


*Figure Annex 12.2 Research data steward persona (individual perspective)*

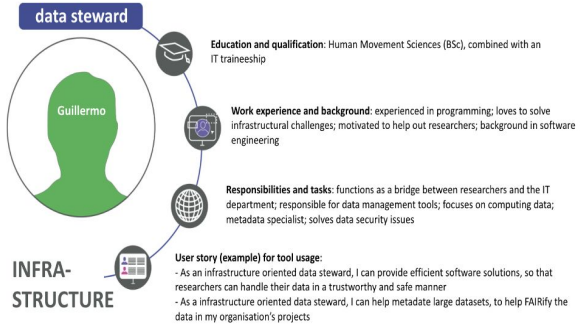


*Figure Annex 12.3 Infrastructure data steward persona (individual perspective)*

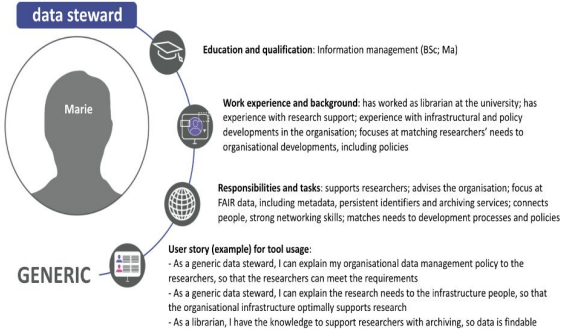


*Figure Annex 12.4 Generic data steward persona (organisational perspective)*

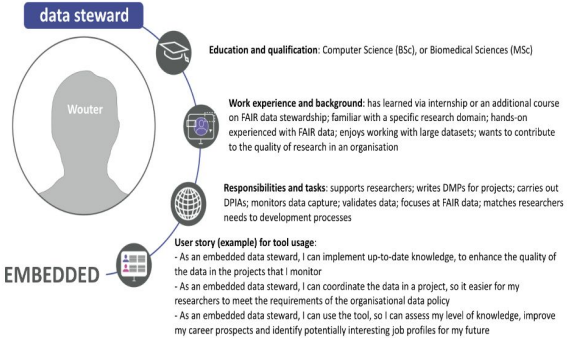


*Figure Annex 12.5 Embedded data steward persona (organisational perspective)*

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

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# Data steward competences

## Network: Obtaining and maintaining a network of aligned expertise areas and relevant organisations by the institute

› [Policy Oriented Data Steward] Responsible for obtaining and maintaining a network of aligned expertise areas and relevant departments and organisations inside and outside the institute with regard to research data management

⌄ [Research Oriented Data Steward] Responsible for liaison and alignment of research data management within the department or project group and with relevant stakeholders outside the department or project group

***Activities and tasks*** More details

- Refers researchers to other RDM related facilities and services (legal, financial or operational), inside and outside the department or project
- Liaises with RDM-related experts inside and outside the department or project
- Maintains a network with colleagues and other relevant departments and projects

***Knowledge, skills and abilities (KSAs)***

- Knowledge about where to find department or project stakeholders and researchers, including relevant networks
- Liaise with department or project stakeholders, researchers and other data stewards and establish an active network
- Communicate with a diverse range of stakeholders

***Learning objectives (LOs)***

- Explain where to find department or project stakeholders and researchers (remembering)
- Liaise with department or project stakeholders and researchers (applying)
- Establish an active network in which regular consultations are taking place (evaluating)

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elixir

https://competency.ebi.ac.uk

# Data steward competences

## Policy and Strategy: Development, implementation and monitoring of the research data management policy and strategy of the institute

› [Policy Oriented Data Steward] Responsible for advice on and development, implementation and monitoring of a research data management policy and strategy for the institute, which includes the complete research data life cycle and supports FAIR data and Open Science, in alignment with the relevant stakeholders and within financial and legal constraints, within the institute and in the context of the institute. The policy is the basis for (project) data management plans

⌄ [Research Oriented Data Steward] Responsible for the development and implementation of a data management plan for departments, projects or data collections within the institute that is in alignment with the research requirements, specifications and practices, and is in line with the institute's research data management policy and supports FAIR data and Open Science

***Activities and tasks***

ⓘ More details

- Develops DMP templates tailored for the departments, projects or data collections within the institute
- Writes and/or supports researchers in writing a DMP for departments, projects and data collections, in line with the institute's RDM policy
- Implements RDM as a regular aspect of doing research

***Knowledge, skills and abilities (KSAs)***

- Knowledge about the general research process and all aspects of RDM and the research data life cycle
- Knowledge about the content of a DMPs, including knowledge about the purpose and how to use it within the research process
- Develop tailored DMP templates together with stakeholders that are understood and can be used by researchers and support staff within the institute
- Translate RDM policies and DMPs to practical implications and guidelines that researchers can understand
- Monitor the use of DMPs by researchers
- Design and draft DMPs for research projects
- Review DMPs written by researchers and help adjusting and refining DMPs over time
- Identify services which support the researcher in putting the DMP into action
- Monitor research projects with regard to data management
- Knowledge about relevant stakeholders and how to contact them

