

# LEARNFAIR: FAIR trainers community & open educational resources

**Data Stewards Interest Group**  
**Monday September 29, 2025**  
**Maria Vivas-Romero & Fieke Schoots**



# Agenda

- **Introducing LEARNFAIR**
- **Example of the FAIR Lesson Plan**
- **LEARNFAIR survey**
- **Help shape the FAIR trainers community**



# Introducing LEARNFAIR

# Background





**TDCC-LSH project reference ID:** TDCC-LSH Challenge project #7

**Project Status:** Approved by TDCC-LSH Programme board & NWO



**Title:** LEARN-FAIR: Life Science & Health Educational Alignment for Research and Networking in FAIR Data Management

**Key words:** FAIR Data Stewardship, Community Building, Open Educational Resources

**Project lead:** Dr. M.G. (Martijn) Kersloot

**Duration:** 24 months: April 2025 – April 2027

### Responsible institution(s) and department(s):

- Amsterdam UMC (AUMC), Medical Informatics
- Health-RI
- Leiden University Medical Centre (LUMC), Department of Human Genetics
- Maastricht University (UM), DataHub
- Radboud UMC (RUMC), Department of Medical BioSciences

### Public Summary:

The LEARN-FAIR project intends to foster cooperation and knowledge exchange among FAIR (Findable, Accessible, Interoperable, and Reusable data) trainers by establishing a Dutch FAIR Trainers Community. Additionally, the project focuses on identifying training needs for researchers and data stewards, as well as existing educational materials, in order to develop new Open Educational Resources. To ensure that these materials meet the (future) needs of the community, the LEARN-FAIR project combines empirical research with active community engagement.



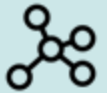
**LEARNFAIR**

<https://learn-fair.nl>

*\*LEARNFAIR is funded by the NWO - TDCC LSH 2023 call aimed at strengthening digital competences in the data-driven life sciences and health domain.*



## Aims



Establish **a community of FAIR trainers** from research performing and supporting organizations



Establish a community-adopted set of **open educational resources** in FAIR Data Stewardship

2 pillars: **empirical research** and **active community engagement**

Lead: Martijn Kersloot (AUMC)

Kick-off meeting 14 April 2025

<https://learn-fair.nl/>





LEARNFAIR

# Life Science & Health Educational Alignment for Research and Networking in FAIR Data Management

## Why LEARNFAIR?

Findable, Accessible, Interoperable, and Reusable



Researchers and support staff are increasingly **required to make data FAIR**



They need **accessible, high-quality training** to effectively do so



FAIR training materials are **fragmented, inaccessible, and often not FAIR** themselves



Trainers can benefit from aligned efforts to **share** and **improve resources**

## Work packages

Community building, engagement & dissemination

Development of a federated infrastructure

Development of educational materials

Identification of existing resources & learning needs



# WP5 Overall Goal:

**The primary goal of this WP is to enhance and complete the 'FAIR Lesson Plan Handbook' by:**

- Refining existing FAIR lesson plans based on feedback from trainers and trainees.
- Develop new educational resources and learning paths informed by a needs and gap analysis (D4.2/D4.3) for specific target audiences.
- Establishing partnerships and intellectual agreements for used content.
- Ensuring all developed materials are Findable, Accessible, Interoperable, and Reusable (FAIR) and sustainable beyond the project's duration, ultimately aiming to improve data management skills and promote the adoption of FAIR principles within the LSH domain.



