

# WG Exposing Data Management Plans - RDA 13th Plenary meeting

<https://rd-alliance.org/wg-exposing-data-management-plans-rda-13th-plenary-meeting-0>

Collaborative session notes: [https://docs.google.com/document/d/1bRQyKTKBTTyc8HxbZRjvtcvif3S6Nc\\_IHW892ijiiR8/edit](https://docs.google.com/document/d/1bRQyKTKBTTyc8HxbZRjvtcvif3S6Nc_IHW892ijiiR8/edit)

# The FAIR Funder Pilot

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[go-fair.org](http://go-fair.org)



## References for The FAIR Funder Pilot

- **On Arxiv** <https://arxiv.org/abs/1902.11162>
- **On the OSF** <https://osf.io/hyvfs/>
- **M4M Workshops** <https://www.go-fair.org/resources/go-fair-workshop-series/metadata-for-machines-workshops/>
- **The DS Wizard** <https://ds-wizard.org>

## From the WG webpage:

<https://rd-alliance.org/wg-exposing-data-management-plans-rda-13th-plenary-meeting-0>

Implementation and adoption is currently hampered by two problems:

- A lack of **standards** for expression and interchange of DMPs
- **Insufficient understanding** of the needs of users and the benefits and risks of different modes of action

Plenary 11 established a focus for the WG efforts to catalogue ... use cases in two areas;

- Integration: connecting DMP processes into the **research workflows** involved in implementing the plan
- Evaluation: use cases for researchers, institutions and funders to **review** DMPs and their outcomes

# The FAIR Funder

Funders widely endorse:

(1) DM and DS planing

(2) FAIR research outputs

However, both objectives require **advanced skills**, usually lacking for both *Funder* and *Grantee*.

Hence, it is typically difficult for the funder to **require** FAIR data stewardship planing, and likewise difficult for the grantee to **comply**.

# The FAIR Funder

## Participation:

- **Open**
- **Voluntary (GO FAIR Rules of Engagement)**
  - **Commitment to FAIR Principles** Sci. Data 3:160018 doi: 10.1038/sdata.2016.18 (2016)
  - **Commitment to “no vendor lockin”**



# The FAIR Funder pilot programme to make it easy for funders to require and for grantees to produce FAIR Data

P. Wittenburg, H. Pergl Sustkova, A. Montesanti, S. M. Bloemers, S. H. de Waard, M. A. Musen, J. B. Graybeal, K. M. Hettne, A. Jacobsen, R. Pergl, R. W. W. Hooft, C. Staiger, C. W. G. van Gelder, S. L. Knijnenburg, A.C. van Arkel, B. Meerman, M. D. Wilkinson, S-A Sansone, P. Rocca-Serra, P. McQuilton, A. N. Gonzalez-Beltran, G. J. C. Aben, P. Henning, S. Alencar, C. Ribeiro, C. R. L. Silva, L. Sayao, L. Sales, V. Veiga, J. Lima, S. Dib, P. Xavier, R. Murtinho, J. Tendel, B. F. Schaap, P. M. Brouwer, A. K. Gavai, Y. Bouzembrak, H. J. P. Marvin, A. Mons, T. Kuhn, A. A. Gambardella, R. de Miranda Azevedo, V. Muhonen, M. van der Naald, N. W. Smit, M. J. Buys, T. F. de Bruin, F. Schoots, H. J. E. Goodson, H. S. Rzepa, K. G. Jeffery, H. P. Shanahan, M. Axton, V. Tkachenko, A. D. Maya, N. K. Meyers, M. Conlon, L. L. Haak, E. A. Schultes

*(Submitted on 26 Feb 2019 (v1), last revised 6 Mar 2019 (this version, v2))*

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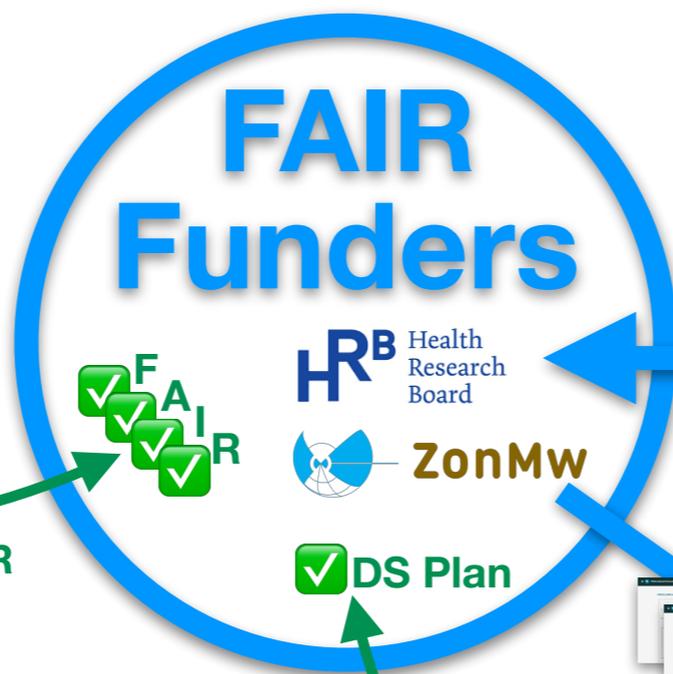
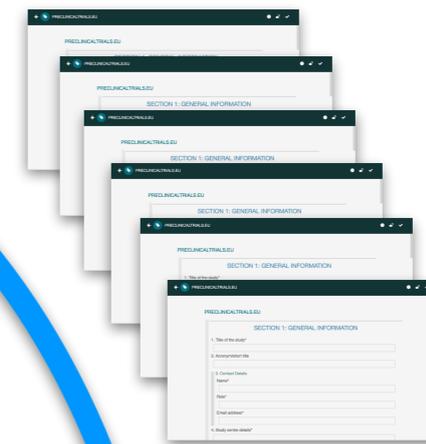
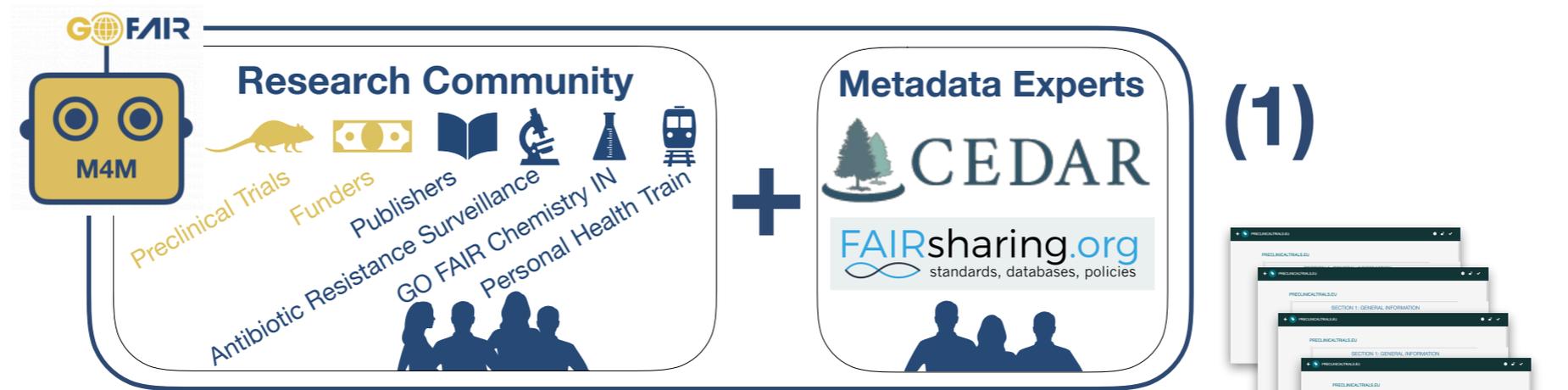
## References & Citations

- [NASA ADS](#)

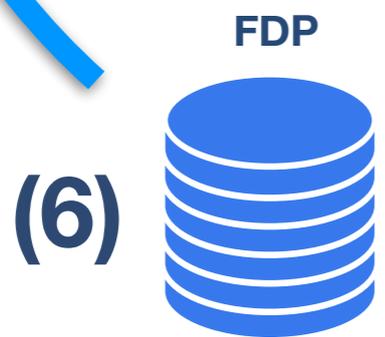
## Google Scholar

Bookmark [\(what is this?\)](#)





**(4)**



*Funders receive FAIR Matu evaluation certificates.*

*Funders receive approval of FAIR DS Plan from research institution data stewards.*

**(6)**

**(5)**

**(7)**

The FAIR Funder Components: <https://www.hrb.ie>

The FAIR Funder Components: <https://www.zonmw.nl/nl/>

The screenshot shows the ZonMw website interface. At the top left is the ZonMw logo. To the right are navigation links: 'Mijn ZonMw/ProjectNet', 'Vacatures', 'Over ZonMw', 'Veelgestelde vragen', 'Contact', and 'English website'. A search bar contains the text 'Zoeken door de website'. Below this are three main menu items: 'Subsidies', 'Onderzoek & resultaten', and 'Actueel'. The main banner features a photograph of a person in a lab setting with the text 'ZonMw stimuleert gezondheidsonderzoek en zorginnovatie' and a 'Lees verder' link. Below the banner is the HRB Health Research Board logo and a navigation menu with items: 'Funding', 'Data collections & evidence', 'Publications', 'Success stories', 'News', and 'About'. A search icon is also present. The bottom section has the text 'Research. Evidence. Action.' and a 'See latest news' button. At the very bottom, there is a section titled 'I want to' with four buttons: 'Find a grant', 'Find a publication', 'Find data', and 'Visit drugs library', each with a right-pointing arrow.

- Long history of DMP/ DSP
- Moving toward FAIR maturity indicators

- History of Open Science
- FAIR DS Training
- Moving toward 5% project funding, eligible for FAIR DS

The FAIR Funder Components: <https://www.hrb.ie>

The FAIR Funder Components: <https://www.zonmw.nl/nl/>

The screenshot shows an Eventbrite event page. At the top, there is a navigation bar with the Eventbrite logo, a search bar, and links for 'BROWSE EVENTS', 'HELP', 'SIGN IN', and 'CREATE EVENT'. The main event card features a background image of a brick building with snow on the roof. The event title is 'Data FAIRification for Data Stewards' by Phortos Consultants, scheduled for June 25th with a price of €1,875.50. A green 'TICKETS' button is visible. Below the card, the event details are organized into sections: Description, Date and Time, and Location. The description notes that the event is co-funded by the Irish Health Research Board and the GO FAIR Foundation, and is provided by Phortos Consultants. An important note states that the course has a maximum of 18 participants, with only 4 tickets left. The location is Poortgebouw, 10 Rijnsburgerweg, 2333 AA Leiden.

**Eventbrite** Search for events BROWSE EVENTS HELP SIGN IN CREATE EVENT

**GO FAIR** Foundation Office building (venue)

JUN 25

**Data FAIRification for Data Stewards**

by Phortos Consultants

€1,875.50

TICKETS

**DESCRIPTION**

**Data FAIRification for Data Stewards**

Co-funded by the Irish Health Research Board and in collaboration with the GO FAIR Foundation

Provided by Phortos Consultants

**IMPORTANT NOTE:** this course will have a maximum of 18 participants; 14 seats have already been taken so there are only 4 tickets left.

