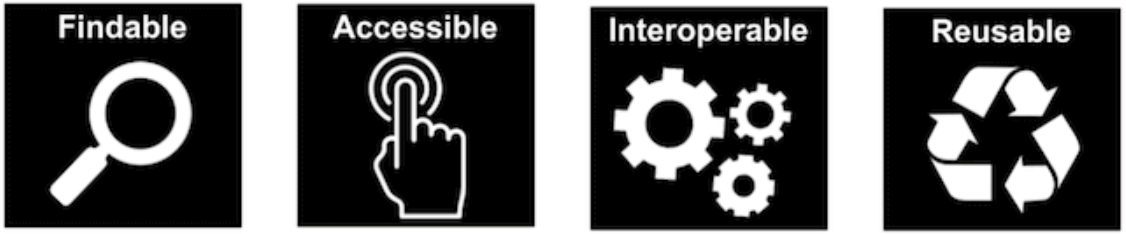
F A I R



D A T A

Silvia Sofianos

silvia.sofianos@cvtisr.sk

Spolufinancovaný Európskou úniou

PROGRAM SLOVENSKO

MINISTERSTVO ŠKOLSTVA, VÝSKUMU, VÝVOJA A MLÁDEŽE SLOVENSKEJ REPUBLIKY

CENTRUM VEDECKO-TECHNICKÝCH INFORMÁCIÍ SR

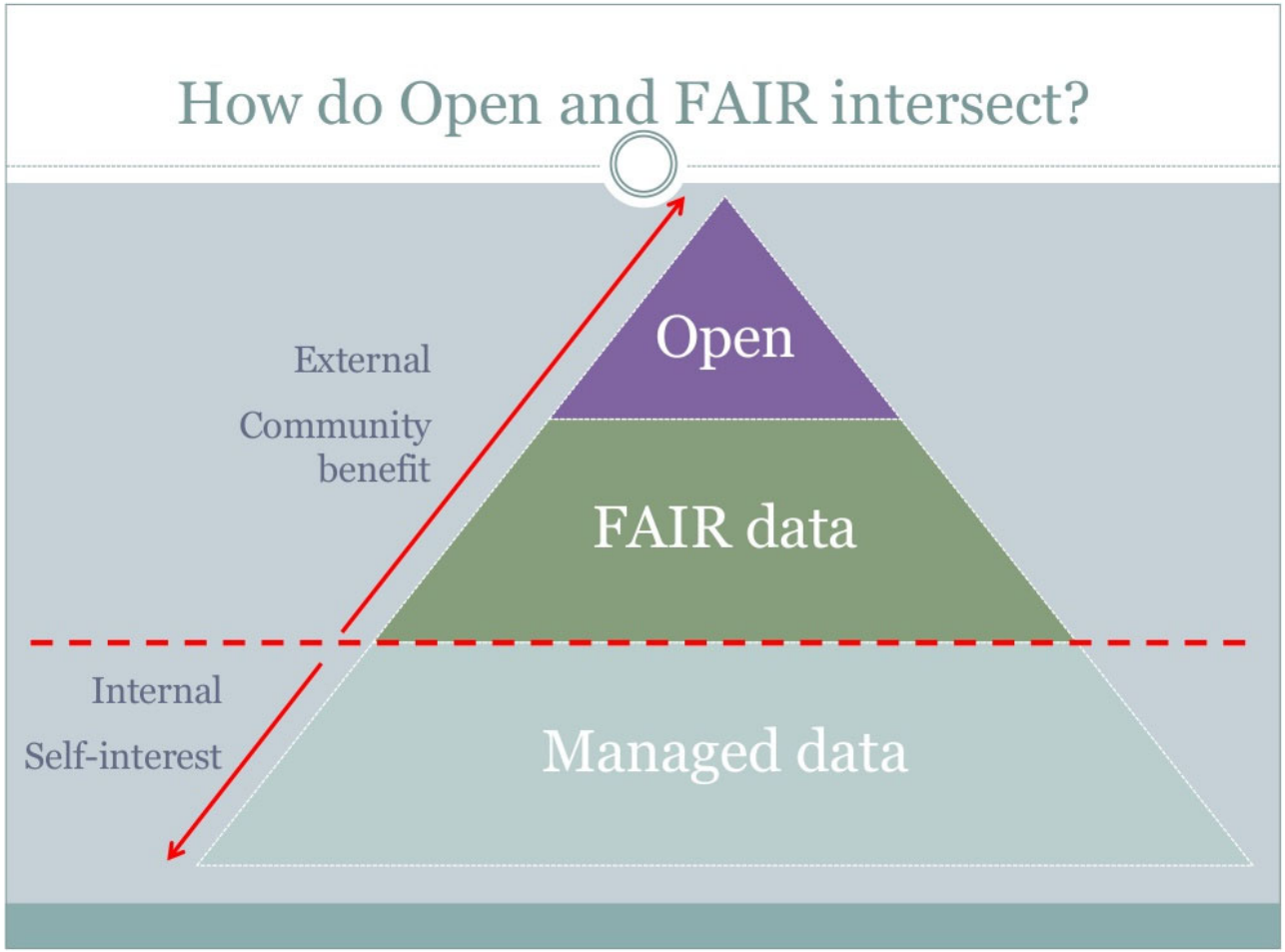
NISPEZ

What we will talk about? GF1

- What are the differences between Open and FAIR data?
- What are the FAIR data?
- FAIR data
  - Findable
  - Accessible
  - Interoperable
  - Reusable