## The FAIR Lesson Plan Handbook: Open Educational Resources for FAIR Training

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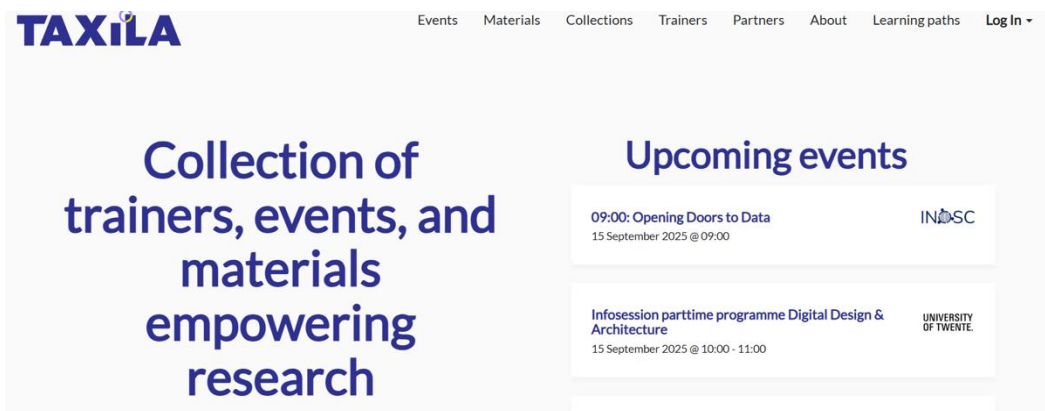
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# FAIR Lesson Plan HandBook: a Community Built tool

# The current landscape of Education on FAIR/RDM



The screenshot shows the TAXiLA website. The header includes a navigation menu with links for Events, Materials, Collections, Trainers, Partners, About, Learning paths, and a Log In button. The main content area features a large heading "Collection of trainers, events, and materials empowering research" on the left. On the right, under the heading "Upcoming events", there are two event listings: "09:00: Opening Doors to Data" by INOSC on 15 September 2025 at 09:00, and "Infosession parttime programme Digital Design & Architecture" by the University of Twente on 15 September 2025 at 10:00 - 11:00.



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Lesson  Open

## FAIR data lecture Molecular and Genetic Epidemiology

Vivas-Romero, Maria (Data manager)<sup>1</sup> ; Vivas-Romero, Maria (Data manager) 

Show affiliations

This lecture delves into the practical application of the FAIR principles (Findable, Accessible, Interoperable, Reusable) across the entire research lifecycle. We will first go through the foundations of the Open Science movement and the connection to the FAIR principles. We will then explore how to implement these principles during planning, data collection, analysis, publication, and archiving.

## A framework for designing training programs on FAIR data

Are you a trainer aiming to teach FAIR data practices to researchers, data stewards, or policy makers? The FAIR Lesson Plan Handbook provides a flexible framework to help you integrate FAIR principles into your curriculum, with resources and pathways for designing effective training programs.



## Explore the lesson plans

With **17** lesson plans available, explore how the FAIR Lesson Plan Handbook can support your FAIR data training goals.

### FAIR generics

7 lesson plans

### Findable data

3 lesson plans

### Accessible data

1 lesson plan

### Interoperable data

3 lesson plans

### Reusable data

1 lesson plan

### FAIR software

1 lesson plan

### Data repositories and FAIR

1 lesson plan

[FAIR Lesson Plan Handbook | FAIR Lesson Plan Handbook](#)



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Contributors

ELIXIR

About



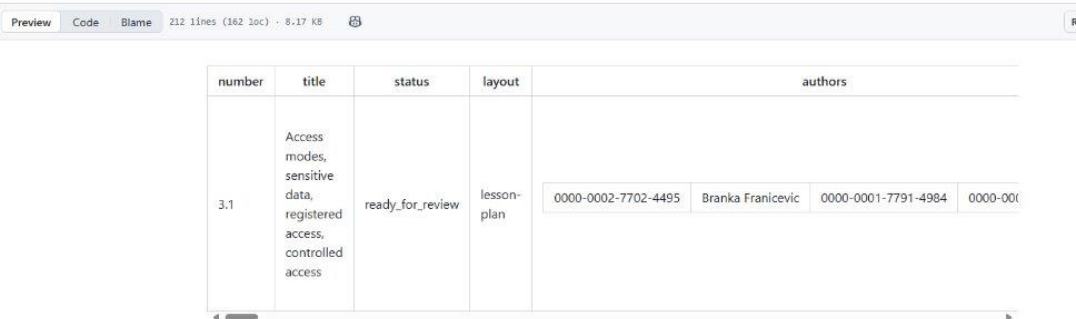
The FAIR Lesson Plan Handbook is licensed under a **Creative Commons Attribution 4.0 International License**, except where otherwise noted.

