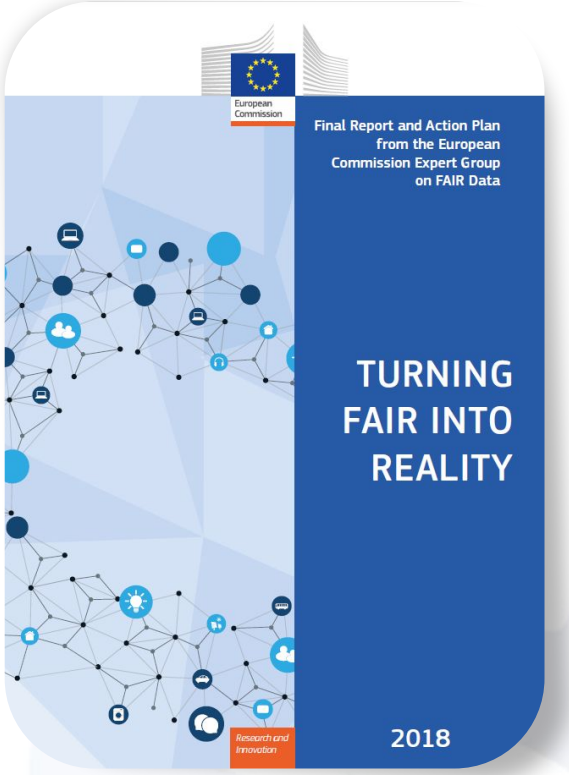
Assessing the FAIRness of your content

Robert Huber, PANGAEA - University Bremen

- FAIR assessment implementation comprises the development of two main components – assessment metrics and tool.

Priority Recommendations
Rec. 8: Facilitate automated processing
Rec. 12: Develop metrics for FAIR Digital Objects

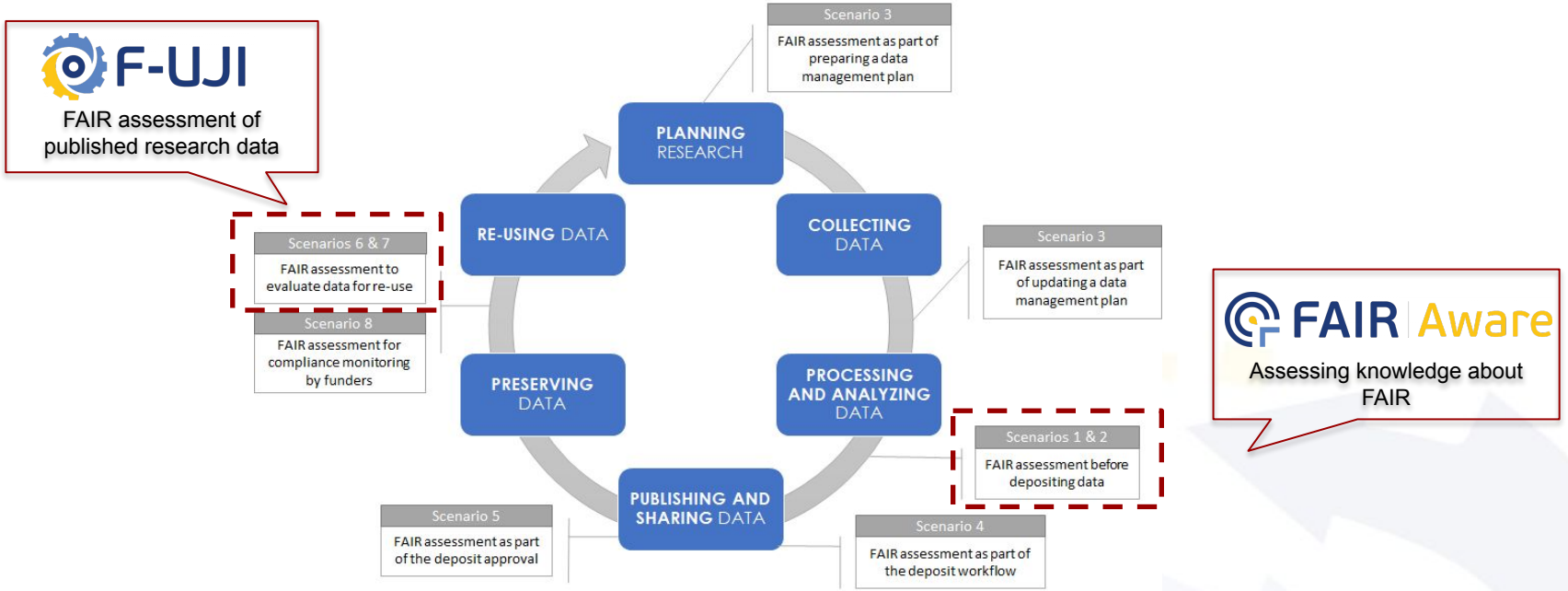
Supporting Recommendations
Rec. 25: Implement FAIR metrics to monitor uptake