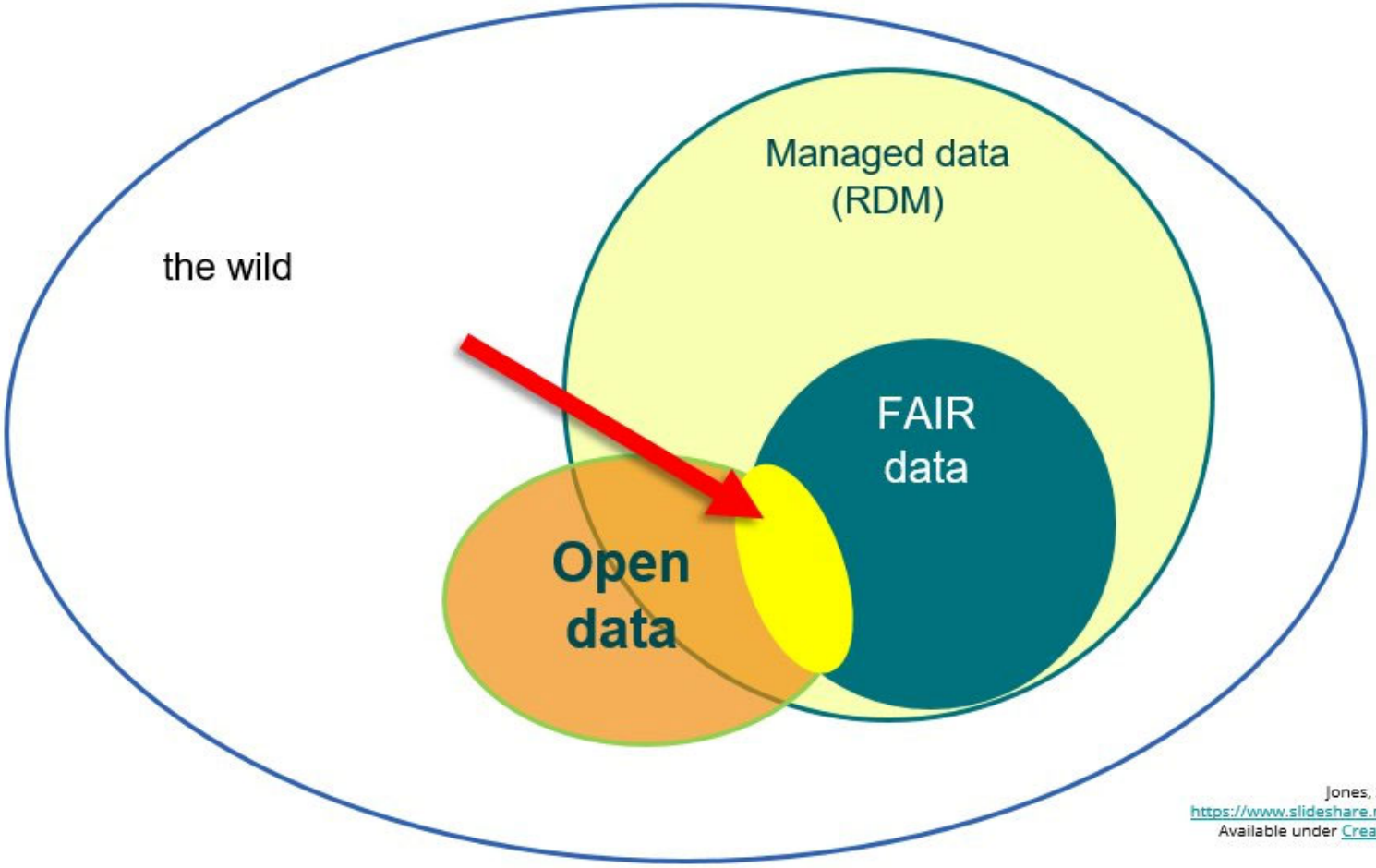
Snímka 2

GF1 Dala bez som otáznika, má to formu kladnej vety alebo potom What will we talk about?
Fisova Gabriela; 2026-02-23T14:12:50.997



https://elearning.vib.be/courses/writing-a-data-management-plan/lessons/fair-data/topic/fair-vs-open/

RDM & FAIR & Open Data



Jones, S. Open, FAIR data and RDM. 2018.
https://www.slideshare.net/sjDCC/open-fair-data-and-rdm.
Available under Creative Commons Attribution License.

Findable
Persistent Identifiers (PIDs)
Rich metadata
Indexed data repositories
PIDs in metadata
Accessible
Standard communications protocol
Open, free protocol
Authentication, where necessary
Metadata is always available
Interoperable
Vocabularies
Vocabularies are FAIR
Linked metadata
Reusable
Metadata have multiple attributes
Usage license
Provenance
Community standards

We can describe FAIR data with 4 questions:

- Where do we find the data?
- How do we access the data?
- How do we connect the data?
- How do we reuse it?