Built with ETI

# The process behind it: What does the template look like?

The template brings together:

- Topic, definition and scope
- FAIR element(s) (F, A, I and/or R)
- Primary audience(s)
- Learning outcomes
- Summary of Tasks / Actions
- Materials / Equipment
- References
- Take home tasks/preparation
- Lesson plan authors (incl. ORCID)



The screenshot shows a code editor interface with tabs for 'Preview', 'Code', and 'Blame'. The 'Code' tab is active, displaying a table template. The table has columns for 'number', 'title', 'status', 'layout', and 'authors'. The 'authors' column is further divided into four sub-columns for ORCID iDs. The table contains one row of data.

number	title	status	layout	authors
3.1	Access modes, sensitive data, registered access, controlled access	ready_for_review	lesson-plan	<div>0000-0002-7702-4495</div> <div>Branka Franicevic</div> <div>0000-0001-7791-4984</div> <div>0000-0001-7791-4984</div>

## Topic, definition and scope

**Data Accessibility:** In the Life Sciences, data professionals often define it as the processes and ease with which data can be accessed, retrieved, and have a secondary use when authorized by its original participants and owners. This topic encompasses not only the technical access, but also the format, and documentation that allows for distinct levels of access. In the context of the FAIR principles: "Accessible" means that data should be retrievable by their identifier using a standard communications protocol. This protocol should be open, free, and universally implementable. While data access can be regulated (e.g., controlled or registered access), the protocol itself remains open and free.

## Important or key definitions

**Controlled Access:** Refers to the mechanisms for sharing sensitive or personal data, when it has been properly pseudonymized only after a formal application or approval process. This often involves legal agreements (e.g. Data Sharing Agreements, Data Processing Agreements)

**Registered Access:** A less restrictive form of controlled access, where users register and agree to specific terms of use, often without individual project-by-project approval but still with a clear record of who is accessing data. An example of this, is request access in a Public Repository like



# Why FAIR an almost completed one looks like this:

## Topic 1.1 Why FAIR?

([link to notes for this topic](#))

### Topic, definition and scope

- What is FAIR (FAIRsFAIR lesson plan available "FAIR in a nutshell")
- Who are the stakeholders? Answers to FAIR questions are different for the different stakeholders. (Researcher, organisations, management, society)
- Motivation to implement FAIR: (depends on stakeholder)
  - Why make data Findable?
  - Why make data Accessible?
  - Why make data Interoperable?
  - Why make data Reusable?
- Benefits for different roles/levels (individual researcher benefit vs scientific/discipline knowledge benefit vs societal benefit)
- Incentives (drivers? Requirements by funding bodies (e.g. Horizon 2020, [UKRI](#)), [EOSC](#) )

### FAIR element(s) (F, A, I and/or R)

- All FAIR elements

### Primary audience(s)

- Any researcher, research-affiliated staff, or student of any level generating and working with data for research purposes in any discipline, policy oriented staff and managers.
- Not domain specific and for all types of data that are used to perform research, analysis, archiving and publishing of data
- Not too technical, not too focused on data stewards

### Learning outcomes

After this lesson students:

- can explain the FAIR principles on a generic level;
- understand why you should apply the FAIR principles to your data;
- know of some common issues that prevent data reuse and how FAIR can help;



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No **871075**.

[Link to main \(internal\) document for the FAIR hackathon](#)

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- have an impression of what could go wrong if you don't apply FAIR (horror stories topic overlap).
- Identify what changes are required in your work/group/organisation to facilitate FAIRer data practices.
- Identify the significance of FAIR for the quality of research performance and the required changes in an organisation to facilitate FAIR data management

### Summary of Tasks / Actions

- Introduction to FAIR principles
  - Explanation of each letter (focus on **what** it means) (link to FAIRsFAIR lesson plan <https://zenodo.org/record/5078286> slide 1-19, [The FAIR principles explained - Maastricht University. Make your research data FAIR](#) - Cessda training, NL, [DCC PO FAIR datamanagement](#)).
  - Suggested: DCC PO Publiceren 2022
  - 0:02 / 3:56
  - )
- Generic answer to **why** question - formulate an answer not specific to any stakeholder
  - Making your data FAIR can ([Ten reasons to share your data | Nature Index](#)):
    - Maximise the impact of and engagement with your research, and allow others to continue your legacy by using your data.
    - Save money and other resources by reducing the need for funding bodies from supporting the same research multiple times, thereby freeing up funding for new ideas. This includes research with negative outcomes that were previously not published and thus are not Findable.
    - Ensure your research stays relevant (i.e. actively used/cited by others).
    - Make you and your research more visible both in and outside of your discipline.
    - Encourage professionalism and improve quality control.
    - Contribute back to the scientific community and increase reciprocity.
    - Create more connections between you and other researchers, both in and outside of your discipline.
- Identify common stakeholders related to FAIR-usage and group them in the 3 groups mentioned in the next bullet points (perform (p), facilitate (f) and benefit (b))