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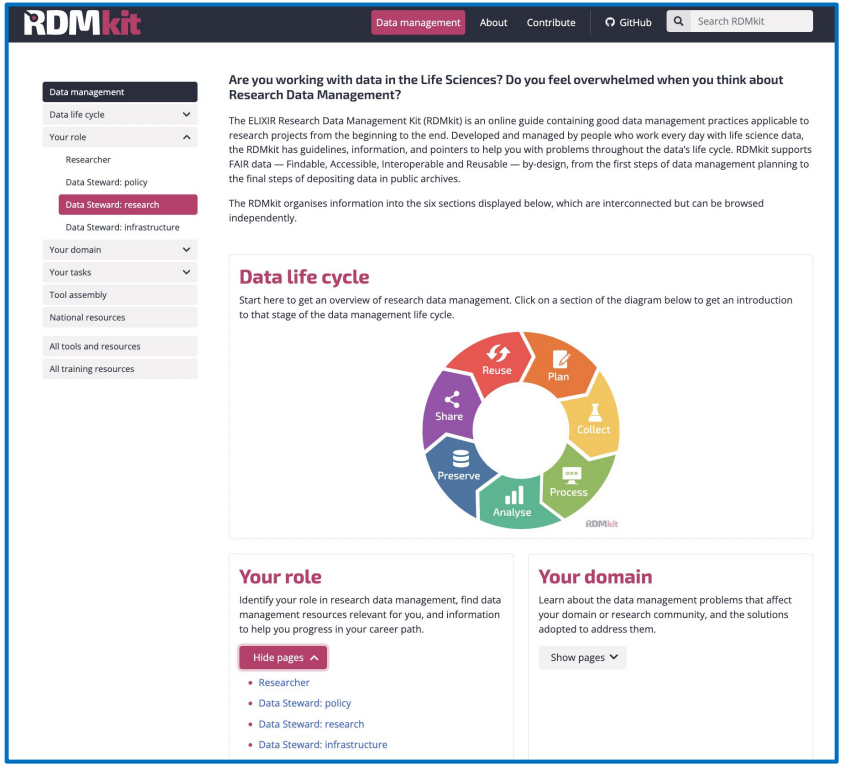
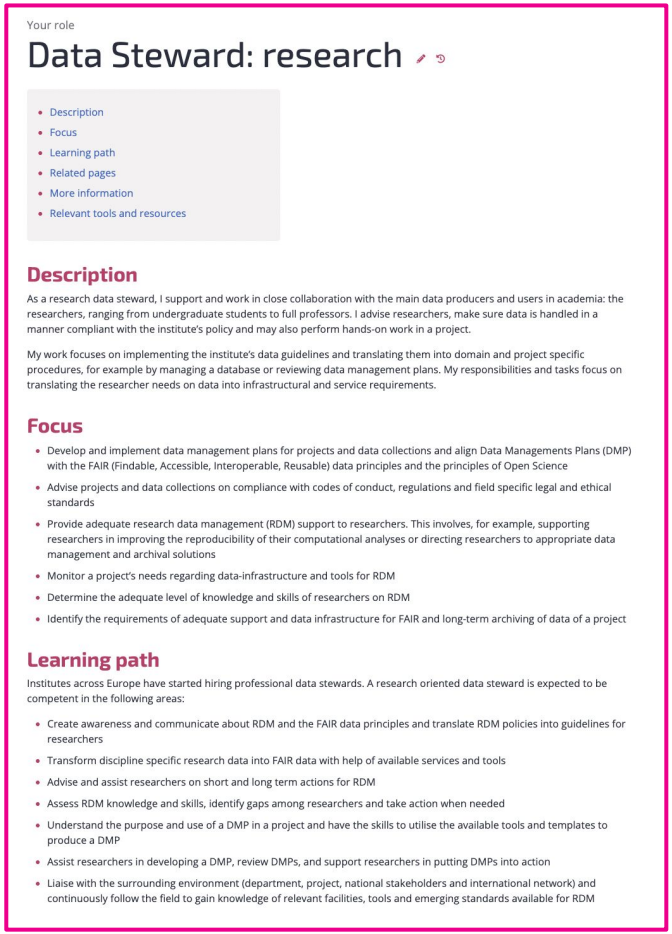
# Data steward tools