**Introduction**

FAIR Data is data that is Findable, Accessible, Interoperable and Reusable by computers. This course provides an introduction to the FAIRification of

**DATE AND TIME**

Mon, Jun 25, 2018, 9:30 AM –  
Fri, Jun 29, 2018, 4:00 PM CEST  
[Add to Calendar](#)

**LOCATION**

Poortgebouw  
10 Rijnsburgerweg  
2333 AA Leiden  
[View Map](#)



# Metadata for Machines Workshops

There is no FAIR Data without machine-actionable metadata

[Home](#) › [Resources](#) › [GO FAIR Workshop Series](#) › [Metadata for Machines Workshops](#)

## Resources

- › [RDM Starter Kit](#)
- › [GO FAIR Materials](#)
- › [GO FAIR Workshop Series](#)
  - › [Metadata for Machines Workshops](#)
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## Making it easy for humans to make metadata for machines



Machine-actionable metadata are core to the FAIR Principles. GO FAIR and RDA members have launched the “Metadata for Machines” workshop series (M4M) to assess the state of metadata practices in data-related communities and stimulate the creation and re-use of FAIR metadata standards and machine-ready metadata templates (definitions of metadata categories).

The M4M workshops are agile, hackathon-style events that bring together domain experts with metadata and technical specialists to accomplish 5 objectives:

1. Assess the state of metadata practices in the various scientific communities, look for improvements of the current fragmentation and promote good FAIR compliant practices.
2. Using the FAIR principles as a guide, define essential metadata elements and standards to support F, A, I, and R by machines, drawing on the deep domain knowledge of existing communities.
3. Formulate these decisions as machine-actionable templates in a unified way;

# Metadata for Machines Workshops

The FAIR Funder Components: <https://preclinicaltrials.eu>

## PRECLINICALTRIALS.EU

International register of preclinical trial protocols



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Join

to create a user account

**Preclinicaltrials** aims to provide a comprehensive listing of preclinical animal study protocols.

Preferably registered at inception in order to **increase transparency**, help **avoid duplication**, and **reduce the risk of reporting bias** by enabling comparison of the completed study with what was planned in the protocol.

**Registration** of your study requires you to create an account that is

- Anonymous
- Free of charge
- Has an optional embargo period

This register is web-based, open to all types of animal studies and freely accessible and searchable to all with a [preclinicaltrials.eu](https://preclinicaltrials.eu) account.

The **[registration form](#)** is designed by experts on preclinical animal studies and preclinical evidence synthesis.

Please **[join](#)** us and create an user account, this will provide access to the database and enables you to register your preclinical trial.

Contact us at [info@preclinicaltrials.eu](mailto:info@preclinicaltrials.eu).

# Metadata for Machines Workshops

The FAIR Funder Components: <https://preclinicaltrials.eu>

## PRECLINICALTRIALS.EU

International register of preclinical trial protocols



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- Anonymous
- Free of charge
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The **registration form** is designed by experts on preclinical animal studies and preclinical evidence synthesis.

Please **join** us and create an user account, this will provide access to the database and enables you to register your preclinical trial.

Contact us at [info@preclinicaltrials.eu](mailto:info@preclinicaltrials.eu).

## Section 1. General information

### 1. \* Title of the study

*Enter the full title of the study*

### 2. Acronym/short title

*Enter optional acronym/short title for the study*

### 3. \* Contact details

*Give the name of the main administrative contact for the study*

*Name*

*Role*

*What is the role the main contact in the study (e.g. executive researcher, research group supervisor)?*

*Email address*

*Provide the email address of the main contact*

### 4. \* Study centre details

*Give the details of the institutions where the experiments will be undertaken. Add additional lines if there is more*

# Metadata for Machines Workshops

The FAIR Funder Components: <https://metadatacenter.org/#about>



## CEDAR

Better metadata means better science

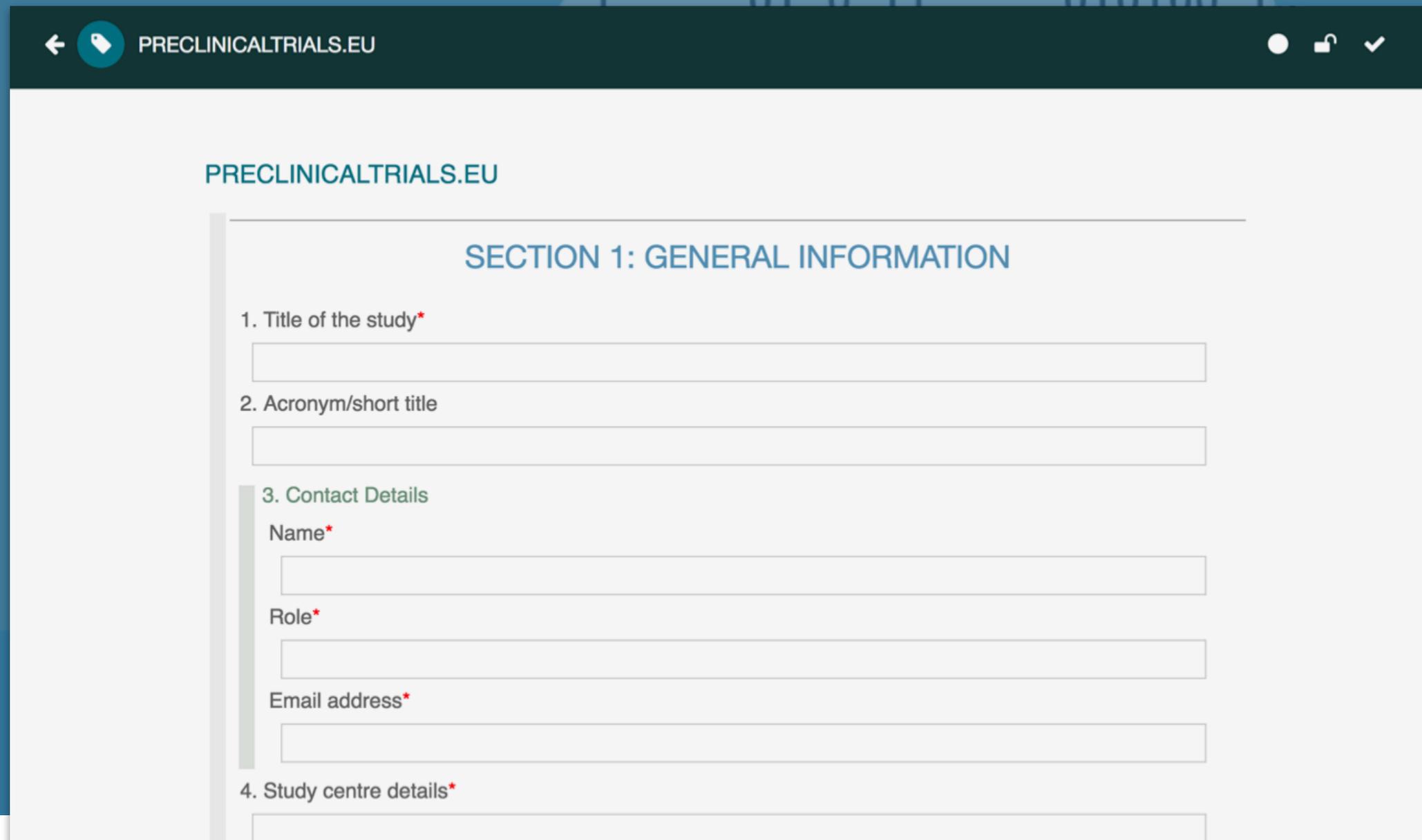
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LEARN MORE



# Metadata for Machines Workshops

The FAIR Funder Components: <https://metadatacenter.org/#about>



PRECLINICALTRIALS.EU

SECTION 1: GENERAL INFORMATION

1. Title of the study\*

2. Acronym/short title

3. Contact Details

Name\*

Role\*

Email address\*

4. Study centre details\*

## CEDAR

means better science

WATCH VIDEO

LEARN MORE

# Metadata for Machines Workshops

The FAIR Funder Components: <https://fairsharing.org>

**FAIR**sharing.org  
standards, databases, policies

 Search all of FAIRsharing

Standards

Databases

Policies

Collections

Add/Claim Content

Stats

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A curated, informative and educational resource on data and metadata *standards*, inter-related to *databases* and data *policies*.

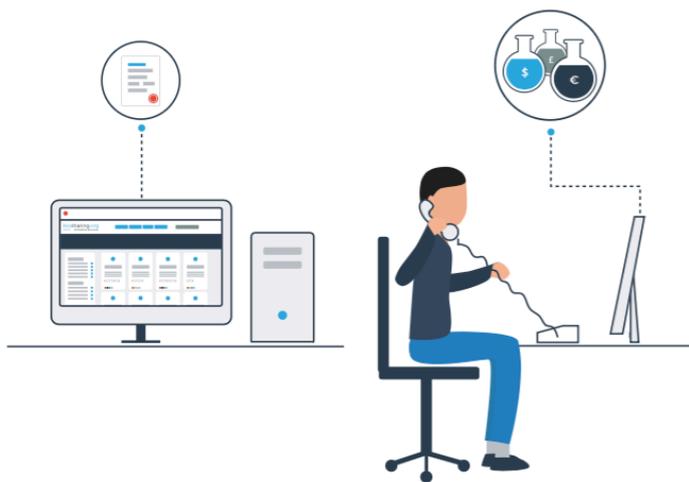
## HOW CAN WE HELP?

We guide consumers to discover, select and use these resources with confidence, and producers to make their resource more discoverable, more widely adopted and cited.

### Journal editors & publishers

Create and maintain an interrelated list of citable standards, databases and repositories to recommend to your authors, users or their community, and revise this recommendation over time...

[\[read more\]](#)



# The FAIR Funder Components: <https://www.go-fair.org/resources/go-fair-workshop-series/metadata-for-machines-workshops/>



+



=

## Metadata templates

- community standards
- machine-actionable
- registered/reusable

[Go to App](#)



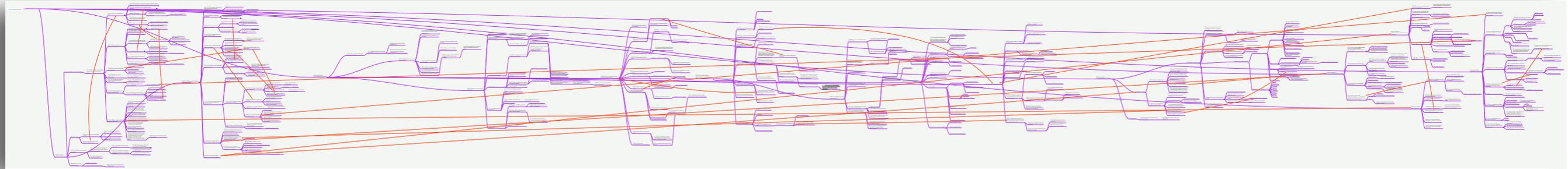
Smart Data Management Plans for FAIR Open Science  
For Serious Researchers and Data Stewards

**Robert Pergl**



## ELIXIR Data Stewardship Knowledge Model

<https://github.com/DataStewardshipWizard/ds-km>

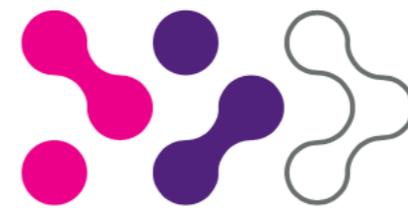


4 m



**Rob Hooft**

**DTL**



DUTCH TECHCENTRE FOR LIFE SCIENCES

Data cycle step 1:  
Design of experiments

1/33. (1.13) Will you be storing samples?