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[Link to main \(internal\) document for the FAIR hackathon](#)

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- Researchers (p), scientific publishers (b) and funding agencies (f), suppliers of software for data management, analysis and processing (f), data science community (p) ([link](#) to source of stakeholders)
- Research funders, policy makers (f), coordination fora (f), standard bodies (f, b), research providers (p, f, b), research communities (p, f, b), data service providers (f), data stewards (p, f) ([link](#))
- Society (b)

The [stakeholders](#) (with descriptions) within FAIRsharing might be of direct relevance here. Not only do they include the society, researchers, and research funders/policymakers listed above, but also Research data facilitators, librarians, trainers. Feel free to use the descriptions/definitions here as it might help.

- Why FAIR for different stakeholders:
  - Why FAIR for those who **perform the research**:
    - F - findable
      - Why?
    - A - accessible
      - Why?
    - I - interoperable
      - Why?
    - R - reusable
      - Why?
  - Why FAIR for those who **facilitate the research**:
    - F - findable
      - Why?
    - A - accessible
      - Why?
    - I - interoperable
      - Why?
    - R - reusable
      - Why?
  - Why FAIR for those who **benefit from research**:
    - F - findable
      - Why?
    - A - accessible
      - Why?
    - I - interoperable
      - Why?
    - R - reusable
      - Why?



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# Bringing it all together:

- The FAIR lesson handbook aims to build with a bottom-up approach a set of lesson plans to teach about FAIR
- The FAIR lesson handbook expands this knowledge in Open Educational Resources to enhance their sustainability
- The FAIR lesson handbook aims to be adopted and built by and for the community of trainers in the Netherlands and possibly beyond

## Lesson content

LO	Activity	Time	Type	Level
	🕒 Before the lesson			
1	Have participants read the FAIR Cookbook's <a href="#">Introducing the FAIR Principles</a> to get an idea of what the FAIR principles entail.	20 min	individual exercise	★ ★ ★



- |                                                     |                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------|
| 1. Why FAIR?                                        | 9. Persistent identifiers (PIDs)                                       |
| 2. FAIR vs. open data/science                       | 10. Metadata standards                                                 |
| 3. Data Life Cycle approach to FAIR: FAIR by design | 11. Access modes, sensitive data, registered access, controlled access |
| 4. FAIR and/in institutional data policies          | 12. Linked data and semantic web technologies                          |
| 5. Defining FAIR Objectives for a project           | 13. M4M workshop                                                       |
| 6. Defining FAIR Objectives for Organisations       | 14. Data vocabularies and ontologies                                   |
| 7. Policies and consent                             | 15. FAIR Data visiting                                                 |
| 8. Data/Repository discovery                        | 16. FAIR Software                                                      |
|                                                     | 17. Data Repositories and FAIR                                         |

**Box 2.** New lesson plans in the FAIR Lesson Plan Handbook, tailored to life science organizations

FAIR Lesson Plan Handbook

Lesson plans About Contribute GitHub Search

FAIR generics

- Why FAIR?
- FAIR vs open data/science
- Data Life Cycle approach to FAIR: FAIR by design
- FAIR and/in institutional data policies
- Defining FAIR Objectives for a

## Why FAIR?

General Prerequisites Learning outcomes

Status: Ready for review

FAIR elements: Findability Accessibility Interoperability Reusability

Making research data FAIR (Findable, Accessible, Interoperable, and Reusable) is of great importance in a data-driven world. Knowledge of the FAIR data principles and their practical application is crucial for maximising the value of data and resources, leading to more efficient research and increased knowledge sharing. By knowing of and adopting the FAIR principles, organisations and researchers can reach new levels of data and resource impacts, leading to numerous benefits for both the researcher community and society at large.