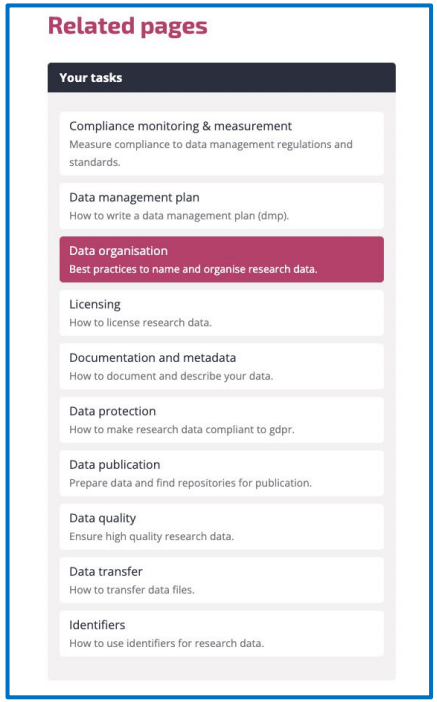


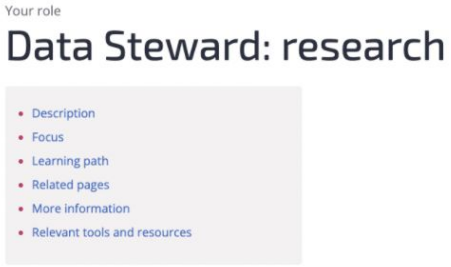



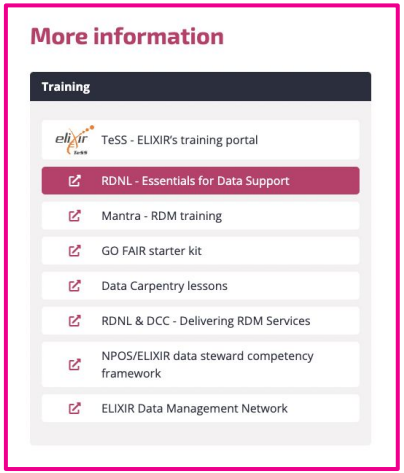

https://rdmkit.elixir-europe.org

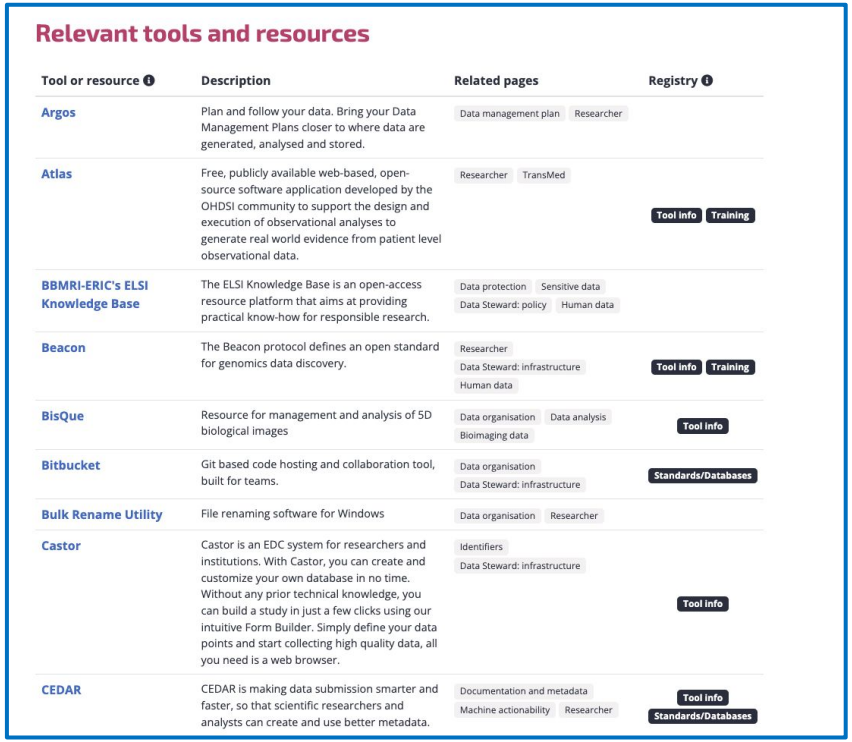
RDMkit

# Data steward tools



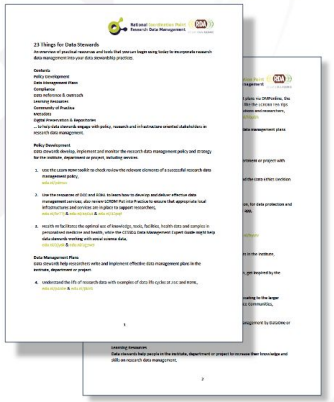

https://rdmkit.elixir-europe.org

RDMkit

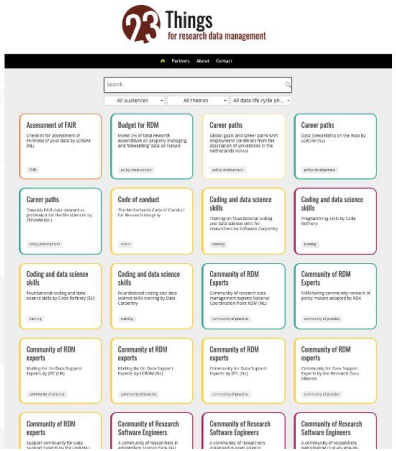
# Data steward tools

RDA Output

National Coordination Point Research Data Management



Digital sheets for training purposes
https://doi.org/10.5281/zenodo.3773663




Toolkit (beta version)
https://23things.sites.uu.nl

Filter by
Audience (7 options)
Theme (17 options)
Data life cycle phase (6 options)

Work in progress

Audiences

- Researcher
- Student
- Librarian
- Data steward
- IT staff
- Research Software Engineer
- Policy maker

https://www.lcrdm.nl/en/23things

# Data stewardship training

TRAINING DATA STEWARDS
FOR LIFE SCIENCES

# Helis course FAIR data stewardship

https://www.aanmelder.nl/fair-data-stewardship-2021/part_program
https://tess.elixir-europe.org/events/helis-course-fair-data-stewardship

## 3rd edition of *FAIR data stewardship (for the life sciences)*

Did you ever wonder how to improve your data handling in your daily research practice? Want to improve the FAIRness of your data?

Did you recently start a job as data steward? Are you thinking of starting a career as a data steward in the life sciences in academia or industry?

Join this introductory course to FAIR data stewardship in the life sciences!

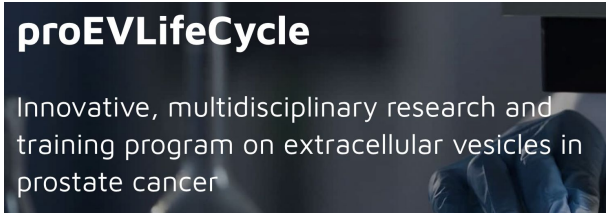
### Course topics

We will pass the stages of the data life cycle in more detail in the training modules of the course. The following topics will be discussed at an introductory level:

- Data stewardship competency framework & the FAIR data stewardship landscape
- (Reviewing) data management plans
- Informed consent procedures
- Data discovery and capturing data
- Preregistration
- Data security and privacy
- Infrastructure for storing and sharing data
- Tools for processing and analysing data
- Organising, versioning and documenting data
- Data and software carpentry
- Archiving data
- Data rights
- FAIR data
- Metadata & ontologies

**Related training materials:**

- Helis Academy course FAIR data stewardship 2021, Day 1, Introduction Landscape Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 1, Institute requirements
- Helis Academy course FAIR data stewardship 2021, Day 1, Funder requirements
- Helis Academy course FAIR data stewardship 2021, Day 1, Publisher requirements
- Helis Academy course FAIR data stewardship 2021, Day 1, (Reviewing) Data Management Plans
- Helis Academy course FAIR data stewardship 2021, Day 2, Introduction Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 2, Informed consent procedures
- Helis Academy course FAIR data stewardship 2021, Day 2, Finding and capturing data part 1
- Helis Academy course FAIR data stewardship 2021, Day 2, Finding and capturing data part 2
- Helis Academy course FAIR data stewardship 2021, Day 2, Data security and privacy
- Helis Academy course FAIR data stewardship 2021, Day 2, Infrastructure for storing and sharing data
- Helis Academy course FAIR data stewardship 2021, Day 2, Tools for processing and analysing data
- Helis Academy course FAIR data stewardship 2021, Day 3, Introduction Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 3, Electronic Lab Notebooks (ELN)
- Helis Academy course FAIR data stewardship 2021, Day 3, Software carpentry/Versioning
- Helis Academy course FAIR data stewardship 2021, Day 4, Introduction Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 4, Software carpentry
- Helis Academy course FAIR data stewardship 2021, Day 4, Data carpentry
- Helis Academy course FAIR data stewardship 2021, Day 5, Introduction Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 5, Archiving data
- Helis Academy course FAIR data stewardship 2021, Day 5, Data rights
- Helis Academy course FAIR data stewardship 2021, Day 5, Preregistration
- Helis Academy course FAIR data stewardship 2021, Day 6, Introduction Wrap up
- Helis Academy course FAIR data stewardship 2021, Day 6, FAIR Data
- Helis Academy course FAIR data stewardship 2021, Day 6, Metadata
- Helis Academy course FAIR data stewardship 2021, Day 6, Metadata FAIR Data Point





https://doi.org/10.5281/zenodo.5704716

# Welcome and introduction

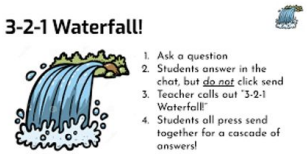
## Your needs

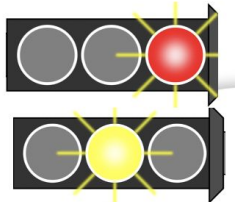
Via the assignments, you have provided the content of today's session. We invite you to participate actively, ask questions and use examples so we can tailor the session to your needs. This session is a success if you feel that it is time well spent!

## Objectives

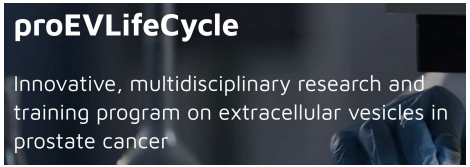
- By the end of this session, you will be able to recognise the basics of FAIR data stewardship in the various stages of the data life cycle
- And you will be able to evaluate what actions need to be taken to solve FAIR data stewardship issues in the proEVlifecycle research project

## Content

1. FAIR data stewardship generics (slides 4-9)
2. How to be FAIR aware (slides 10-25)
3. Recap: group efforts on FAIR data stewardship (slides 26-36)
4. Recap: *ten practices*: 'prepare well to prevent data disaster' (slides 37-47)
5. Next steps: FAIR awareness and group actions (slides 48-50)