European Commission Expert Group on FAIR Data. 2018. 'Turning FAIR into Reality: Final Report and Action Plan from the European Commission Expert Group on FAIR Data.' https://doi.org/10.2777/1524

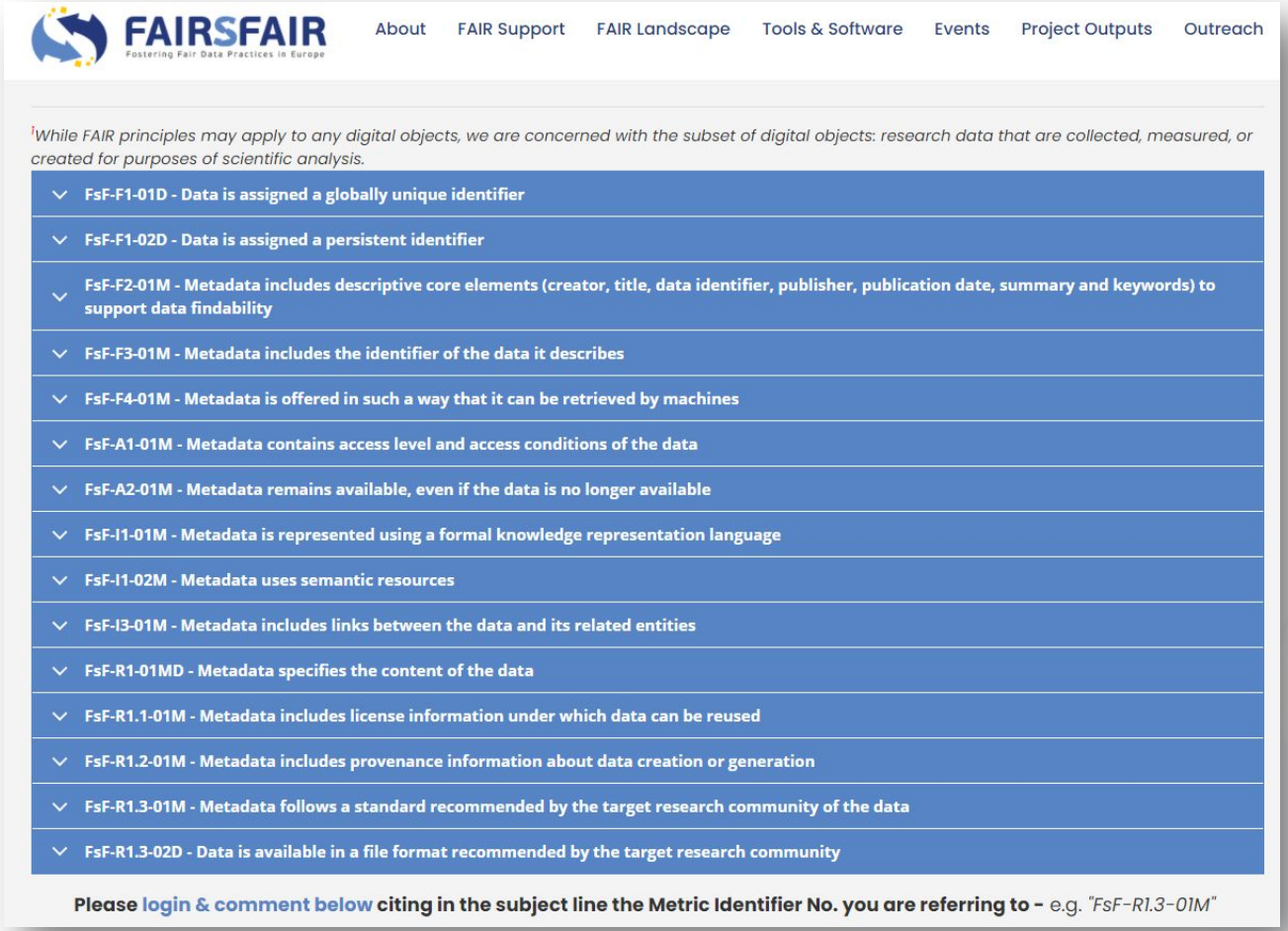
Assessment Scenarios

For more information, see D4.1 Draft Recommendations on Requirements for Fair Datasets in Certified Repositories, https://doi.org/10.5281/zenodo.3678715



Research data lifecycle; figure adapted from (Mosconi et al., 2019) and scenarios of FAIR assessment of datasets therein.

Huber, R. & Devaraju, A. (2020). F-UJI - An Automated Assessment Tool for Improving the FAIRness of Research Data. 2020-09-30