# Survey

# The Aim and Timeline

## Aim:

To collect information about training materials that cover aspects related to the FAIR (Findable, Accessible, Interoperable, and Reusable) principles.

To identify institutions and groups involved in developing or reusing such materials.

## Timeline:





# Structure

- Part I (This Survey): This first part focuses on identifying current gaps in training on FAIR. It should take about 5-7 minutes to complete.
- Part II (Follow-up Survey): For respondents who have created or used training materials, we will send a link to a second survey. This part focuses on cataloging specific resources. We estimate it takes 5-10 minutes to describe each training resources
- Part III: Conversations- Interviews

# The Survey

- Take our short survey here: <https://learn-fair.nl/survey>



# The survey outcomes

- Survey status: Launched September 19th
- Participation: 18 responses/13 with a willingness to participate further and or fill out Survey II
- Respondents' demographics: Netherlands, E.U and outside E.U
- Closing day: November 30th 2025



Join at [menti.com](https://menti.com) | use code 6444 9436



**Your turn: help shape the FAIR trainers  
community**

## How do you describe your involvement in training on FAIR?

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trainer in RDM

Training creator, teacher, writer

I coordinate at a domain, national and international level

I have contributed with FAIR related materials in the past

Project Coordinator on FAIR projects

Organizing training, providing training and also developing content

Facilitator

Previously: giving introductions RDM to researchers and students as data steward  
Now/future: training data stewards within RDNL :)

Coordinator of trainings

Sporadic for systematic trainings; very often one on one trainings/conversations on FAIR

Training creator and teacher

Researching about trainers in my organization

I give presentations/workshop about FAIR

I'm not (yet) involved



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## What challenges do you face in training on FAIR?

9

12

There are too many resources hard to point at the most useful ones

Hard to make FAIR principles very practical in training

Applicability

There is a lot out there, and most of it is basic/entry-level. How to find the good quality content? Also: nice exercises / interactivity in training is not always easy to find examples for

Tailor general materials to specific disciplinary challenges

Teaching everything fast and efficiently

Different levels of understanding of FAIR

How to keep audiences engaged and follow our trainings

getting lab heads to get their research groups to implement FAIR practice

Lack of real life (success) examples of data reuse.

Actual commitment from trainees

I could help reviewing content



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## What could you bring to a community of FAIR trainers?

6

8

Teaching about qualitative data and the farification of it

Link to FAIR Metroline, FAIR cookbook and RDMkit for content (what to teach about)

Knowledge of 3PFF

example success story in fair (life science)

how FAIR is linked to the overall RDM best practices

Examples of challenges in applying Fair

Learning path experience (DS, but maybe we need a Training LP as well?)

Strategies for engaging audience with topic



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## What would make it interesting for you to join a FAIR trainers community ?

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12

Hearing examples from other DS.

exchange of materials, resources, learn experience

Alignment between institutions on RDM-related training

Knowing what is out there in terms of RDM-related training

Actual implemented lesson plans

Share materials not to reinvent the wheel

not sure i could commit. my fair-dedicated time is limited and there are already many fair events i need to attend locally in my center

Working on products that we can use now and in the long term

Extend network

FAIR in practice, get away from "FAIR is scary"

if clear examples of FAIRified data are showcased then I'd always show

As trainers the more we work together the more time we save





The first LEARNFAIR community event would be worthwhile for me if I can...?

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Hear how others approach training in FAIR



Collaboratively work on materials or course design



Present my best practices



Find buddies to team up with



Learn more about the FAIR lesson plans



Discuss Open Educational Resources



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## Other topics, activities or recommendations for the FAIR trainers community?

5

7

Not duplicate efforts, so shout out and collaborate with other countries and domains

Make the project sustainable effort

Add AI-element,

Include a bit of information about the Barcelona Declaration on Open Research Information?

Bring FAIR training at Bachelor/Master level

Adapt FAIR trainings to students (if whitening the scope)

It would be nice to hear examples form fair strategies in specific disciplines



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# Help shape the future of FAIR data training

**Save the date!**

**19 November, afternoon, Utrecht**

**LEARNFAIR first FAIR trainers community meeting**

# Thank you



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Want to learn ~~FAIR~~ more? [learn-fair.nl](https://learn-fair.nl)



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