Findable

Accessible
Interoperable
Reusable

- FINDABLE

  F1. (Meta)data are assigned a globally unique and persistent identifier

ORCID
Connecting research and researchers

Silvia Sofianos English

sofianos

ABOUT FOR RESEARCHERS MEMBERSHIP DOCUMENTATION RESOURCES NEWS & EVENTS

ADVANCED SEARCH

Showing **20** of **20** results.

Items per page: 50 1 – 20 of 20

ORCID ID	First Name	Last Name	Other Names	Affiliations
0000-0001-6195-7920	CONSTANTINOS	SOFIANOS		Colleges of Medicine of South Africa, LIFE BEDFORD GARDENS HOSPITAL, University of the Witwatersrand, Univerzita Komenského v Bratislave
0000-0002-9915-9665	Dimitrios	Sofianos		AHEPA University General Hospital, Faculty of Medicine, School of Health Sciences, University of Thessaly, Interbalkan Medical Center, Universitair Ziekenhuis Brussel, Vrije Universiteit Brussel, Ziekenhuis Netwerk Antwerpen (ZNA Middelheim)
0000-0002-3438-508X	Chrysis	Sofianos		Colleges of Medicine of South Africa, Royal College of Surgeons of England, University of Edinburgh, University of the Witwatersrand
0000-0002-0651-1034	Aristotelis	Sofianos		University of Patras
0000-0002-7375-970X	Zelia	Sofianos		University of the Witwatersrand Faculty of Health Sciences
0000-0001-6325-513X	Sarantis	Sofianos		National and Kapodistrian University of Athens
0000-0002-5476-5223	Silvia	Sofianos		Slovak Centre of Scientific and Technical Information

https://orcid.org/
0000-0002-5476-5223

Printable version

Name

Silvia Sofianos

Activities

Collapse all

Employment (1)

Sort

Slovak Centre of Scientific and Technical Information: Bratislava, SK

2016 to present (Open Science Support Department)
Employment

Show more detail

Source: Silvia Sofianos

Record last modified Feb 18, 2022, 4:25:53 PM UTC

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Type or paste a DOI name, e.g., 10.1000/xyz123, into the text box below. (Be sure to enter all of the characters before and after the slash. Do not include extra characters, or sentence punctuation marks.)

10.5281/zenodo.3627365 SUBMIT

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January 24, 2020

Dataset | Open Access

Namelists required to run sea ice and physics configuration of MITgcm for the West Antarctic Peninsula

Schultz,Cristina

This dataset contains the namelists that describe the initial conditions, forcing files and specific package configurations used to run a sea ice and ocean physics configuration of the MITgcm (general circulation model) for the West Antarctic Peninsula (WAP).

Files (2.2 MB)

Name	Size	
data md5:a1c93ee96f3eb18513337ab5d457e47d	6.6 kB	Download
data.cal md5:6c3ab678050fcefb4d115ef6602adda2	176 Bytes	Download
data.diagnostics md5:a7e161607565c6340ef5e767eea1bc17	5.7 kB	Download

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January 24, 2020

DOI:
DOI 10.5281/zenodo.3627365

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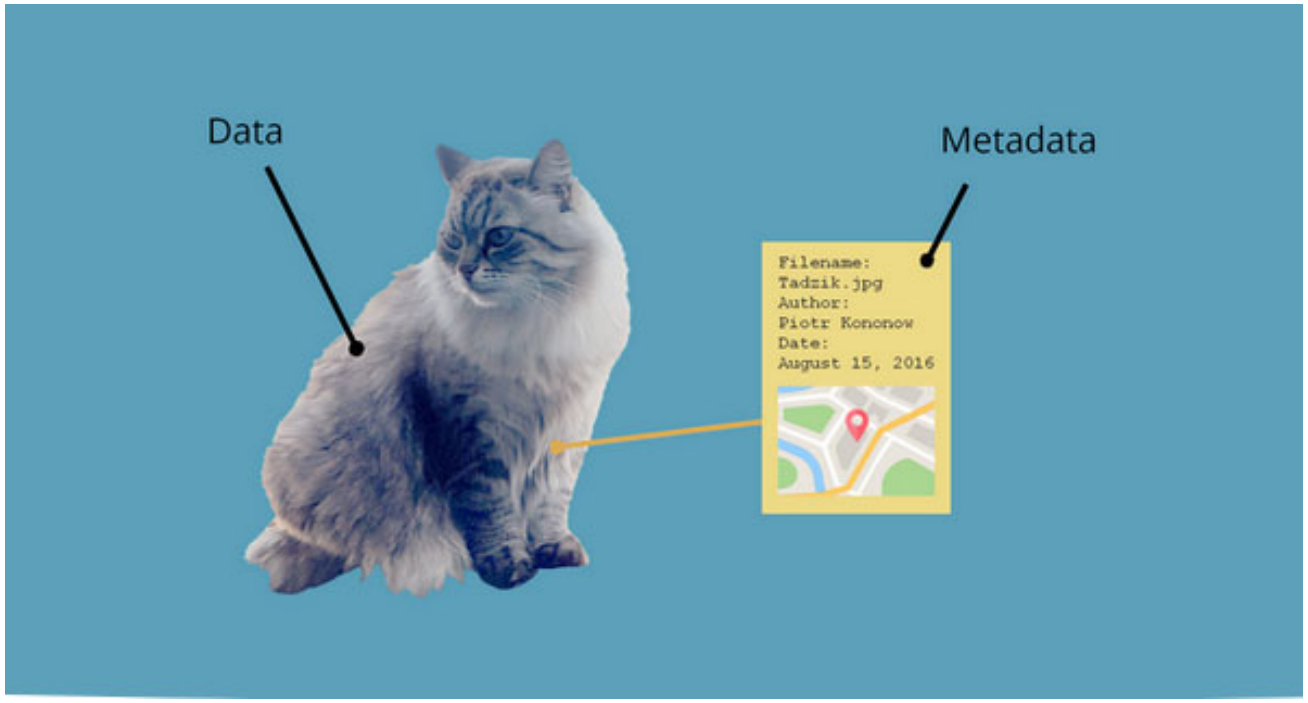
Findable