Reference data

1/29. (1.12) Will reference data be created?

For use of reference data, see branch in existing data

1/30. (1.12.1) What will the IP be like?

1/31. (1.12.2) How will you maintain it?

1/32. (1.12.3) How will the release schedule be?

34. (1.13.1) Where will information about samples be stored? Biobank information system.

For questionnaires see "experimental data"

A34-1. (del) Will you start a new collection?

A34-2. (1.13.2) Will your data and samples be added to an existing collection?

35. (del) How will you make sure your biobank will be properly represented in relevant Catalogues =

36. (del) Do you consult the owners of the biobank?

37. (del) Does the biobank adhere to the FAIR principles?

(del) Will you be using questionnaires?

Use building blocks?

Are you collecting nutrition data?

Will you be using a food frequency questionnaire?

LS1/42. Will you couple existing (biobanks) data sets?

LS1/43. Will you use deterministic couplings?

LS1/49 Will you use probabilistic couplings?

LS1/44. Will you be using a ttp? What is the procedure followed? Where will what data be sent? Did a legal advisor look at these?

LS1/45. Is consent available for the coupling?

LS1/46. How will you check whether coupled data are representative of your goal population?

LS1/47. What is the goal of the coupling: more data about the same subjects (intersection, enrichment) or getting more subjects (Union)?

LS1/48. What variable(s) will you use for coupling?

Will the coupling potentially create new privacy issues (e.g. Potential for re-identification or making personal information more sensitive, such as adding location data)?

Verify that you have permission for such coupling.

20. (1.11) What/how/who will integrate existing data

23. (1.11.2) Do you need integrate or to link to a different type of data?

24. (del) Does that need a project plan?

25. What will you do if the coupled data is updated?

26. What will you do if the format is changed?

27. Are conversions needed?

28. Link or Join? Allowed?

1/81. Will you use any data that needs to be made computer readable first?

Any such data needs to be made available to others too.

21. (1.11.1) Will you need to add data from literature?

22. (1.11.2) Text mining?



**Current Phase**

Before Submitting the Proposal

- Design of experiment ✓
- Data design and planning ✓
- Data Capture/Measurement ✓
- Data processing and curation ✓
- Data integration ✓
- Data interpretation ✓
- Information and insight ✓
  
- Summary Report

## Design of experiment

Before you decide to embark on any new study, it is nowadays good practice to consider all options to keep the data generation part of your study as limited as possible. It is not because we can generate massive amounts of data that we always need to do so. Creating data with public money is bringing with it the responsibility to treat those data well and (if potentially useful) make them available for re-use by others.

### Is there any pre-existing data? !

Are there any data sets available in the world that are relevant to your planned research?

- Desirable: *Before Submitting the DMP*
- Data Stewardship for Open Science: *atq*

- No
- Yes ☰

### Will reference data be created? !

Will any of the data that you will be creating form a reference data set for future research (by others)?

- Desirable: *Before Submitting the DMP*
- Data Stewardship for Open Science: *rbz*

- No
- Yes ☰

### Will you be storing samples? !

- Desirable: *Before Submitting the DMP*
- Data Stewardship for Open Science: *kuz*

# The FAIR Funder Components: <https://ds-wizard.org>



- **Open Source**
- **Machine-readable**
- **Customizable knowledge model & DM templates**
- **Customizable output formats for humans**
- **Links & tooling can be embedded**

Can be localized by:

- Research Community
- Organization
- Policy / Legal Requirements
- Funding Requirements

A screenshot of a web browser displaying the 'PRECLINICALTRIALS.EU' website. The page title is 'PRECLINICALTRIALS.EU'. The main heading is 'SECTION 1: GENERAL INFORMATION'. The form contains several input fields:

- 1. Title of the study\* (text input)
- 2. Acronym/short title (text input)
- 3. Contact Details
  - Name\* (text input)
  - Role\* (text input)
  - Email address\* (text input)
- 4. Study centre details\* (text input)

## DS Wizard + FAIR Metrics Hackathon July 2-4 2018



Data Stewardship Wizard

common ELIXIR (Common ELIXIR Knowledge Model, 1.0.0)

Save

KM Editor

KM Packages

DS Planner

### Data design and planning

Answered: 54/54



Metric	Measure	
Findability	0.33	
Accessibility	0.25	
Interoperability	0.63	
Reusability	0.86	
Good DMP Practice	0.40	
Openness	0.00	



Data Stewardship Wizard

common EL

 KM Editor

 KM Packages

 DS Planner



## Events

[Home](#) › [Events](#) › The FAIR Wizard of Science Europe

### The FAIR Wizard of Science Europe

Jan 17 2019

The Data Stewardship Plan – those manifold decisions required to achieve FAIR data – has been identified as a fulcrum enabling the adaption of FAIR best practices among data producers. It is this “Data Stewardship Moment” where technology and standards, the researcher, the publisher, and the funder come together, driving infrastructure developments leading to an Internet of FAIR Data and Services. In this workshop / hackathon, the development team of the Data Stewardship Wizard (<https://ds-wizard.org>) and representatives of the Science Europe **Initiative for the Alignment of Research Data Management Policies** will work together to help align the DS Wizard knowledge model with the Science Europe template. The goal for the workshop is an Open Source, machine-actionable data stewardship planning tool exploiting the consensus recommendations of Science Europe.



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# The FAIR Funder Components: <https://github.com/DTL-FAIRData/FAIRDataPoint/wiki/FAIR-Data-Point-Specification>



Search or jump to...

Pull requests Issues Marketplace Explore



DTL-FAIRData / FAIRDataPoint

Watch 14 Star 14 Fork 7

Code Issues 4 Pull requests 1 Projects 0 Wiki Insights

## FAIR Data Point Specification

kburger edited this page on Oct 22, 2018 · 22 revisions

The specification moved to a separate repository at <https://github.com/DTL-FAIRData/FAIRDataPoint-Spec/>. This page is considered an archived version.

### Introduction

### Purpose

The purpose of this document is to specify the FAIR Data Point (FDP) software. This document includes requirements, architecture and design of the FDP software. This specification is primarily intended to be a reference for developing the first version of the FDP software by the DTL FAIR engineering team.

Pages 4

Find a Page...

- Home
- Active FAIRDataPoints
- Configuration
- FAIR Data Point Specification**

Clone this wiki locally

<https://github.com/DTL-FA>



## FAIR Evaluation Services

Resources and guidelines to assess the FAIRness of digital resources.

Fork Star 52 Watch 30



### Import Maturity Indicators

Import Maturity Indicators as YAML [smartAPI](#) interface annotation

Get started



### Create collections

Assemble Maturity Indicators into community centered collections

Get started



### Evaluate resources

Evaluate resources FAIRness against Maturity Indicator Collections

Get started

RDA / GEDE Webinar on Maturity Indicators for FAIRness and Certification of Repositories  
22 March 2019

<https://www.rd-alliance.org/gede-webinar-maturity-indicators-fairness-and-certification-repositories>

The FAIR Funder Components: <https://gofairfoundation.org>

The FAIR Funder Components: <https://fairbearservices.com>



# GO FAIR FOUNDATION supports Internet of FAIR Data & Services

About



Purple Polar Bears

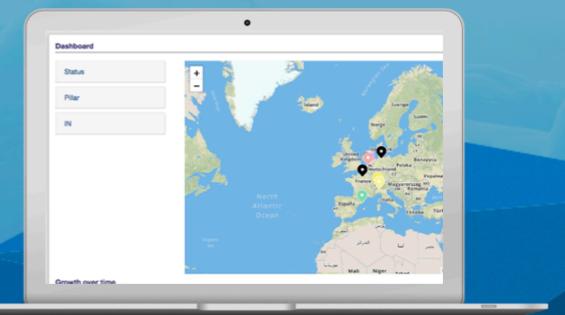
## The Software partner for the FAIR Community.

- Empowered by Purple Polar Bear

Looking to be FAIR? Fair Bear Services can help you with  
custom, open source and off the shelf data management solutions.