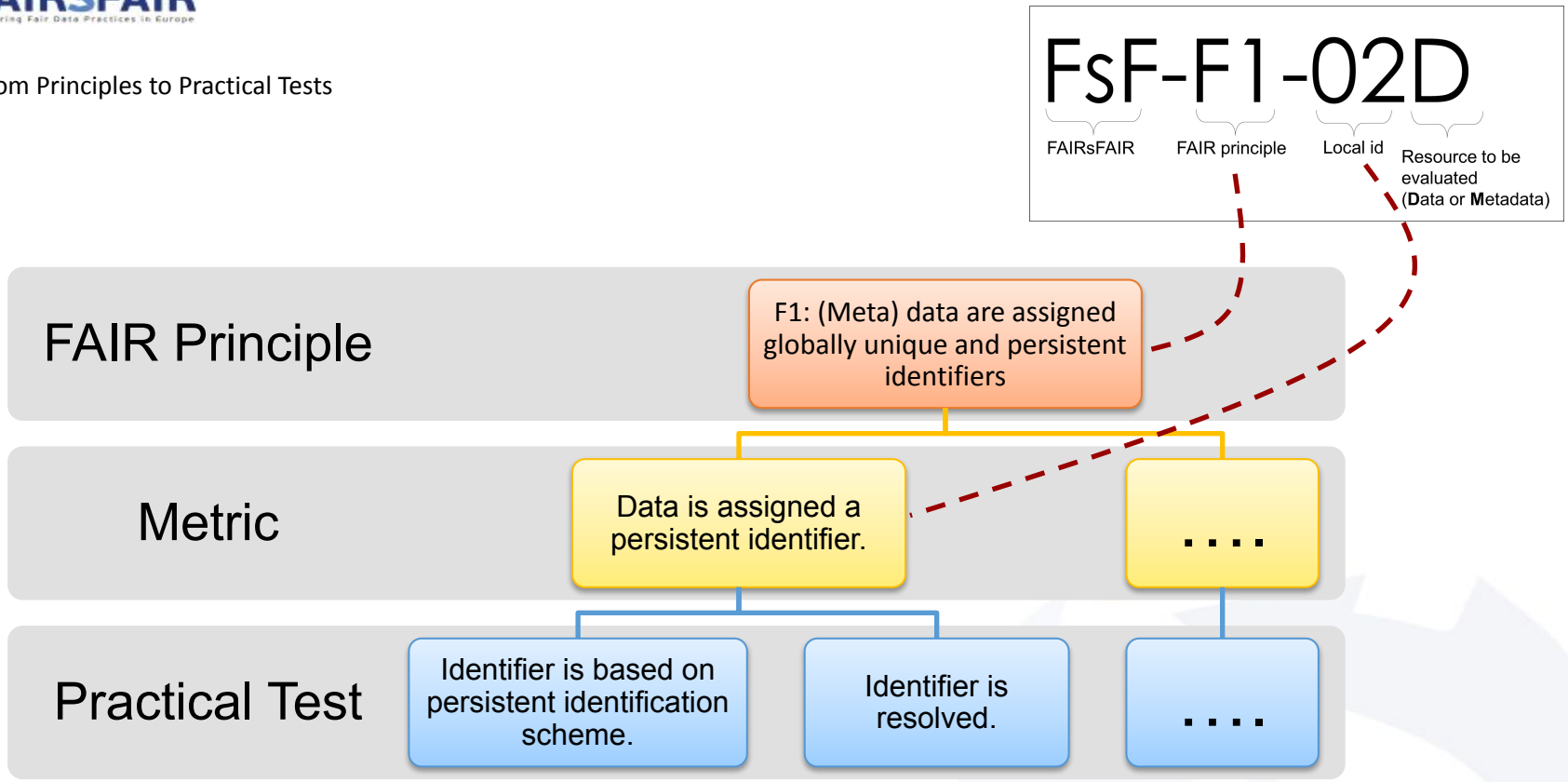


Object Assessment Metrics v0.4

We would love to hear your feedback!