Accessible
Interoperable
Reusable

- FINDABLE
  - **F1**. (Meta)data are assigned a globally unique and persistent identifier
  - **F2**. Data are described with rich metadata



https://dataedo.com/kb/data-glossary/what-is-metadata

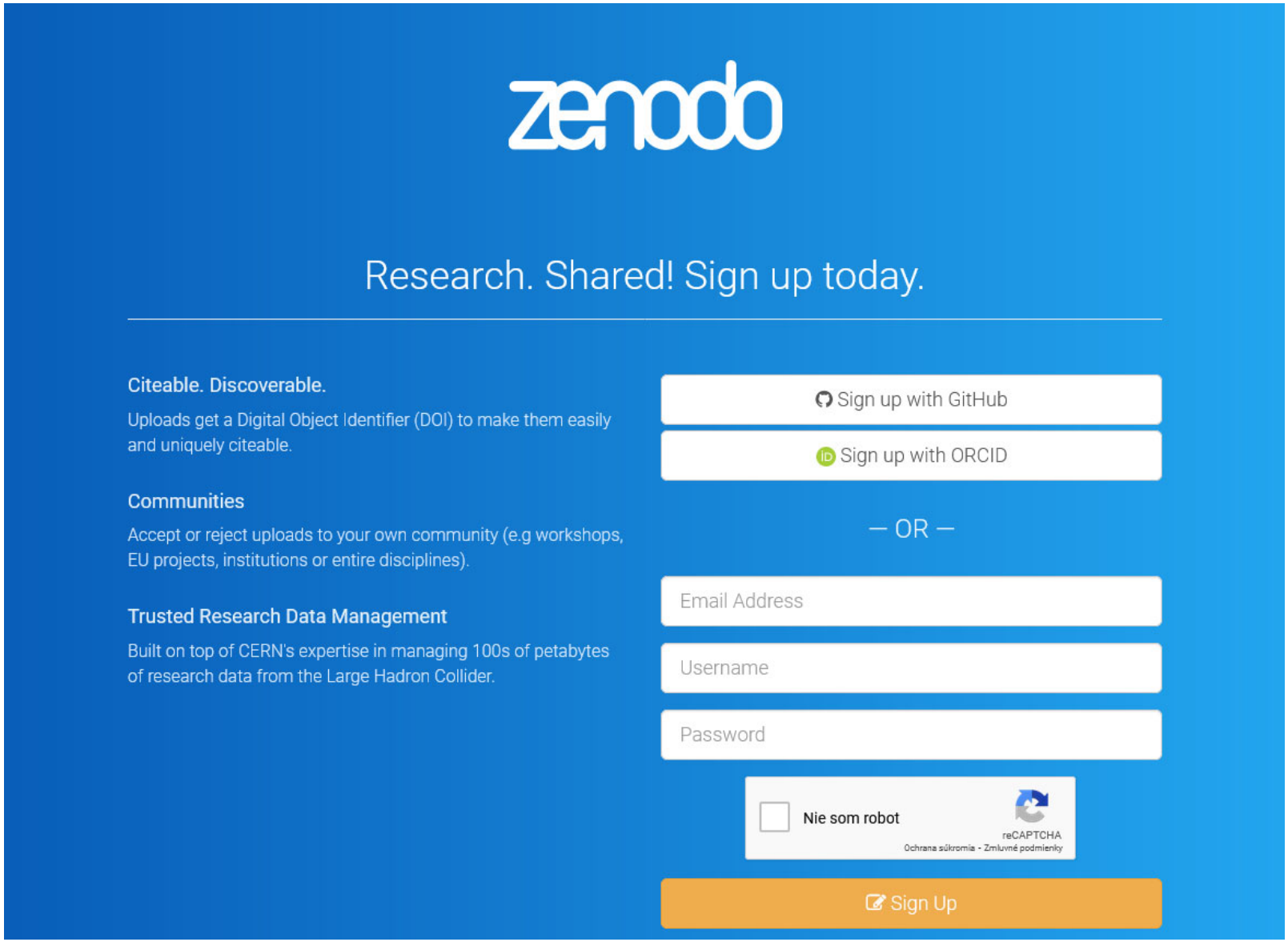
Findable

Accessible
Interoperable
Reusable

- FINDABLE
  - **F1**. (Meta)data are assigned a globally unique and persistent identifier
  - **F2**. Data are described with rich metadata
  - **F3**. Metadata clearly and explicitly include the identifier of the data they describe
  - **F4**. (Meta)data are registered or indexed in a searchable resource