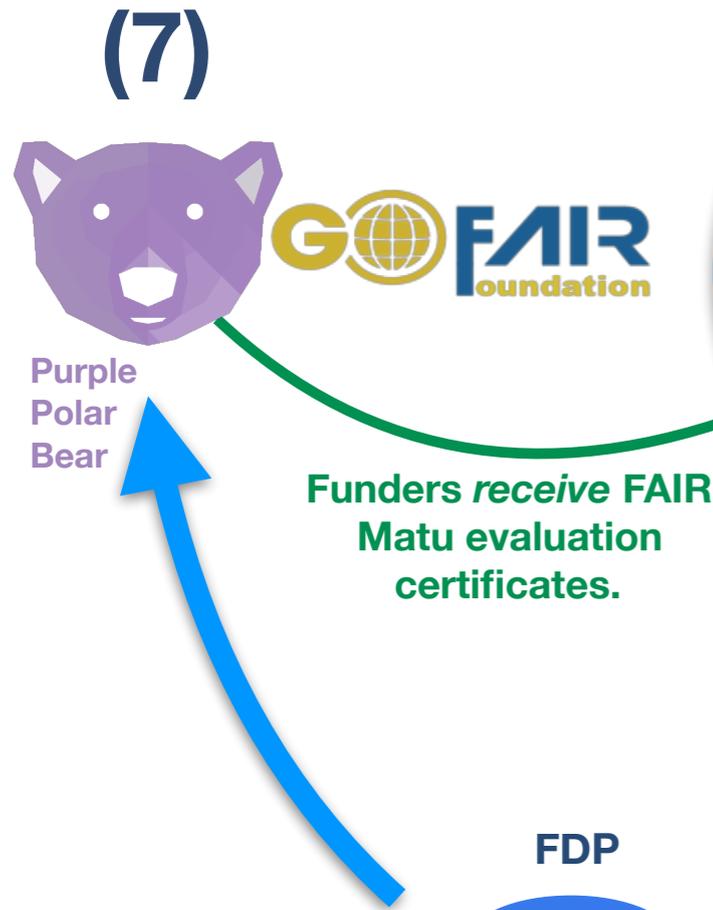
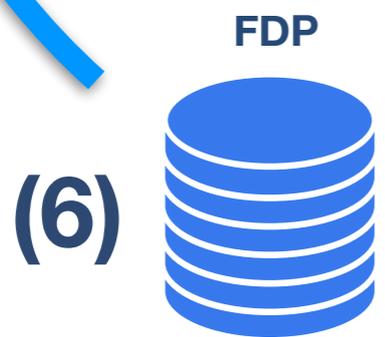
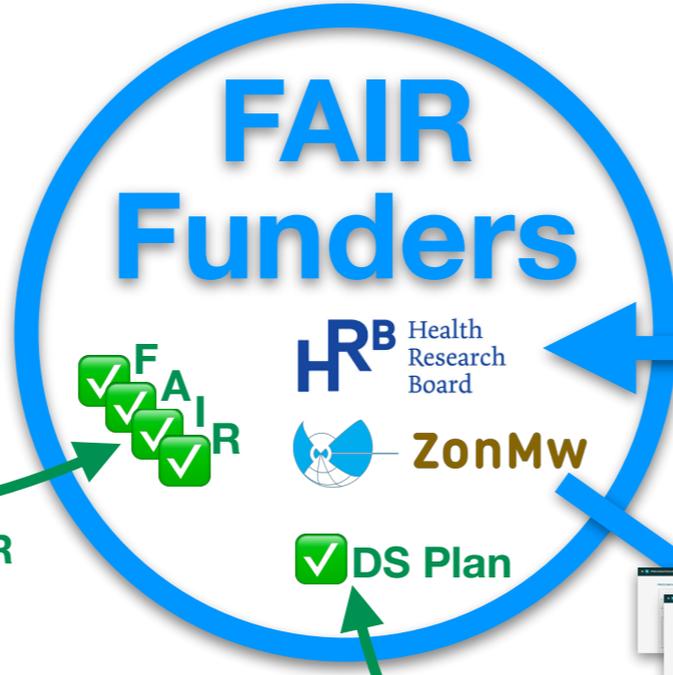
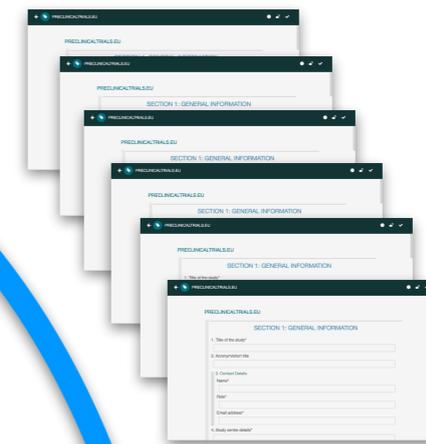
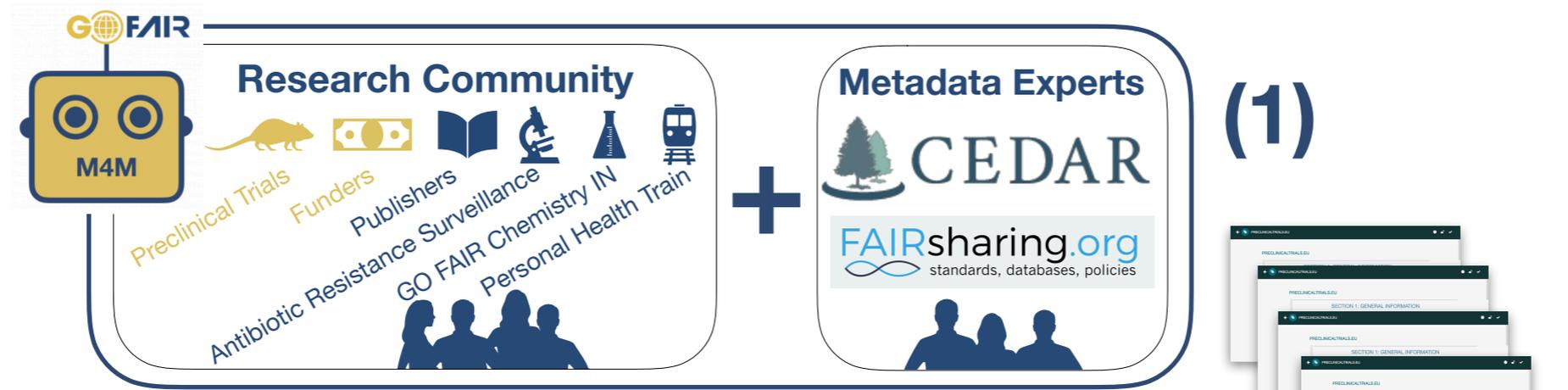
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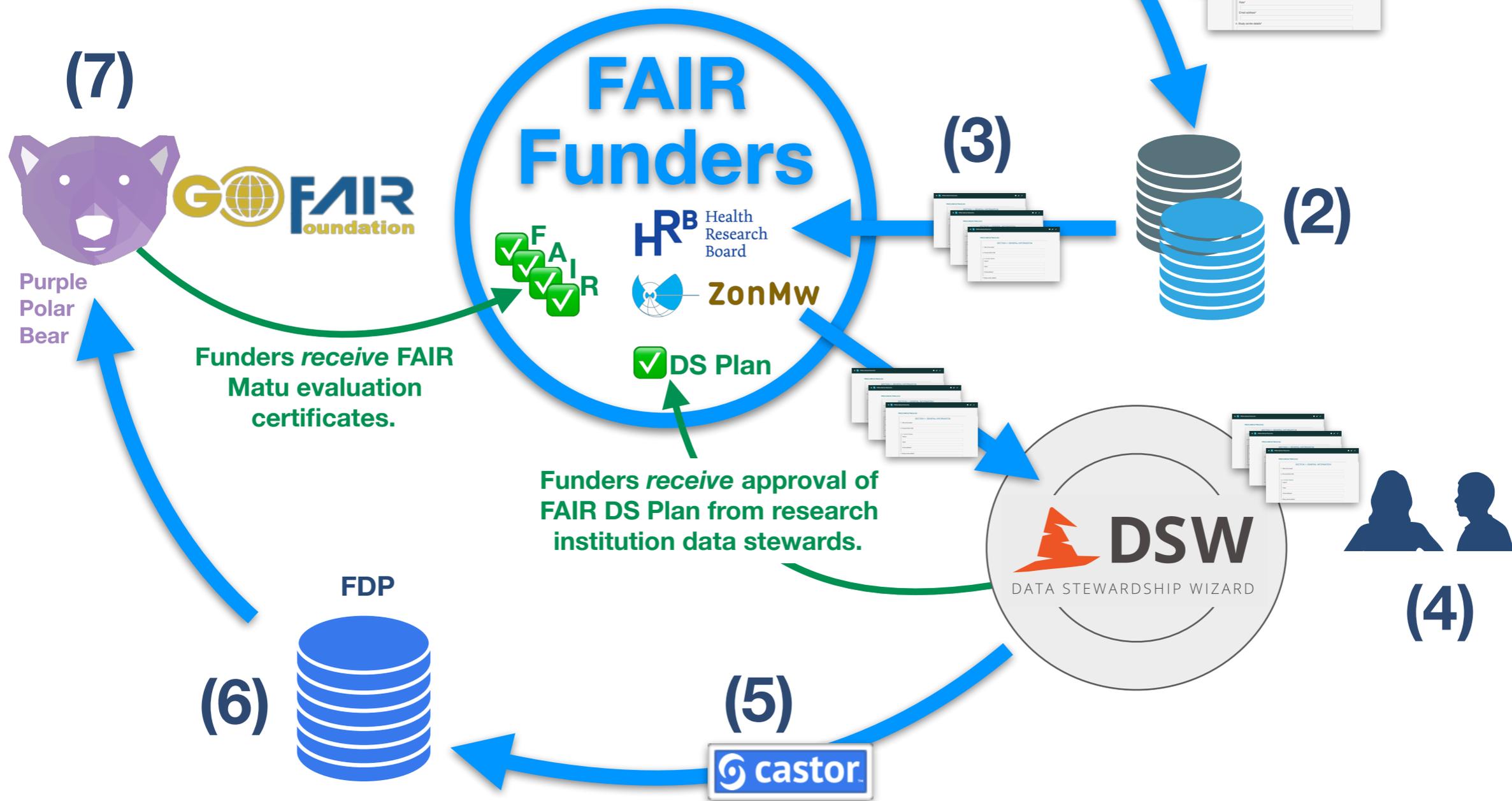
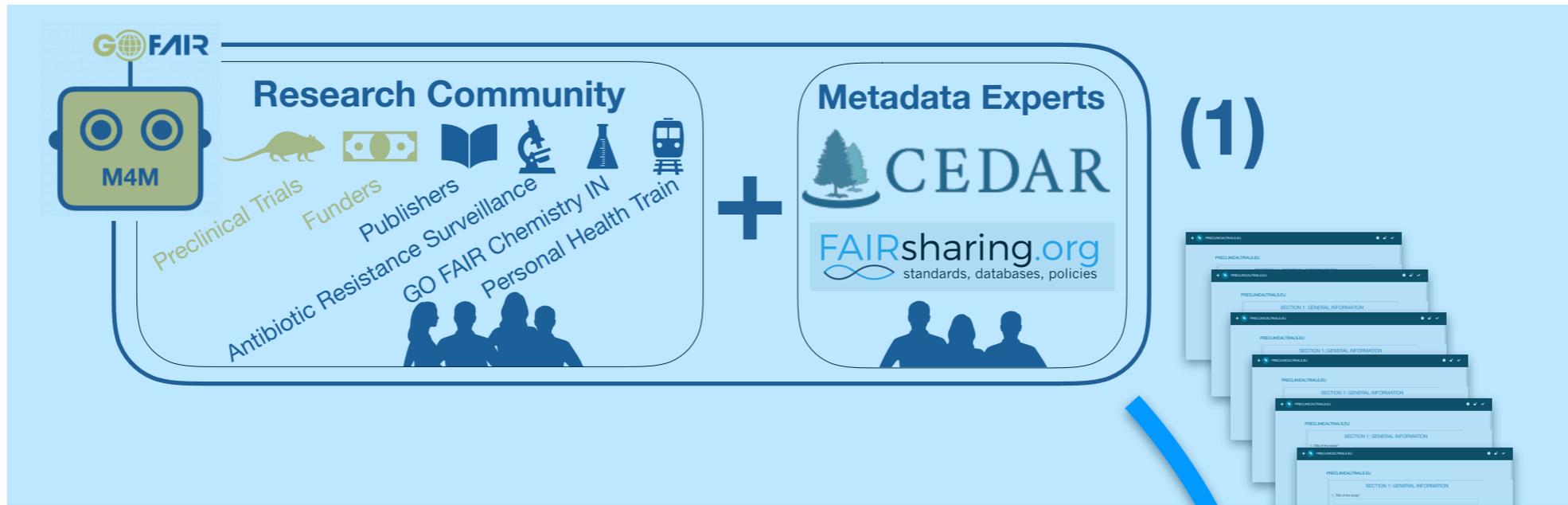