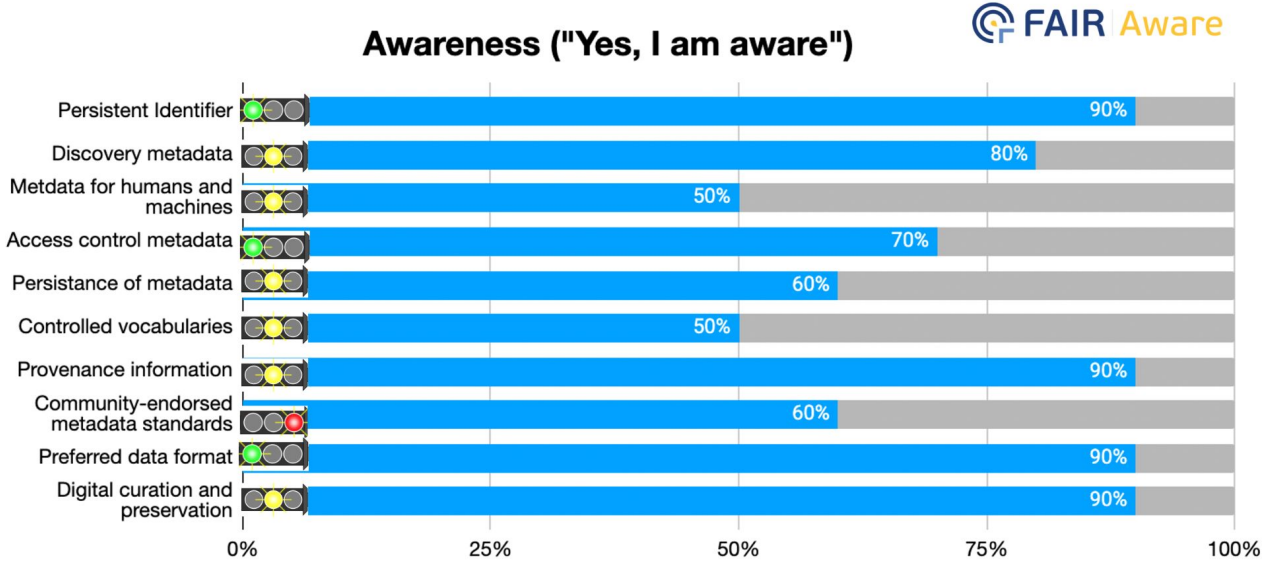


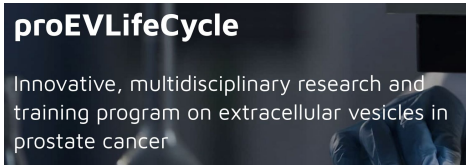


https://fairaware.dans.knaw.nl/
https://doi.org/10.5281/zenodo.5704716

# FAIR awareness

FAIR starts right at the beginning of your research, in the planning phase. Use the FAIR Aware tool to reflect on your (future) FAIR practices. Keep your project's (future) dataset in mind. What are already good practices/what is feasible and what are the challenges or bottlenecks?







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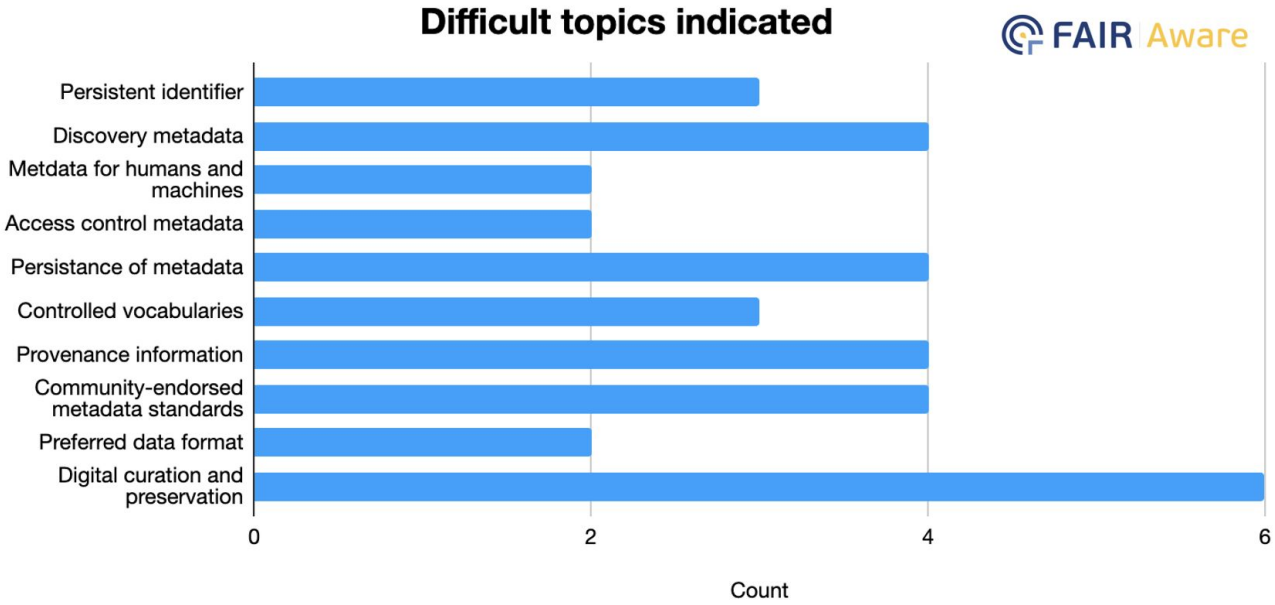
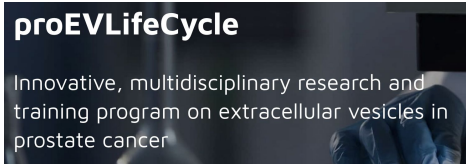
https://doi.org/10.5281/zenodo.5704716

# FAIR difficulties







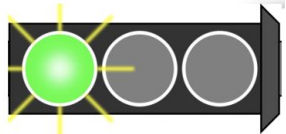
https://fairaware.dans.knaw.nl/
https://doi.org/10.5281/zenodo.5704716

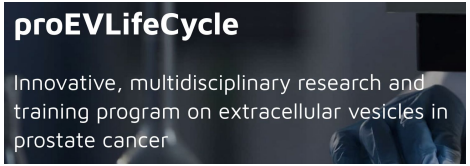
# Findable data (cf. FAIR Aware)

1. Your dataset should be assigned a globally unique persistent and resolvable identifier

   ✓ So your dataset can be located unambiguously by humans or machines
   ✓ Identifiers (such as a DOI) are usually assigned by data repositories
   ✓ Persistent identifiers (PID) remain stable and direct users to the object consistently over time
   ✓ Not all data will need a PID; in general, those that underpin published findings or have longer term value are worth assigning a PID
   ✓ PIDs ideally point to an online page that contains metadata for context and the link to access the actual data, or details about how to request access

FAIR Aware







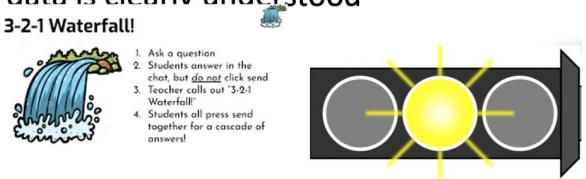
https://fairaware.dans.knaw.nl/
https://doi.org/10.5281/zenodo.5704716