Findable
Accessible
Interoperable
Reusable

- ACCESSIBLE
  - **A1**. (Meta)data are retrievable by their identifier using a standardised communications protocol
  - **A1.1** The protocol is open, free, and universally implementable
  - **A1.2** The protocol allows for an authentication and authorisation procedure, where necessary
  - **A2**. Metadata are accessible, even when the data are no longer available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Trusted Research Data Management
Built on top of CERN's expertise in managing 100s of petabytes of research data from the Large Hadron Collider.
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Nie som robot
reCAPTCHA
Ochrana súkromia - Zmluvné podmienky
Sign Up

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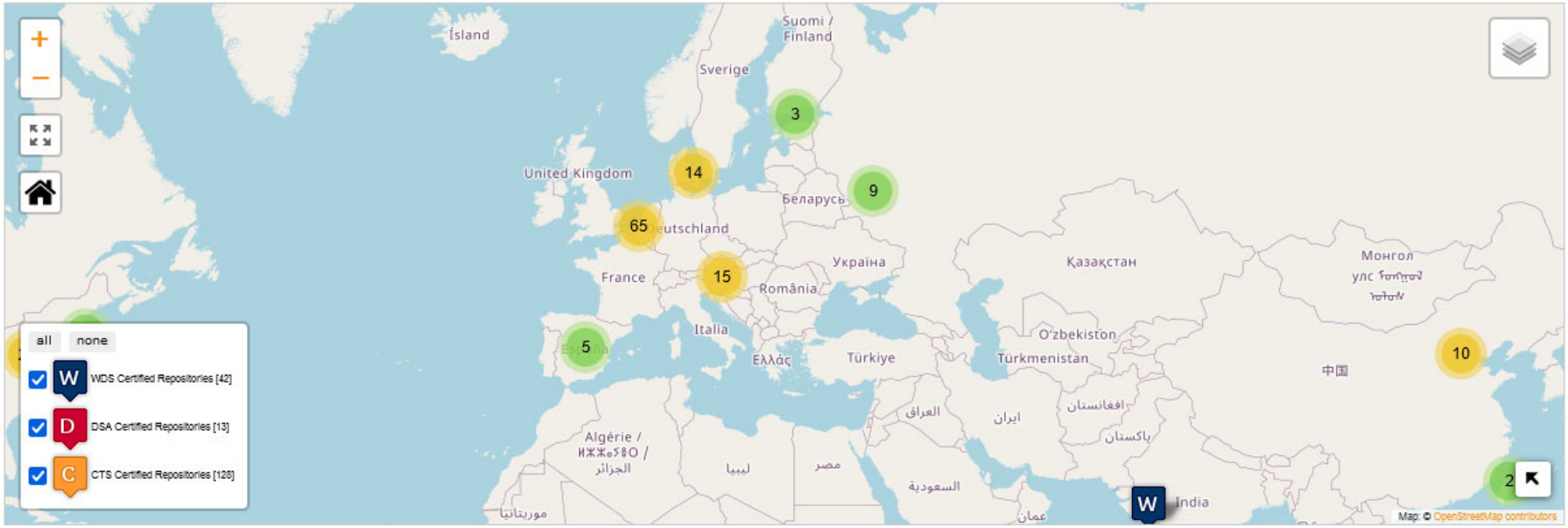
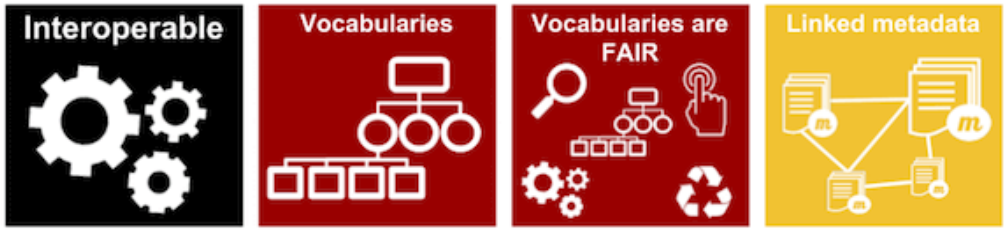
Core Certified Repositories

Home › Why certification › Core Certified Repositories

Applications are made public only once certification of a data repository has been approved by the CoreTrustSeal Board. Certification is against the version of the Core Trustworthy Data Repositories Requirements named in the link to the public application (e.g., 2017–2019). The CoreTrustSeal for Data Repositories is valid for three years from the certification date listed within the public application.