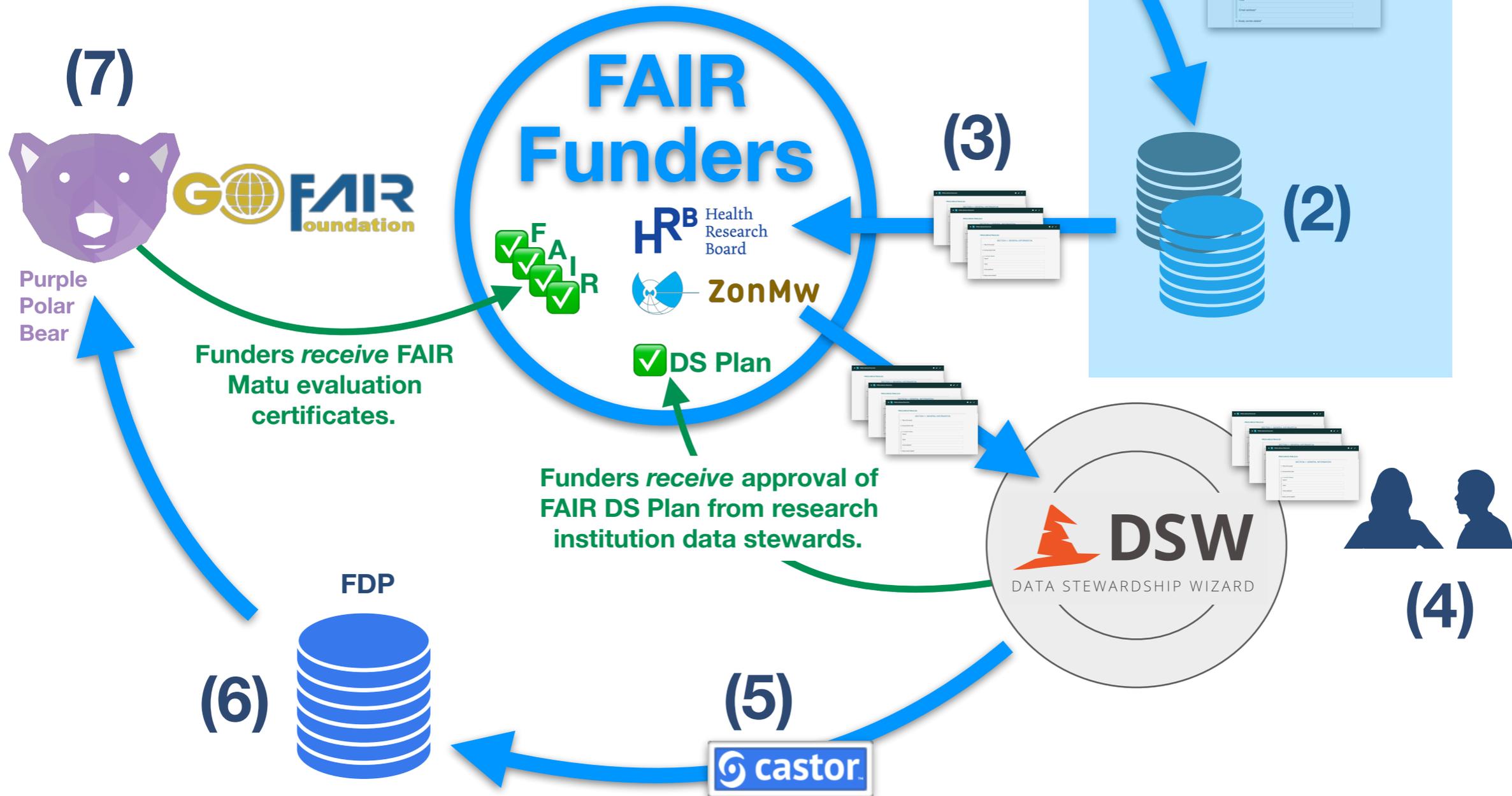
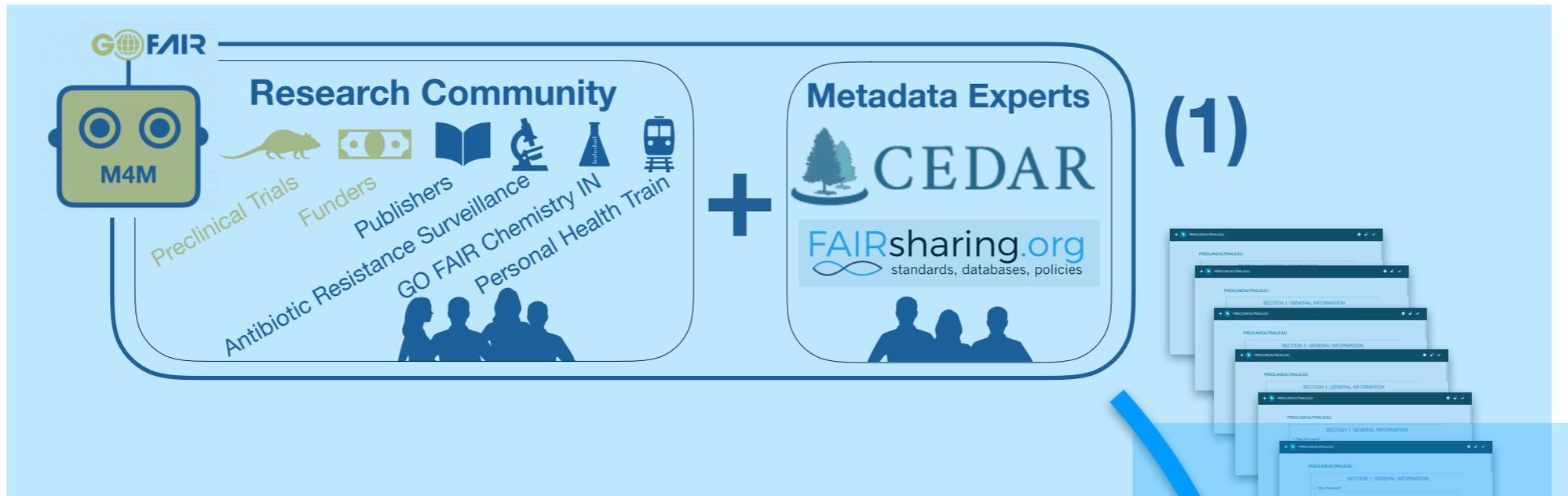
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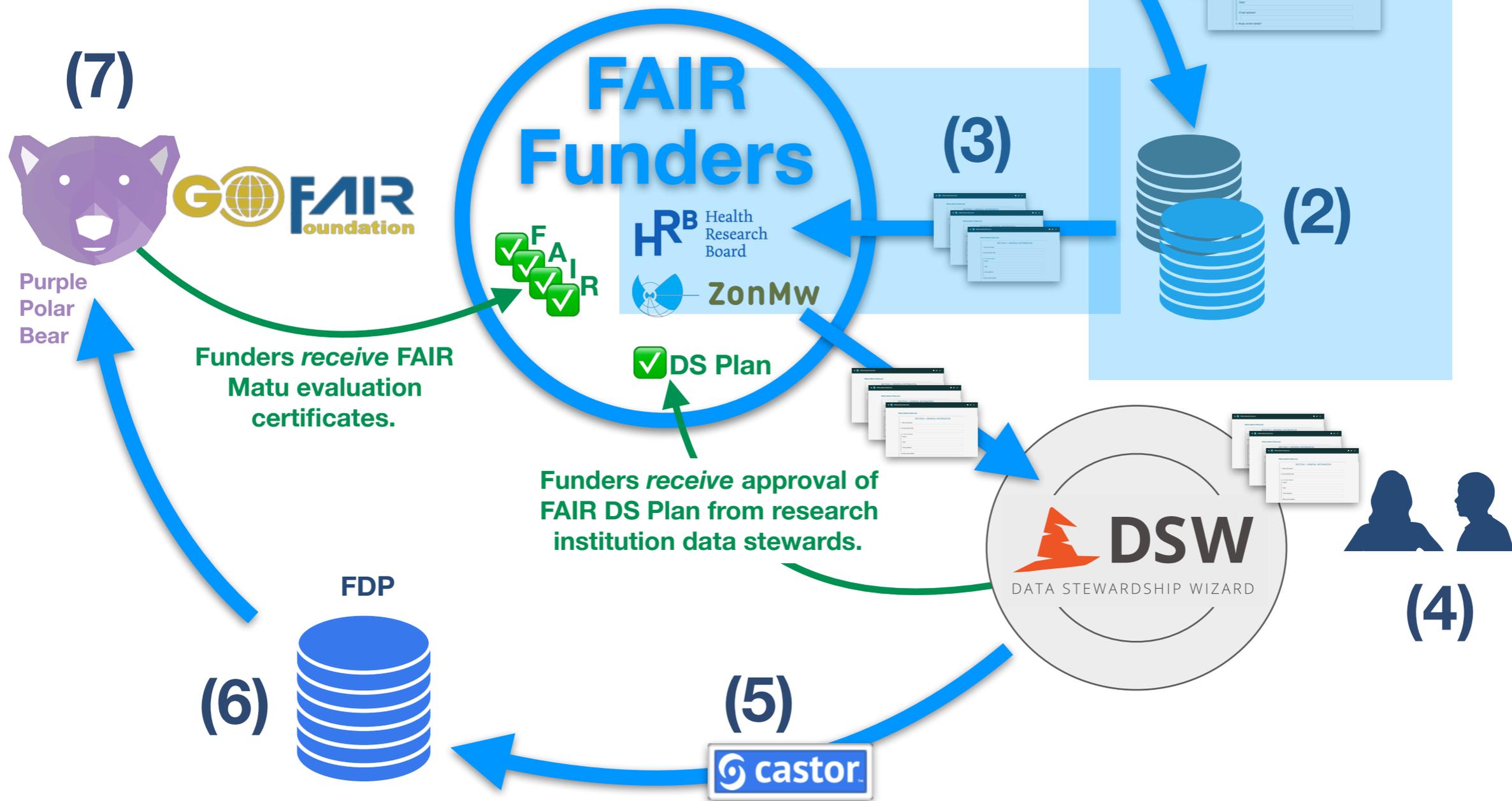
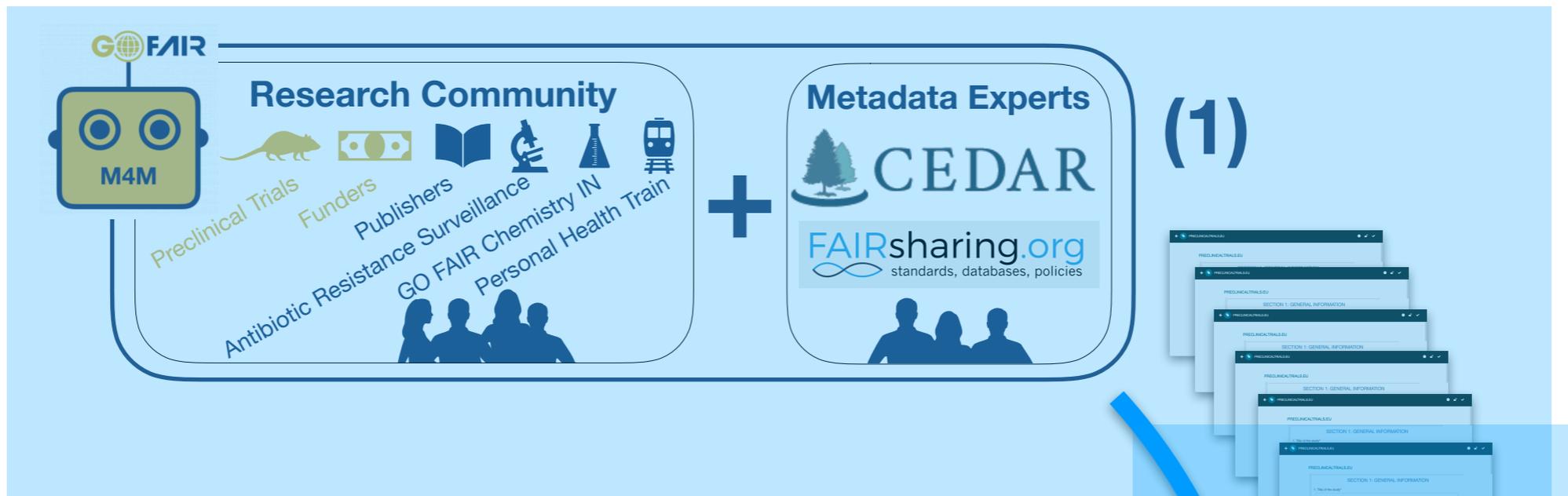