# Findable data (cf. FAIR Aware)

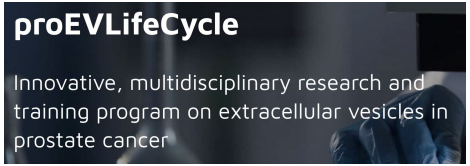
2. You will need to provide details (discovery metadata) to make the data findable, understandable and reusable

   - ✓ Metadata: descriptive information about the data object (e.g. creator, title, publisher, creation date, publication date, summary, keywords, PIDs, license)
   - ✓ Data content: an accurate reflection of the data deposited (e.g. resource type, format, size, variables, methods)
   - ✓ Other research outputs: include links to other research output to increase reuse (e.g. prior version, other datasets, publications, data source, data creators/collectors, funders, host institution)
   - ✓ A discipline-specific repository will likely be using common metadata standards (see for instance Re3data or FAIRsharing)
   - ✓ It pays to spend time on providing a good description rather than just the minimum information required, so your data is clearly understood

You have indicated this as a difficult topic




FAIR Aware





https://doi.org/10.5281/zenodo.5704716

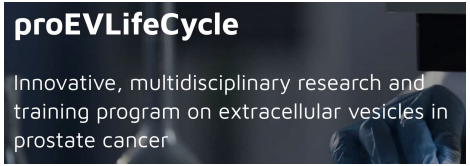
# 4. Recap: ten practices: 'prepare well to prevent data disaster'

Reread last session's article: Briney KA, Coates H, Goben A (2020) Foundational Practices of Research Data Management. Research Ideas and Outcomes 6: e56508

Reread last session's slide deck for example best practices from your own team, and details of the recommended actions

Check the Data Management Plan (D6.3) and EV database report (D4.3)

What steps have you taken in the past year to improve FAIR data stewardship?





https://doi.org/10.5281/zenodo.5704716

# 3. Recap: group efforts on FAIR data stewardship


Create standards and templates (for documentation, organisation/structures of files, file names, versioning, SOPs, change management)


Use a version control system such as Git (and also use it for corrections and annotations)


Explore your institution's storage solutions, such as the DRE, and commit to the (automated) backup procedures of your institution

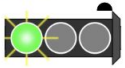

Develop a secure and feasible research workflow (including working towards future data integration)

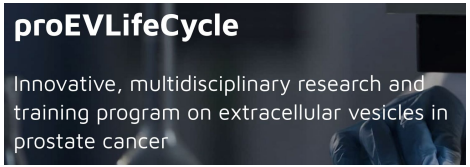

Regularly structure and organise outputs (including taking snapshots at key points in the project)


Discuss with the group to use external repositories (including making plans: when, what and how, aimed at reproducibility and reusability)


Create a DMP if you didn't do so yet, per project or as joint effort, and periodically discuss and update it


Formally appoint roles and responsibilities


Knowledge exchange and training (including exploring tools together, learn how to prepare for data archiving, learn from best practices, and check the understandability of each others data activities)





https://doi.org/10.5281/zenodo.5704716

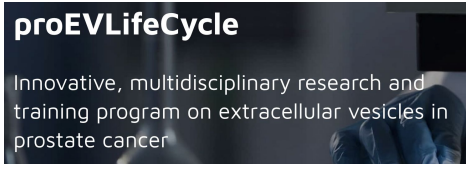
# Practice 1. Keep sufficient documentation

*Easy steps to take*

- Create documentation standards/templates to ensure recording of the same information (group effort)
- Take the 'outsider' perspective: can others understand my data activities? (group effort)
- Document so that research is reproducible (document more and more)
- Don't wait: document your data right away

*How does this help you?*

- Producing documentation in the course of your research ensures that data can be
  - ✓ properly interpreted as relevant context is available
  - ✓ verifiable and reproducible
  - ✓ reusable (by you or by others)
- It helps to explain
  - ✓ the content of the dataset, at the data level (codebook)
  - ✓ the context of the dataset, and how the research was done (methodology section)
  - ✓ the structure of the dataset (readme.txt file with the structure of the dataset)
- Optimising the usability, reusability and reproducibility of the resulting data





https://doi.org/10.5281/zenodo.5704716

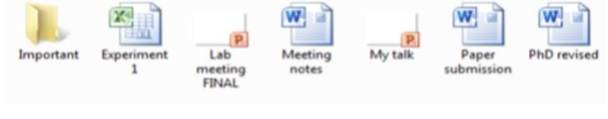
# Practice 2. Organise files and name them consistently

*Easy steps to take*

- Record the structure you choose, and create standards/templates to ensure organising in the same way (group effort)
- Separate raw, analysed, processed data
- Separate ongoing from closed work (milestone versions)
- If you use abbreviations, make sure to explain them
- Keeping folder and file names as short as possible
- Apply the same to physical data (samples)
- Don't wait: organise your data right away

*How does this help you?*

- Optimising the usability, reusability and reproducibility of the resulting data
- In 3 years time, would you know what these are?





# The M4M Workshop concept

## Making it easy for humans to make metadata for machines

Metadata for Machines (M4M) workshops are agile, hackathon-style events that bring together domain experts (who are able and willing to represent a domain community) with FAIR metadata experts (data stewards) who guide a discussion leading to the metadata requirements that meet the FAIR data needs of that domain community. M4M Workshops are lightweight, fast-track (often 1-day) events where policy and domain experts can build new, or make informed choices regarding the reuse of already existing metadata schema. Although M4M Workshops can serve many purposes, they are usually intended to kick-start FAIRification efforts with minimally viable metadata components that are modular, and can be later extended as needed.


https://www.gofairfoundation.org/m4m/


# The M4M Workshop concept

## ZonMw COVID-19 Community

**Guidelines for completing CEDAR forms**
Link to the guidelines document

**CEDAR forms – to be filled out**
Project Admin form [CEDAR account required]
Project Content form [CEDAR account required]
Data Catalogue form [CEDAR account required]
Dataset form [CEDAR account required]
Data Distribution form [CEDAR account required]

**CEDAR forms in OpenView – easy way to view/share forms**
Project Admin form in OpenView [no CEDAR account required]
Project Content form in OpenView [no CEDAR account required]
Data Catalogue form in OpenView [no CEDAR account required]
Dataset form in OpenView [no CEDAR account required]
Data Distribution form in OpenView [no CEDAR account required]

**BioPortal vocabularies**
ZonMw Generic Terms
ZonMw COVID-19 Vocabulary

## Useful links

- ZonMw's news item on their approach to optimize reuse of COVID-19 related data
- ZonMw's new item on FAIR metadata about the COVID-19-projects available on COVID-19 Data Portal of Health-RI
- Health-RI's Workshops on delivering FAIR metadata for COVID-19 data portal
- Health-RI's information on the COVID-19 data portal
- Health-RI direct link to the COVID-19 data portal
- Information on the workshops can also be found on the GO FAIR Foundation website on M4Ms.

https://www.gofairfoundation.org/m4m/

https://covid19initiatives.health-ri.nl/p/ProjectOverview
https://www.gofairfoundation.org/m4m/

# The M4M Workshop concept

Disease (1..N)

Which category of diseases, if any, is relevant for your project? Multiple answers are allowed.