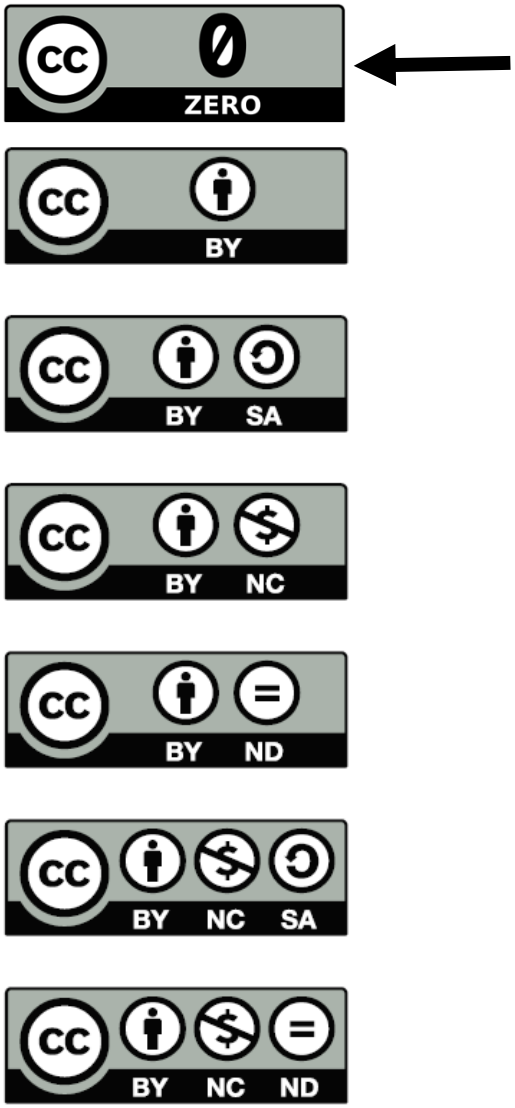
Findable
Accessible
Interoperable
Reusable



- INTEROPERABLE
  - **I1**. (Meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
  - **I2**. (Meta)data use vocabularies that follow FAIR principles
  - **I3**. (Meta)data include qualified references to other (meta)data

Findable
Accessible
Interoperable
Reusable

- REUSABLE
  - **R1**. (Meta)data are richly described with a plurality of accurate and relevant attributes
  - **R1.1**. (Meta)data are released with a clear and accessible data usage license
  - **R1.2**. (Meta)data are associated with detailed provenance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BY
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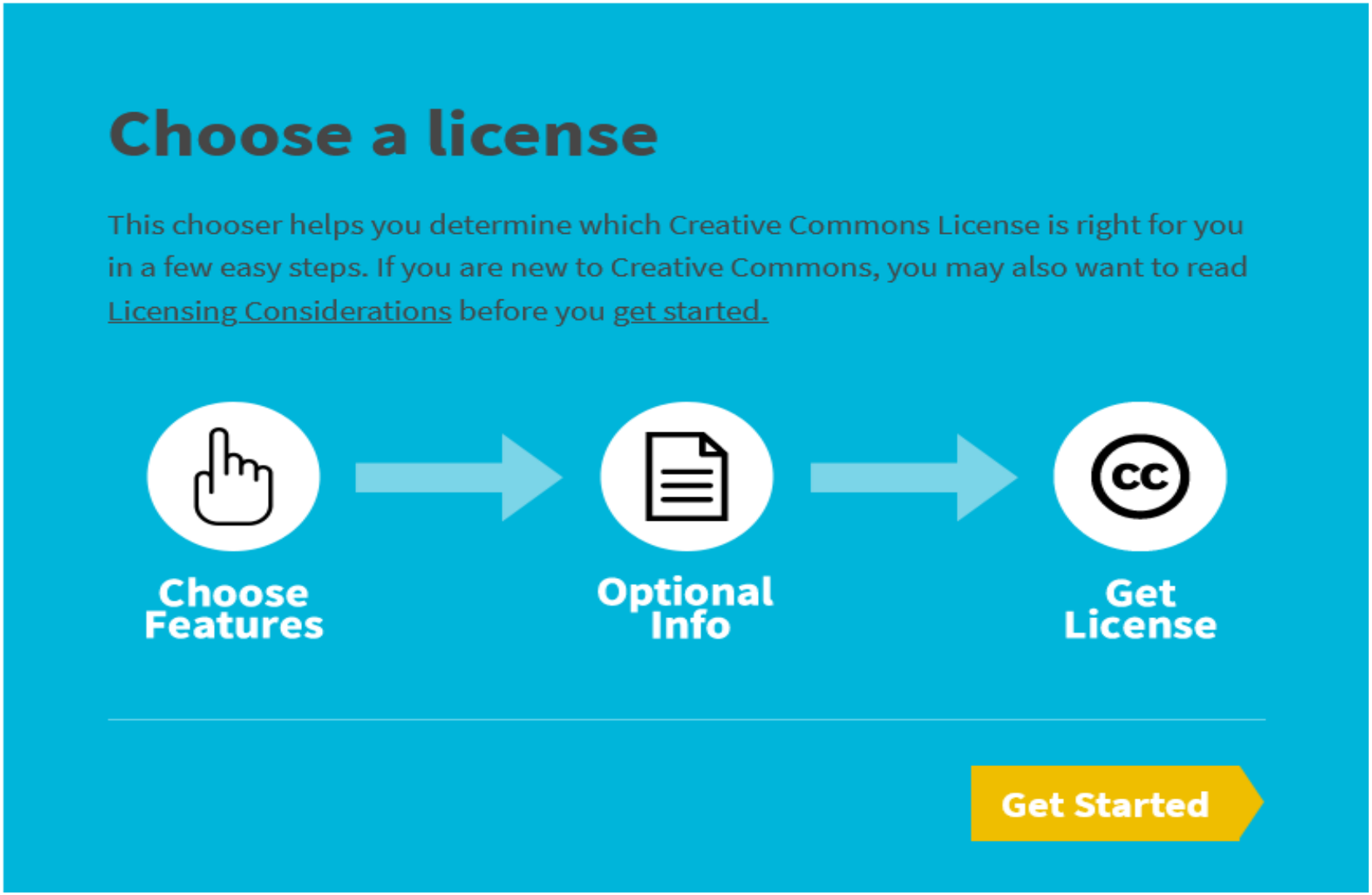
BY NC SA
BY NC ND