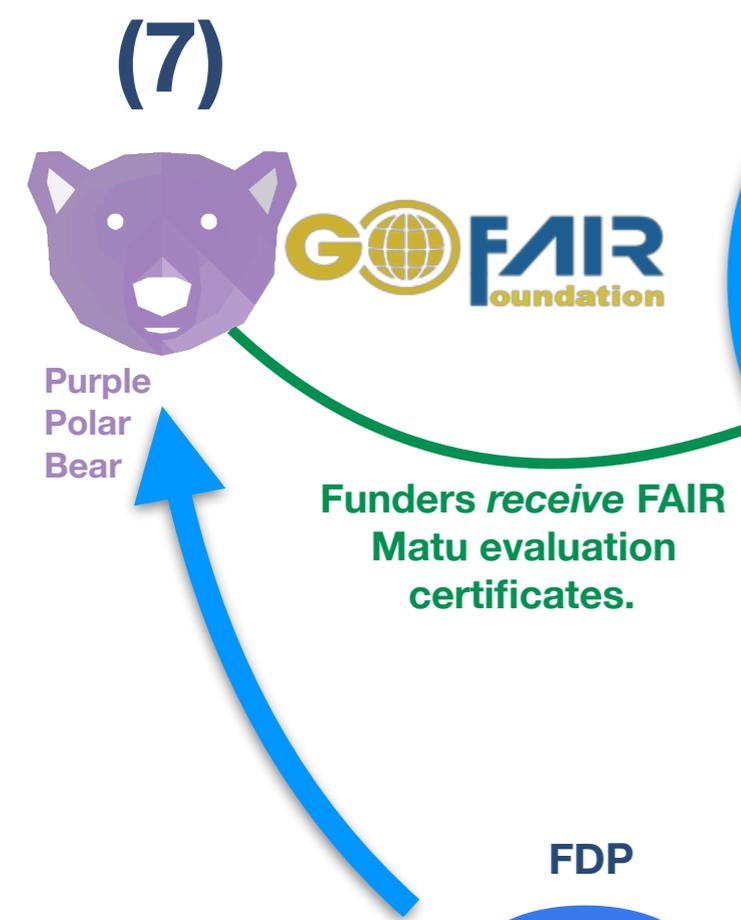
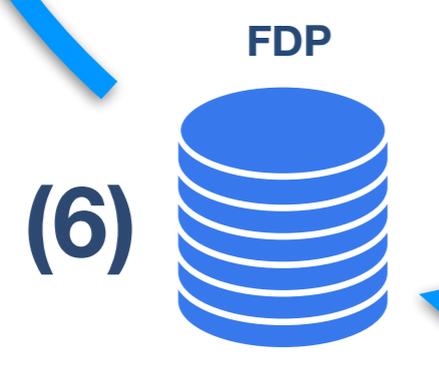
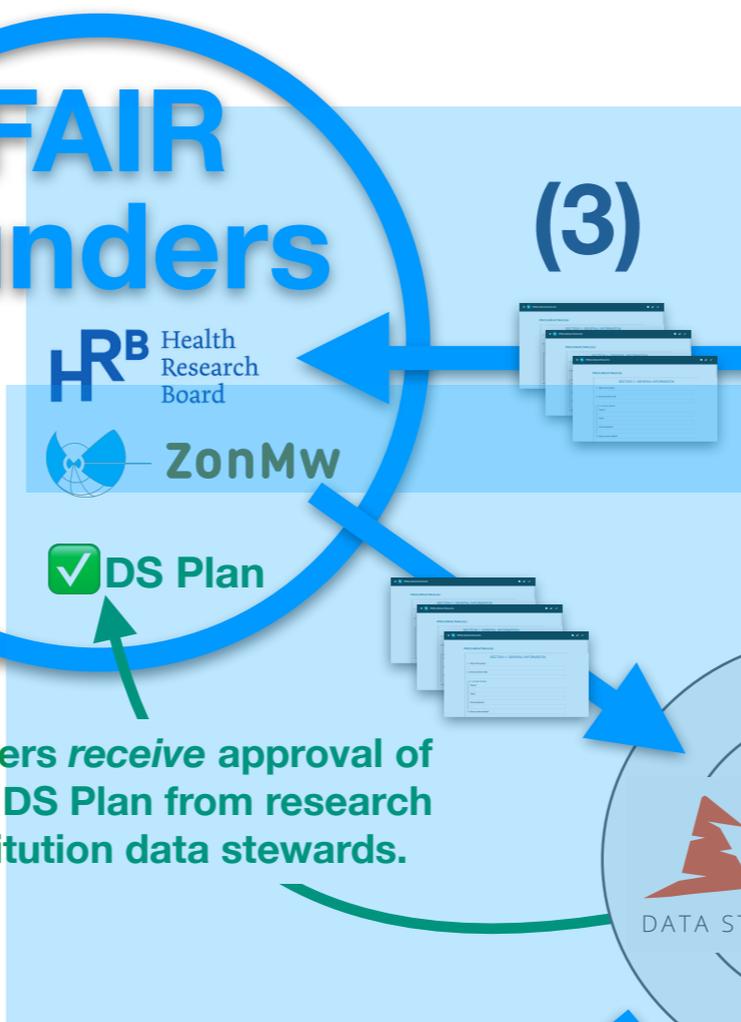
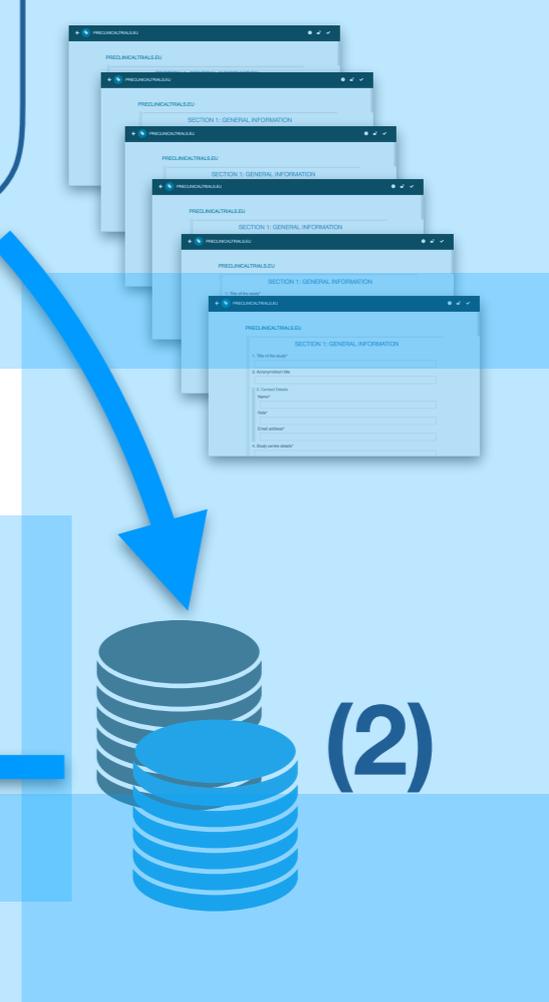
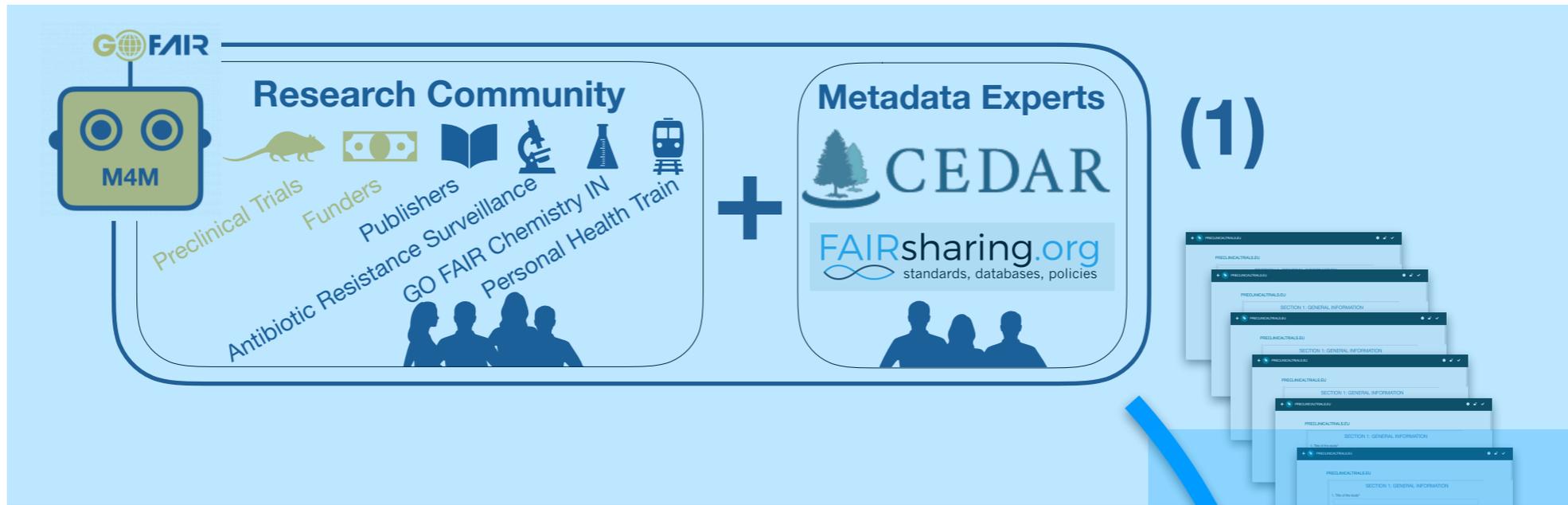