If you ticked human disease, what specific disease is relevant for your project?

If you ticked animal disease, what specific disease is relevant for your project?

If you ticked plant disease, what specific disease is relevant for your project?

Please enter the disease if not found in the drop-down list.

Type of Biomaterial (1..N)

What type of biomaterial, if any, is relevant for your project? Multiple answers are allowed.

What organisms are the target of your analysis?

Please enter the organism if not found in the drop-down list.

If you ticked substance, what kind of substance is relevant for your project?

If you ticked specimen, what kind of specimen is relevant for your project?

If you ticked macromolecule, what kind of macromolecules is relevant for your project?

If you ticked other, which ones would you like to add?

Temporal Scope (1..N)

Temporal Scope - Multiple answers are allowed.

Please enter the temporal scope if not found in the drop-down list.

Population Group (1..N)

Population Group - Multiple answers are allowed.

Please enter the population group if not found in the drop-down list.

## ZonMW COVID-19

Last uploaded: January 1, 2022

Summary | Classes | Properties

Jump to:

- **biomaterial**
- constraint
- data
  - audiovisual data
  - diagnostic imaging
  - economic data
  - environmental data
  - genomics data
  - geographical data
  - health data
  - personal information data
  - political data
  - qualitative data
  - social data
  - socio-economic data
  - survey data
- deprecated
- focus area
- population group
  - COVID-19 patient grouping
  - COVID-19 vaccination grouping
  - people by age
  - people by COVID-19 risk factors
  - people by education
  - people by employment
  - people by gender
  - people by sex
  - people with migration background
  - target group of policy interventions
- property
- service
- spatial scope
- standard
- subject
- temporal scope
- variable

health RI
enabling data driven health

## Project overview

Request data | Reset

Search

Lead institution

Data availability

ZonMw focus area

Type of provided assets

Provided data

Type of provided biomaterial

Type of provided service

Changes in the use and organization of care in general pract
the COVID-19 pandemic
COVID-GP
ZonMw - Netherlands Organisation for Health Research and Development | NIVEL - N

Aanhoudende Klachten na COVID-19: perspectief vanuit de
ACTION
ZonMw - Netherlands Organisation for Health Research and Development | University

COVID-NL cohort RadboudUMC
RadboudUMC COVID-NL cohort
other | Radboud University Nijmegen Medical Centre

https://www.gofairfoundation.org/m4m/

# Data stewardship community building

# Four levels of community building in the Netherlands

- Local (universities, universities of applied sciences, university medical centres)
- Disciplinary (for example Health-RI, Odissei, Clariah)
- National (for example LCRDM, DSIG, GO FAIR)
- International (for instance RDA)

CC BY
DTL DUTCH TECHCENTRE FOR LIFE SCIENCES
health RI enabling data driven health

# Implementation Plan Investments Digital Research Infrastructure

With the extra structural investments and the kickstarter funding, deployed as an integral coherent plan, NWO wants to stimulate the following aspects:

- Data sharing according to the principles of FAIR (Findable, Accessible, Interoperable, Reusable) and open science.
- Federated digital infrastructure both locally and at the (inter)national level.
- Making research data easier to analyse by using more powerful computer capacity, larger storage capacity and new technological developments.
- Making more use of software already developed because this is better known and more accessible.

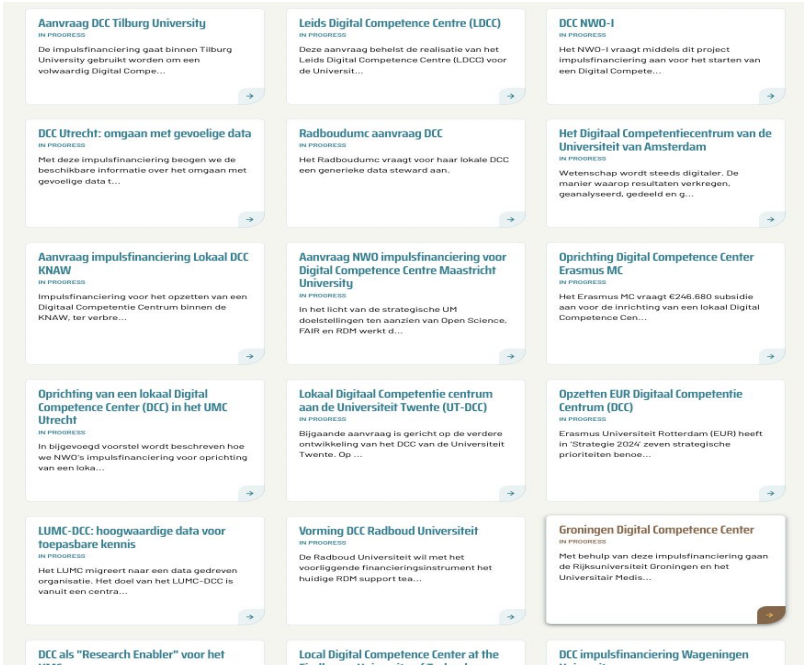
## Subprogrammes

There are four funding lines within this programme: Local DCCs, thematic DCCs, Investments in eScience, Computing facilities (supercomputer and computing time). The PC-LRI subcommittee ICT is in charge of the programme.

- Local DCCs
- Thematic DCCs
- Investments in eScience
- Computer facilities
- ICT subcommittee of the PC-LRI

### Local DCCs

This call was a one-off stimulus for the setting up or further development of local Digital Competence Centers. Research institutions could use this funding to appoint data stewards and data managers for an existing DCC or the central setting up of a new DCC within the institution. With this call, NWO also wanted to ensure that the institution would safeguard the DCC concerned from both a policy and financial perspective.




https://www.nwo.nl/en/researchprogrammes/implementation-plan-investments-digital-research-infrastructure

# Implementation Plan Investments Digital Research Infrastructure

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- Local DCCs
- Thematic DCCs
- Investments in eScience
- Computer facilities
- ICT subcommittee of the PC-LRI

### Thematic DCCs

In the spring of 2022, the thematic DCC (TDCC) network organisations will start. NWO will subsequently publish a call for proposals each year for the realisation of these networks.

The local DCCs provide generic support to researchers within a single institution. However, many researchers collaborate across institutions on specific research themes, and they could benefit from joint support for their research theme. For example, this could concern how you make agreements to better disclose and share data, or about the development of software that makes data analysis within that research theme easier.

To support this, the implementation plan provides for the formation of TDDCs. These network organisations will be established at the start of 2022 with funding from NWO. There will be three TDCC networks that will bring together researchers in three 'domains' (just like the domains in the National Roadmap for Large-scale Research Facilities):

- Life Sciences and Health (LSH)
- Natural and Engineering Sciences (NES)
- Social Sciences and Humanities (SSH)

Besides researchers and the aforementioned local DCCs, other parties will also be important within these three domains:

- Institutions that have expertise in supporting researchers (such as DANS, NLeSC);
- Research infrastructures (such as Health-RI, NPOS-NL, ODISSEI);
- Partnerships (for example, 4TU.ResearchData, DTL);
- Strategic initiatives and councils.