https://creativecommons.org/

Findable
Accessible
Interoperable
Reusable

- REUSABLE
  - **R1**. (Meta)data are richly described with a plurality of accurate and relevant attributes
  - **R1.1**. (Meta)data are released with a clear and accessible data usage license
  - **R1.2**. (Meta)data are associated with detailed provenance
  - **R1.3**. (Meta)data meet domain-relevant community standards

MIAME and MINSEQE guidelines

The MIAME (Minimum Information About a Microarray Experiment) and MINSEQE (Minimum Information About a Next-generation Sequencing Experiment) guidelines outline the minimum information that should be included when describing a microarray or sequencing study. Many journals and funding agencies require microarray data to comply with MIAME and MINSEQE standards.

MIAME compliance is not related to the submission format or route, but rather to the content provided

GEO deposit procedures enable and encourage submitters to supply MIAME and MINSEQE compliant data. All GEO submission procedures are designed to closely follow the MIAME and MINSEQE checklists; if you provide all requested information, your submission will be compliant.

The six most critical elements contributing towards MIAME are:

- Raw data for each assay (e.g., CEL or FASTQ files)
- Final processed (normalized) data for the set of assays in the study (e.g., the gene expression data count matrix used to draw the conclusions in the study)
- Essential sample annotation (e.g., tissue, sex and age) and the experimental factors and their values (e.g., compound and dose in a dose response study)
- Experimental design including sample data relationships (e.g., which raw data file relates to which sample, which assays are technical, which are biological replicates)
- Sufficient annotation of the array or sequence features examines (e.g., gene identifiers, genomic coordinates)
- Essential laboratory and data processing protocols (e.g., what normalization method has been used to obtain the final processed data)

More information and background regarding GEO and data standards are discussed in this Nature Biotechnology correspondence.

Findable
Persistent Identifiers (PIDs)
Rich metadata
Indexed data repositories
PIDs in metadata
Accessible
Standard communications protocol
Open, free protocol
Authentication, where necessary
Metadata is always available
Interoperable
Vocabularies
Vocabularies are FAIR
Linked metadata
Reusable
Metadata have multiple attributes
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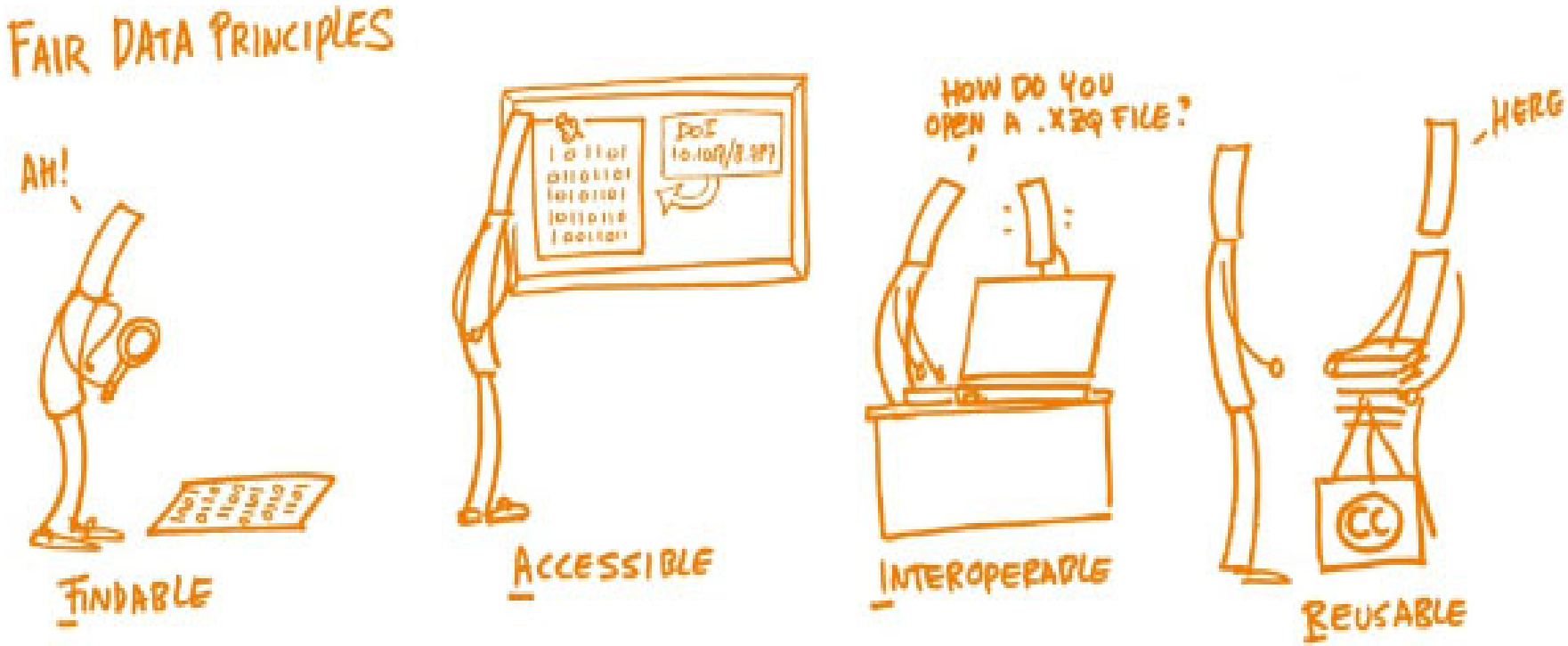