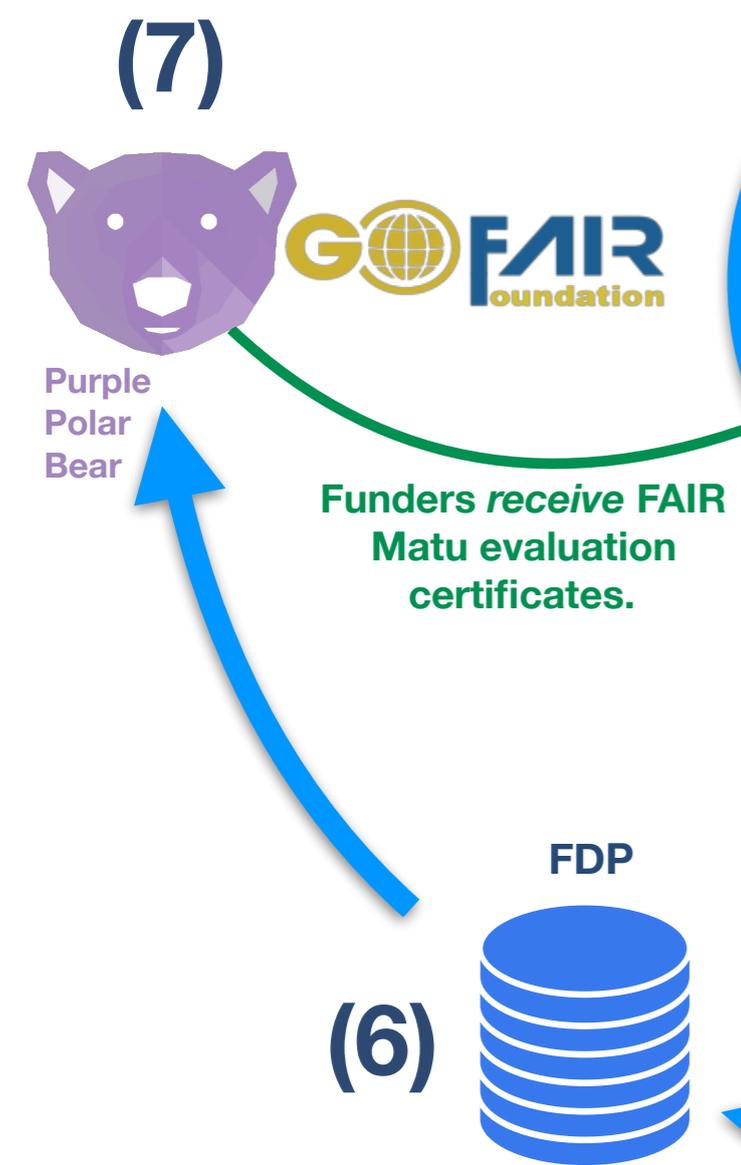
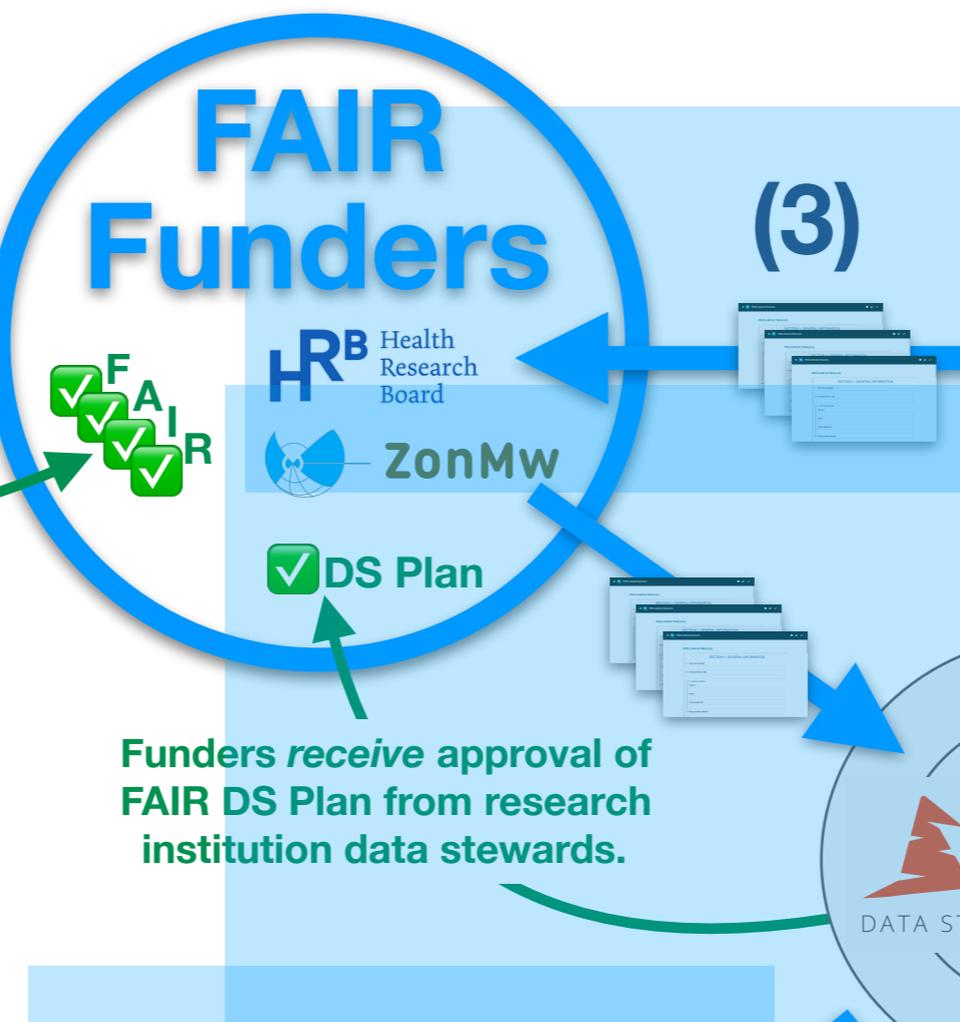
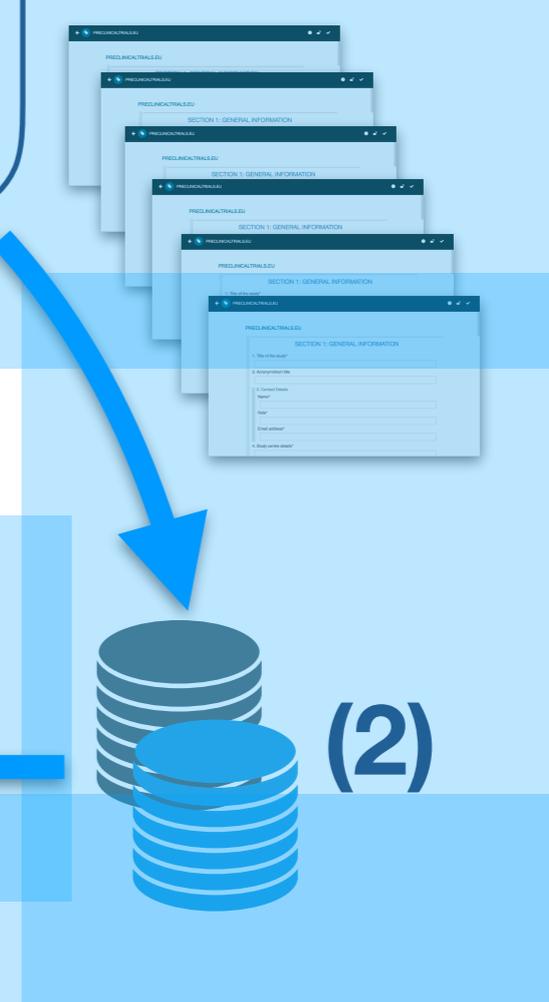
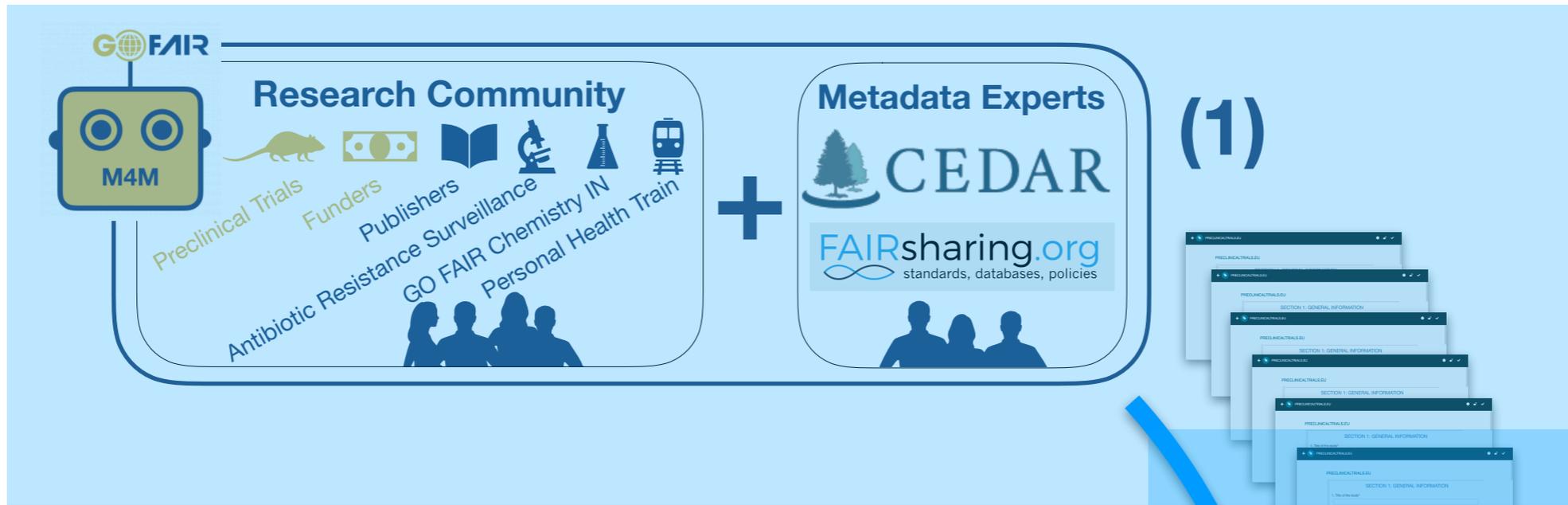
Funders receive approval of FAIR DS Plan from research institution data stewards.

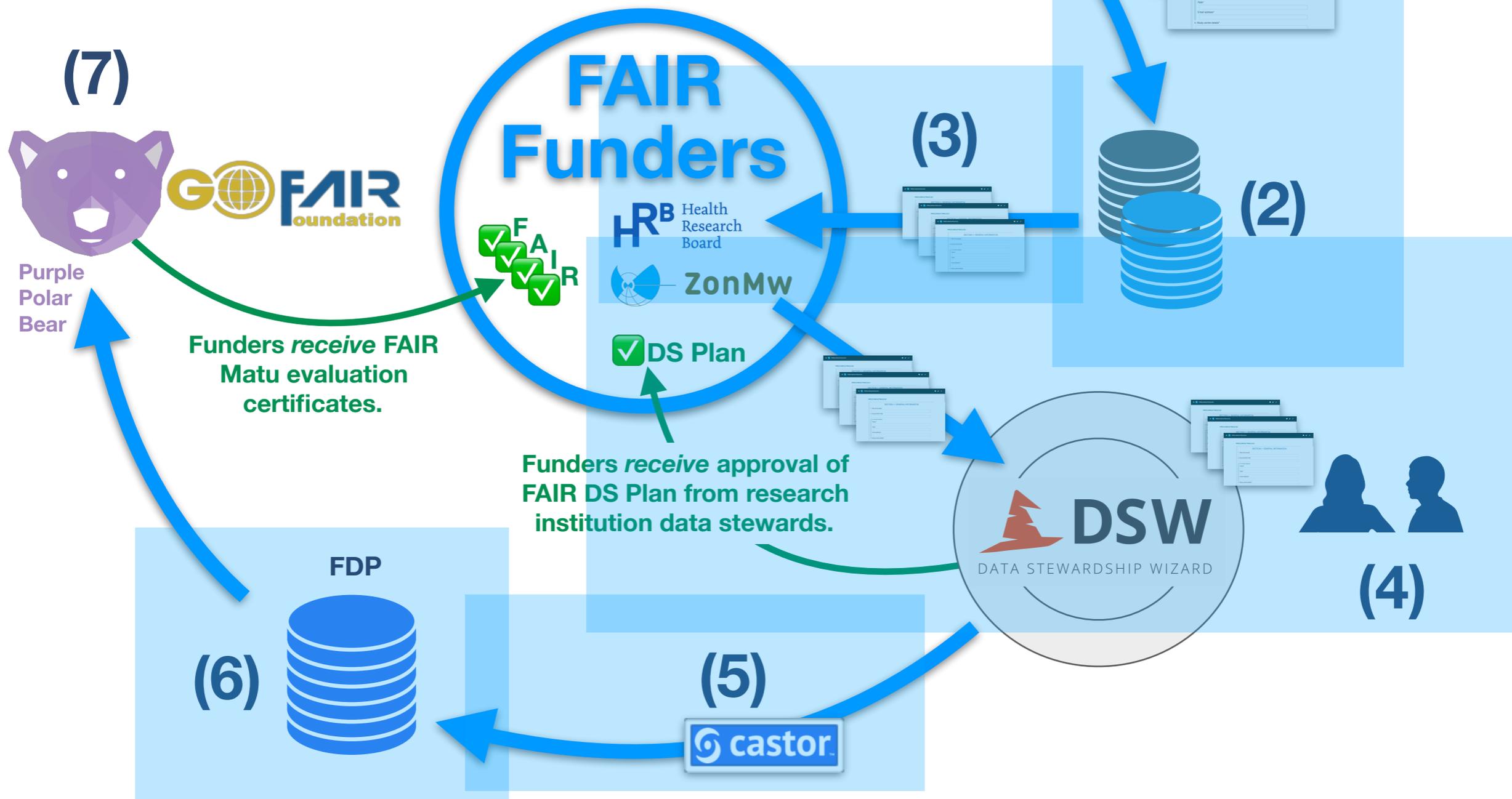
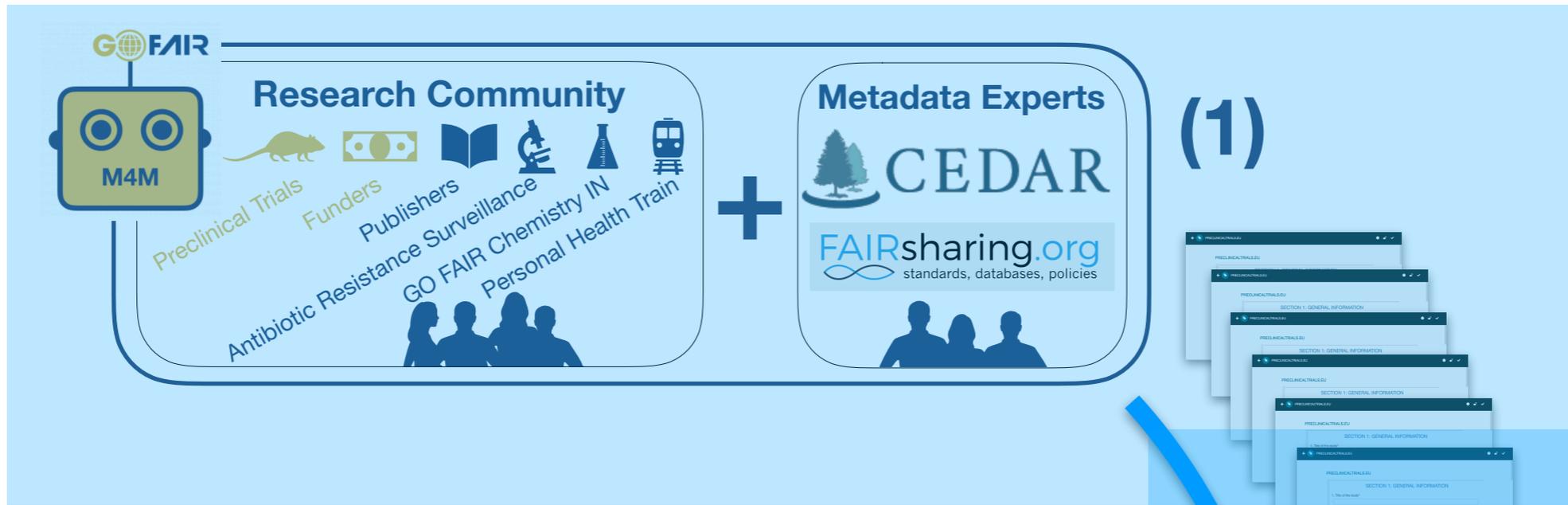