All of these parties will be involved in the networks. Over the next ten years, NWO will invest about 2.4 million euros per year. This will give a boost to the establishment and support of the TDCC organisations, and the funding can be used to support concrete projects within the digital needs that have been identified.

https://www.nwo.nl/en/researchprogrammes/implementation-plan-investments-digital-research-infrastructure

health RI
*enabling data driven health*

Health-RI is the Dutch national initiative to facilitate and stimulate an integrated health data infrastructure accessible for researchers, citizens, care providers and industry. It will enable optimal use of health data, samples and images, a learning healthcare system and accelerate personalized health.

Health-RI is the Dutch non-profit foundation supporting a public private partnership of organizations that want to realize a national health-data infrastructure. More than 70 organizations involved in health research and care endorse our efforts.

health RI
*enabling data driven health*

https://www.health-ri.nl/

## How we operate

The strategy of Health-RI follows three lines of action

1. Collective action: optimizing the conditions for building and maintaining a national health data infrastructure;
2. Building a national health data infrastructure: fostering and facilitating initiatives and collaborations directed at developing health data infrastructure;
3. Providing mature services: supporting researchers and data managers by making infrastructure services, tools and data easy to locate, access and use;

## Our mission

Build an integrated health data research infrastructure accessible for researchers, citizens and care providers.

Facilitate and foster the optimal use of knowledge, tools, facilities, health data and samples to enable a learning healthcare system and accelerate sustainable and affordable personalized medicine and health.

← Communities

### Data Stewardship Community

The Health-RI Data Stewardship Community (DSC) will establish a community hub for health data stewards to facilitate collaboration.

In Health-RI, the Data Stewardship Community (DSC) unites healthcare data stewards in national collaborations, so each institute does not have to reinvent the wheel locally

# DUTCH NATIONAL PLATFORM IN INTEGRATED DIGITAL LIFE SCIENCES

We assemble public and private partners to jointly establish a digital competence centre on biological and molecular data in support of the Dutch health and biosciences communities.

We connect data generation facilities, data and computational infrastructure, data collections, software and models, data stewardship practices and FAIR-compliant standards.

The platform connects experts in digital life sciences and enables easy access to relevant data and tools, and supports advanced computational analysis and modelling via bioinformatics and computational modeling techniques, including machine learning and artificial intelligence.

## DIGITAL LIFE SCIENCE COMMUNITIES

DTL DIGITAL LIFE SCIENCES

elixir NETHERLANDS

BioSB research school

TECHNOLOGY FACILITIES

FAIR DATA STEWARDSHIP

LIFE SCIENCES DATA INFRASTRUCTURE

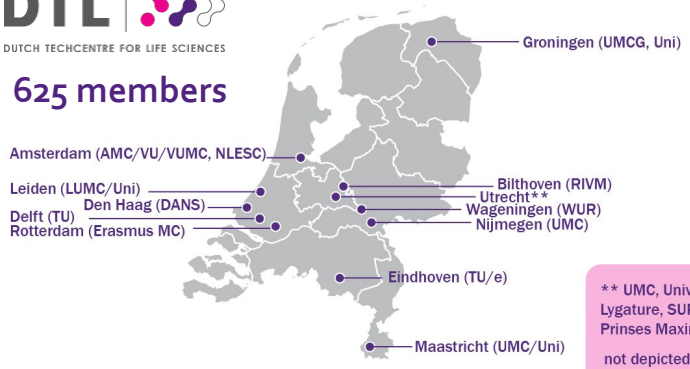
BIOINFORMATICS & SYSTEMS BIOLOGY

# Data Stewardship Interest Group

A professional community for Data Stewards and alike in "Life Sciences"

DTL DUTCH TECHCENTRE FOR LIFE SCIENCES

## 625 members




** UMC, University Utrecht, Lygature, SURF, The Hyve, Prinses Maxima Centrum

not depicted: Ontoforce (Ghent, Belgium)

Facilitating communities is an essential element of professionalising data stewardship and capacity building

- Exchange experiences and good practices
- Jointly tackle data challenges

For many years, DTL facilitates the Data Stewards Interest Group (DSIG), with regular meetings (next one in September) and a vibrant (slack channel) community for data stewards and like-minded in the Netherlands **and beyond (welcome to join!)** to share experiences and foster the (Dutch) national implementation of data stewardship

# Dutch roadmap towards professionalising data stewardship

## Creating FAIR data implies

Making well informed choices about

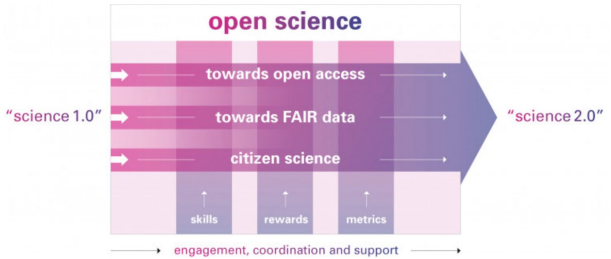
- … the number of data stewards
- … where in the organisation
- … and with what competences
- … including training

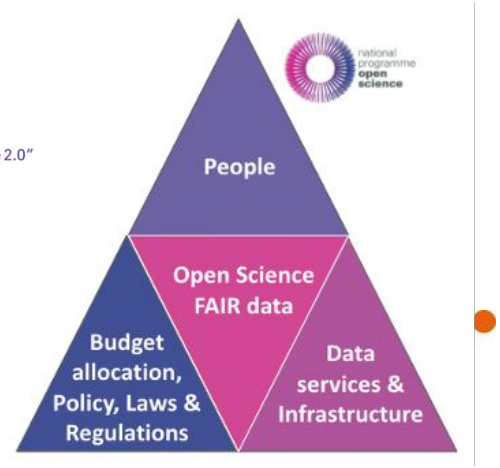
## Realising data steward capacity implies

- Changes in research-performing organisations, including HR management
- National funds for science and institutional budgets
- Coordinated action of research institutes, policy makers and research-funding organisations for the required changes

## 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 (NPOS F) links to the second key area, together with a report on the Dutch data infrastructure and services landscape (NPOS E)
- NPOS F: for a quick overview, we advise to read the preambule, executive summary and Chapter 7



# National Coordination Point Research Data Management

The National Coordination Point Research Data Management (LCRDM) is a national **network** of experts in the field of research data management (RDM).

The LCRDM forms the link between **policy and solution**. Close consultation between educational and research institutions is crucial for this. Within LCRDM, experts work together to put RDM subjects on the agenda that are too big for one institute to tackle and need a national plan of action.