https://fairsfair.eu/fairsfair-data-object-assessment-metrics-request-comments

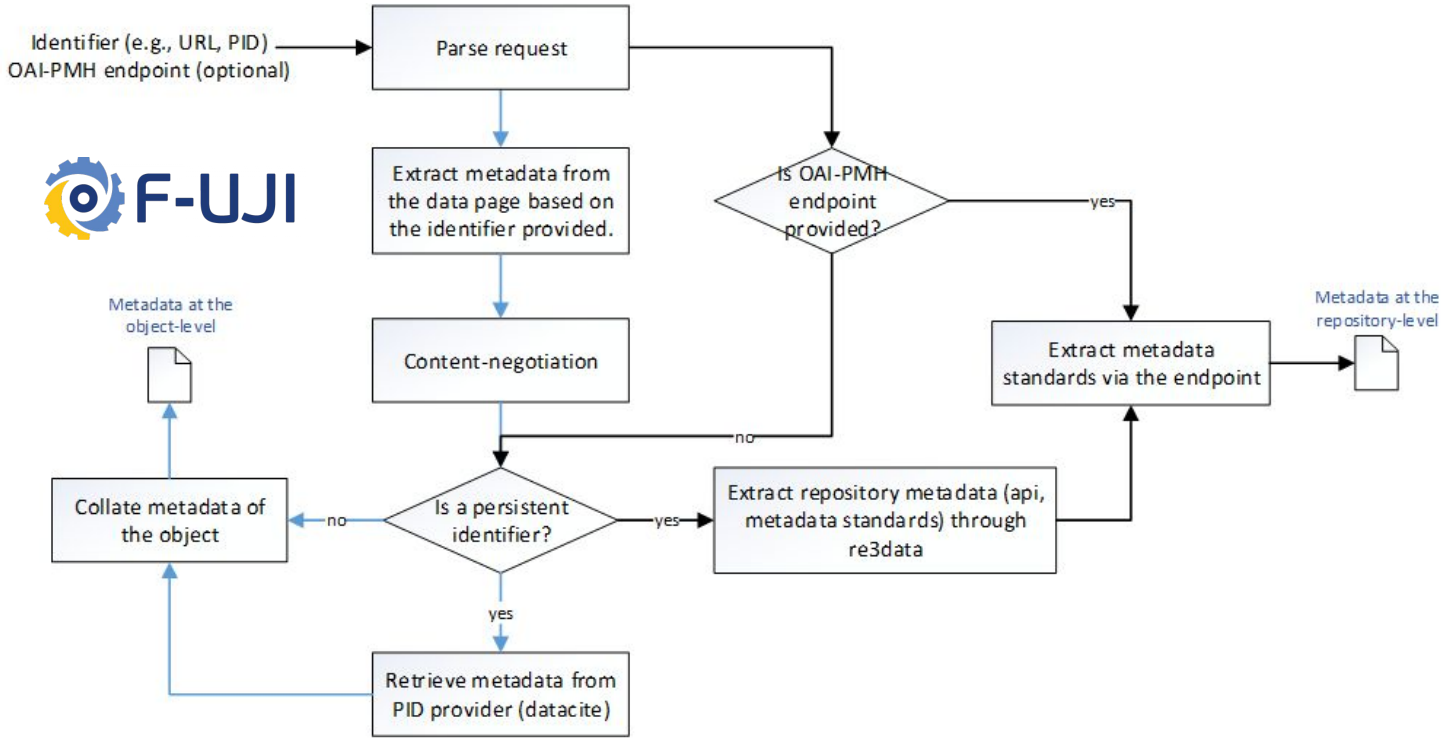
From Principles to Practical Tests