FAIR DATA PRINCIPLES
AH!
FINDABLE
DOI
ACCESSIBLE
HOW DO YOU OPEN A .XZQ FILE?
INTEROPERABLE
HERE
REUSABLE

USEFUL TOOLS

Data Archiving and Networked Services
DANS

FAIR Aware

Your first step towards your FAIR data(set)

Do you work with data? Are you looking to make it future-proof? The **FAIR Principles** can help you.

These principles stand for the Findability, Accessibility, Interoperability and Reusability of data(sets). Applying these principles to your data(set) will help others to find, cite and reuse your data more easily.

FAIR-Aware helps you assess your knowledge of the FAIR Principles, and better understand how making your data(set) FAIR can increase the potential value and impact of your data.

The tool is discipline-agnostic, making it relevant to any scientific field. You can use this tool at any point during your research before depositing your **data(set)** in a data repository. It is also good to keep in mind that many FAIR-related decisions can already be made in the research planning phase, so you may want to use FAIR-Aware early on to help you make those decisions. Also, if you are a trainer, you can use FAIR-Aware to assess the knowledge of FAIR of your course participants.

The self-assessment consists of 10 questions with additional guidance texts to help you become more aware of what you can do to make your data(set) as FAIR as possible. The assessment will take between 10-30 minutes, after which you will receive an overview of your awareness level and additional tips on how you can further improve your FAIR skills.

If you would like to use FAIR-Aware in your own training, you can find instructions on the trainer functionality here
You can contact the FAIR-Aware development team for any questions or comments via e-mail.

amnesia

HOME ABOUT FEATURES DOWNLOAD CONTACT

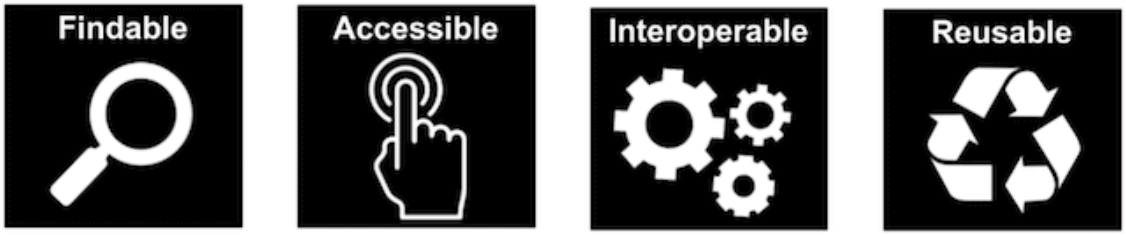
High accuracy Data Anonymization.

Perform research and share your results that satisfy GDPR guidelines by using data anonymization algorithms.

GET STARTED

SOURCES:

- ARDC (2020): FAIR data 101 training. https://ardc.edu.au/resource/fair-data-101-training-findable-1/
- CESSDA (2019): Data Management Expert Guide. https://dmeg.cessda.eu/
- DANS (2022): FAIR Aware. https://fairaware.dans.knaw.nl/
- FAIR DATA AUSTRIA (2021): Let's make our data FAIR! https://forschungsdaten.at/en/fair-data-austria/materials/lets-make-our-data-fair/
- GO FAIR (2022): FAIR Principles. https://www.go-fair.org/fair-principles/



THANK YOU FOR YOUR ATTENTION

silvia.sofianos@cvtisr.sk