LCRDM brings together research support services, policy makers, ICT specialists, managers of diverse research institutes and research funding organizations. The LCRDM coordinates and facilitates the collaboration between the various RDM stakeholders.

https://www.lcrdm.nl/en

## Pool of Experts

The LCDRM also organises meetings on RDM themes, such as November 3, 2020 in Maastricht on adoption and implementation, training and competences of data professionals, and RDM in times of Corona.

## RDM maillijst

Are you organizing a symposium, do you have a vacancy, do you want to discuss something with colleagues: use this list. Everyone involved in RDM is welcome. To

Do you have RDM questions that could benefit from a national approach? You will find our working method on the Task groups page.

## RDM in the Netherlands

## Glossary

**TG Software Archiving**

Recommendations on encouraging of software archiving.

Pitch and team

**TG FAIR enabling**

Principles on the basis of which an organisation could be assessed on the degree of 'FAIR' enabling.

Pitch and team

**Digital consent**

A legal and ethical framework for obtaining digitized informed consent.

Pitch and team

**Privacy risks**


Implement and maintain a DPIA per research scenario, so that a scenario can be selected for new research proposals.

**Data collaboration**


Inventory of trans-institutional research projects (use cases), identification of bottlenecks and incompatible policy and description of implications and solutions.

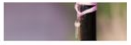
Pitch and team

**"23 Things" adoption**

A wider adoption of the existing RDA (Research Data Alliance Europe) guide "23 Things - Libraries for Research Data".

Pitch and team

Anonymisation
√2019



Pseudonymisation
√2019

Data Curation
√2019

**Task groups**

The task groups are composed by the advisory group for each submitted issue. The team members are drawn from the pool of experts by means of a pitch, and possibly supplemented with experts. The task groups are ideally supervised by a process supervisor or consultant. The motivation of the task group members is: 'I also have to do something with my subject in my own working environment'.

Read more about pitching new task groups.

VRE/Workspaces
√2019


Data Stewardship
√2019

"23 Things" Grant
√2019

Working groups 2015 - 2017

# 2021 DCC Spring Training Days

May 20 — **Engagement: connecting researchers and data stewards**

June 3 — **Organising your data and software with a reproducible workflow**

June 17 — **The role of good RDM in accelerating scientific progress**

from 13:00-17:00 (CEST)
via Zoom

Landelijk Coördinatiepunt Research Data Management

DCC implementation network

## Local Digital Compentence Centres

DTL Dutch Techcentre for Life Sciences

umcg

health RI enabling data driven health

nationaal programma open science

DCC implementation network

Landelijk Coördinatiepunt Research Data Management

SURF

Universiteit Leiden

netherlands eScience center

Hogeschool van Amsterdam

Universiteit van Amsterdam

UMC Utrecht

VU Vrije Universiteit Amsterdam

Saxion Hogeschool

TU/e Eindhoven University of Technology

TU Delft

Building the social and technical bridges to enable open sharing and re-use of data

RDA EU RDA US CONTACT US LOGIN REGIST

ABOUT RDA GET INVOLVED GROUPS RECOMMENDATIONS & OUTPUTS RDA FOR DISCIPLINES PLENARIES & EVI

Home » Working and Interest Groups » Interest Group » Education and Training on handling of research data IG

IG

# Education and Training on handling of research data IG

Taxonomy:

Posts | Wiki | Events | Repository | Outputs | Charter | Plenaries | Members

Group Status: IG Established

IG

## ELIXIR Bridging Force IG

Taxonomy: Natural Sciences, Natural Sciences/Biological sciences, Medical and Health Sciences

Posts | Create Wiki index | Events | Repository | Outputs | Charter | Plenaries | Members

Group Status: IG Established

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Status:
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WG

## RDA-COVID19-Omics

Taxonomy: Medical and Health Sciences

Posts | Wiki | Events | Repository | Outputs | Case Statements | Plenaries | Members

Group Status: WGs Getting started (~0-6 months after RDA endorsement)

**Status:** Recognised & Endorsed
**Chair (s):** Natalie Meyers, Rob Hooft, Juan Bicarregui

This is the subgroup of the RDA-COVID-19 working group focusing on **Omics**.

- **Useful Information for RDA COVID-19 Omics Subgroup**

**Omics subgroup priorities:**

1. A set of guideline documents, highlighting the primary data [and software/c
   resources in Omics research, addressing different data types and cross-cutti
2. Resource [data and software/code] List(s) in Omics.
3. A Decision Tree tool to facilitate navigation to specific Omics Resources.

RESEARCH DATA ALLIANCE

**O&A Members** 63

Active Organisational & Affiliate members

**MEMBERSHIP** Members: 10956

Becoming a member of RDA is simple and open to both individuals and organizations

**Register now**

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ABOUT RDA GET INVOLVED GROUPS RECOMMENDATIONS & OUTPUTS RDA FOR DISCIPLINES PLENARIES & EVI

Home » Working and Interest Groups » Interest Group » Professionalising Data Stewardship IG

IG

# Professionalising Data Stewardship IG

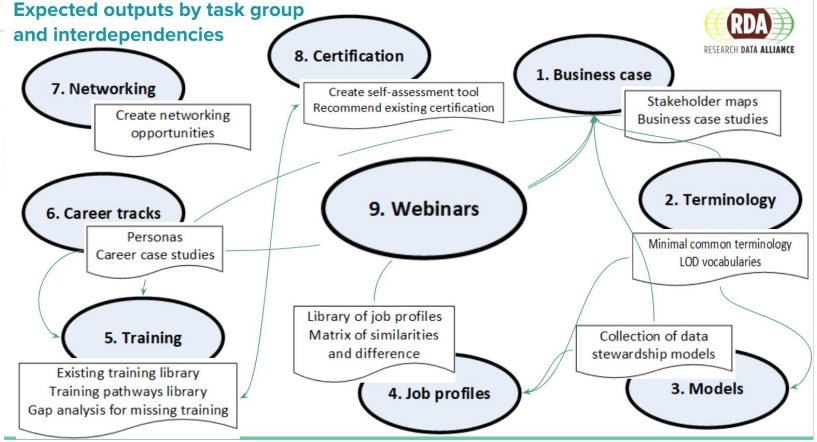
Taxonomy:

Posts | Create Wiki index | Events | Repository | Outputs | Charter | Plenaries | Members

Group Status: Not yet endorsed

## Expected outputs by task group and interdependencies

RDA RESEARCH DATA ALLIANCE



# Takeaways

**After this presentation …**

- take time to dive into the resources in this presentation: look at the reports, tools and training resources
- keep discussing your current/future roles, responsibilities and tasks in your local teams and organisations
- start/participate in data steward communities yourself

# Acknowledgements


- The ELIXIR-NL, DTL and Health-RI team, particularly Celia van Gelder
- ELIXIR-CONVERGE members
- NPOS-F team
- DTL Data Stewards Interest Group (DSIG) and the Health-RI Data Stewardship Community (DSC)
- RDA Professionalising Data Stewardship Interest Group


## Thank you for listening!

Interested to learn more about DTL, Health-RI, ELIXIR-NL and NPOS activities? Contact me via mijke.jetten@dtls.nl

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