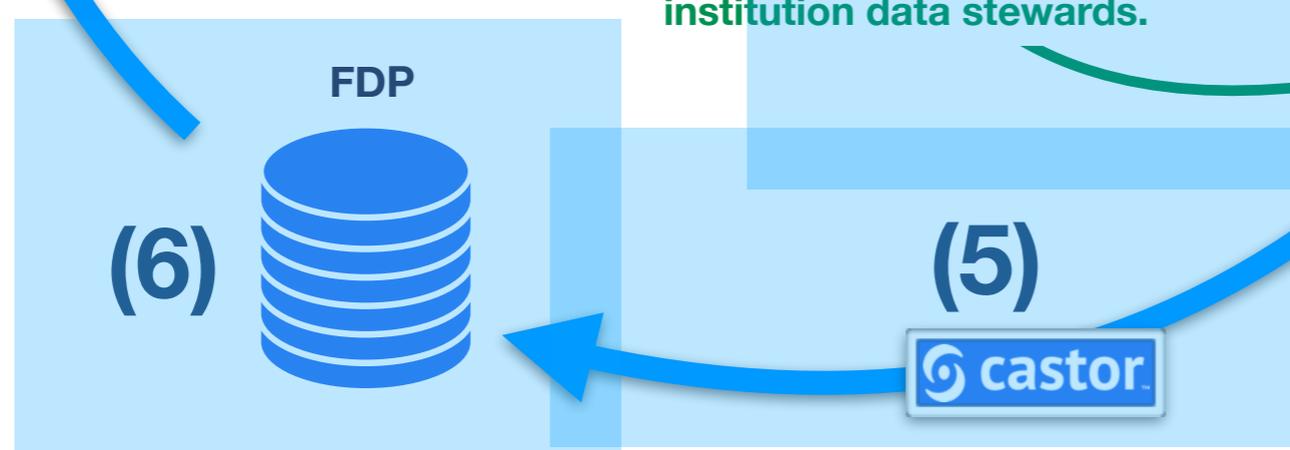


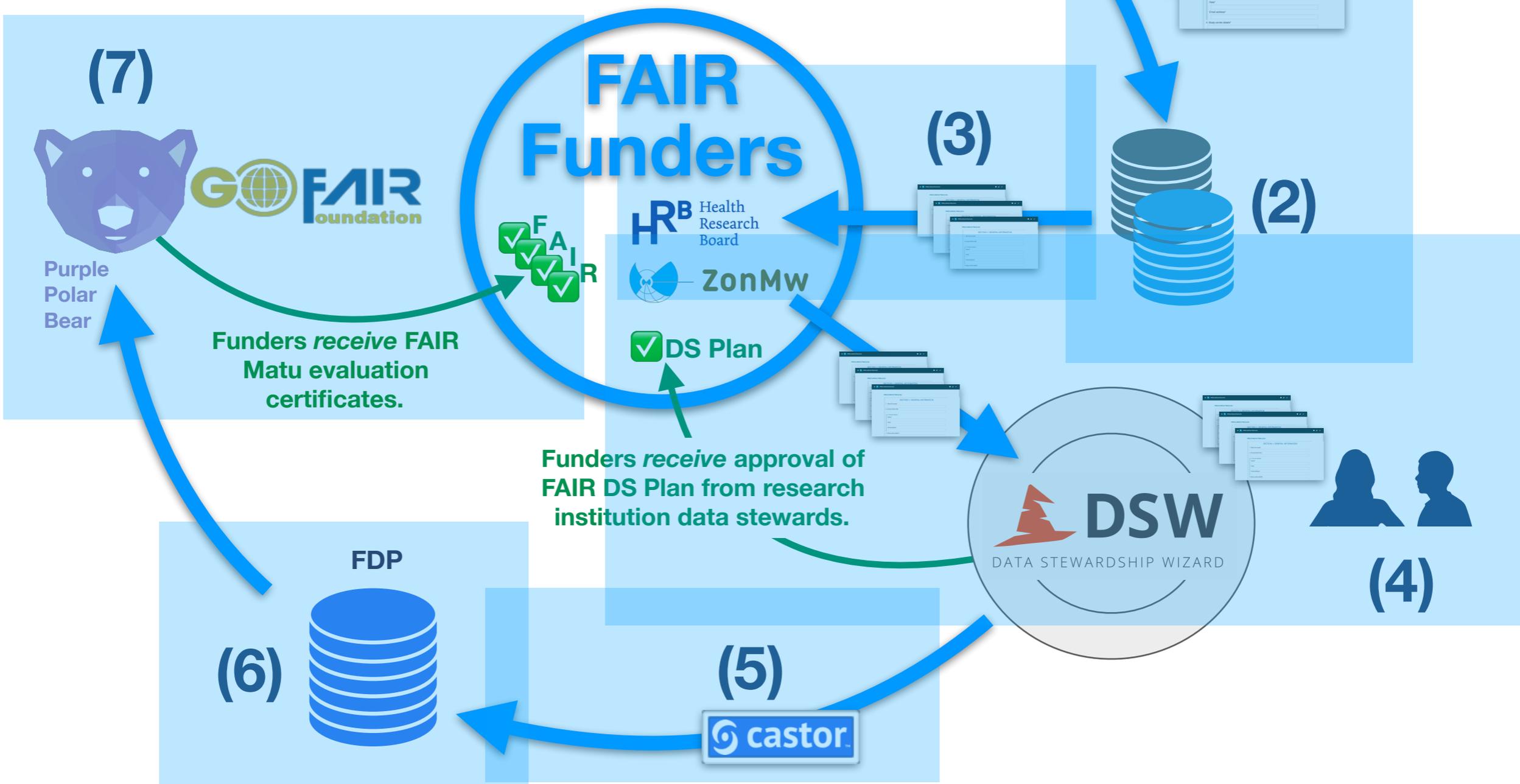
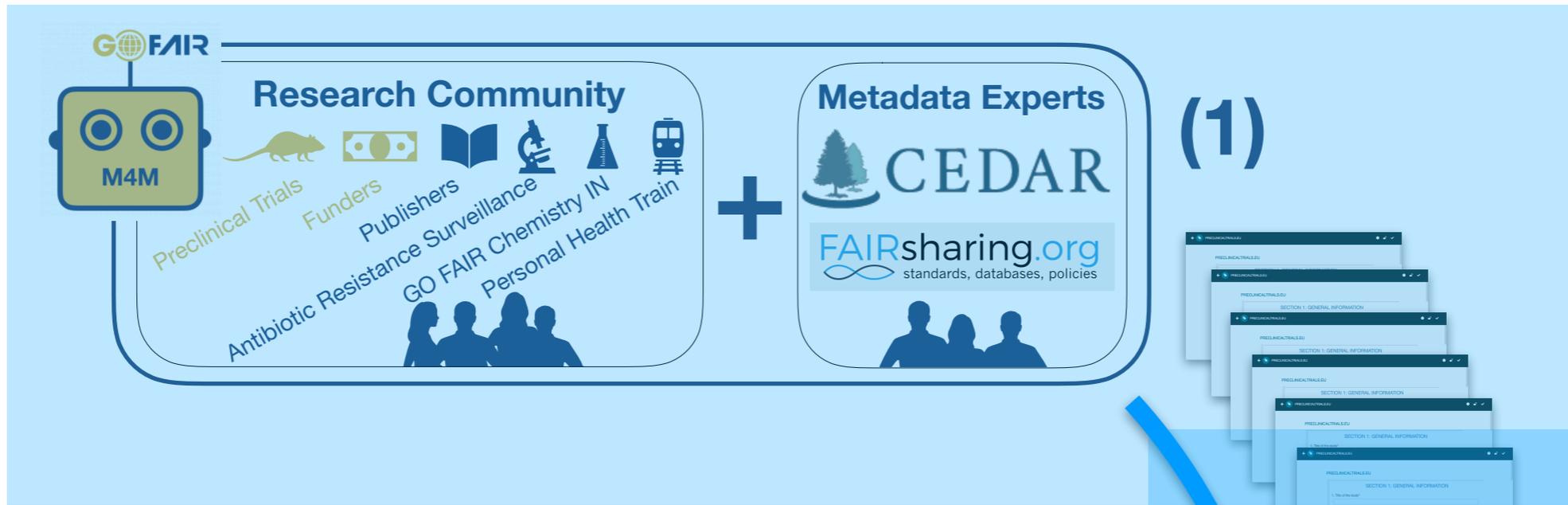




Funders receive FAIR Matu evaluation certificates.

Funders receive approval of FAIR DS Plan from research institution data stewards.





# Next Steps...



## FAIR Funder Conference

September 2019

Leiden

Erik Schultes, PhD

International Science Coordinator

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