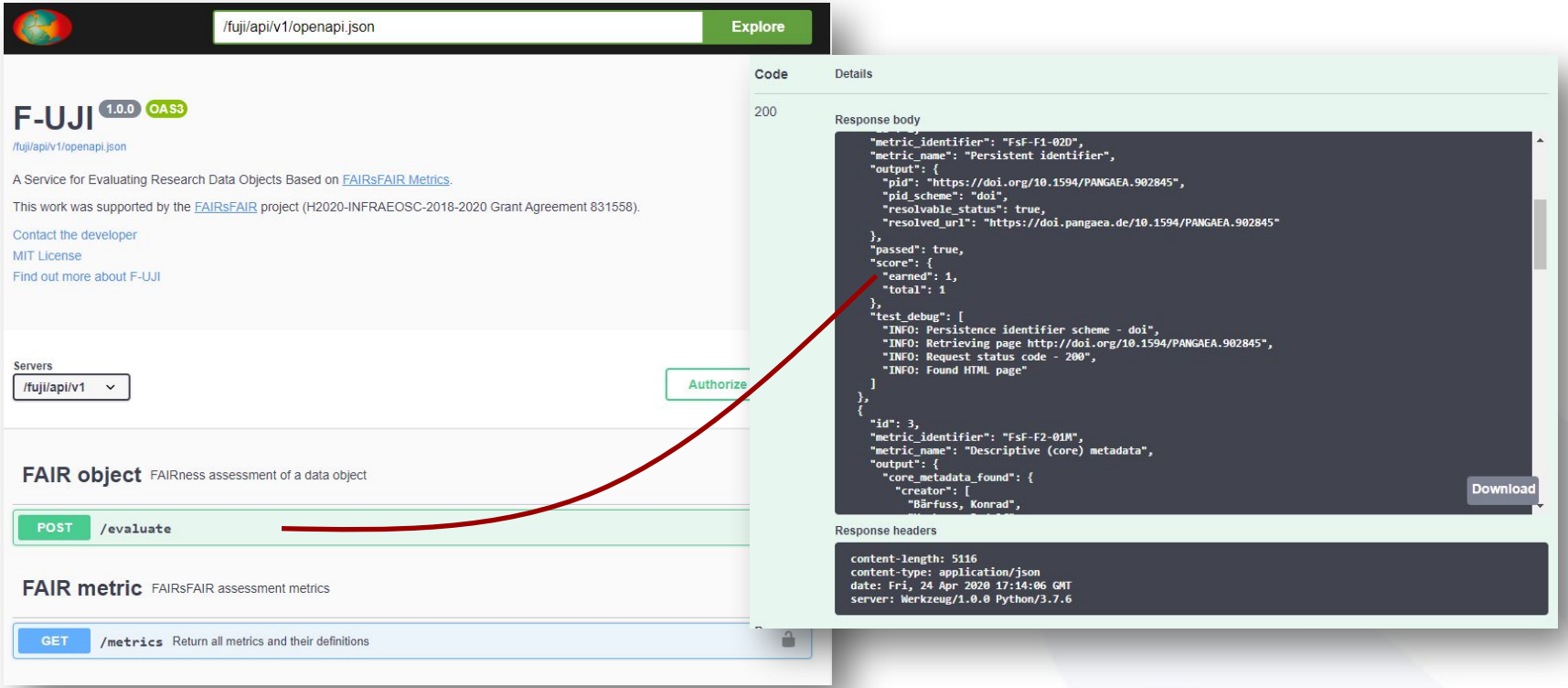
https://github.com/pangaea-data-publisher/fuji

https://www.f-uji.net

High Level Flow (Data Gathering)

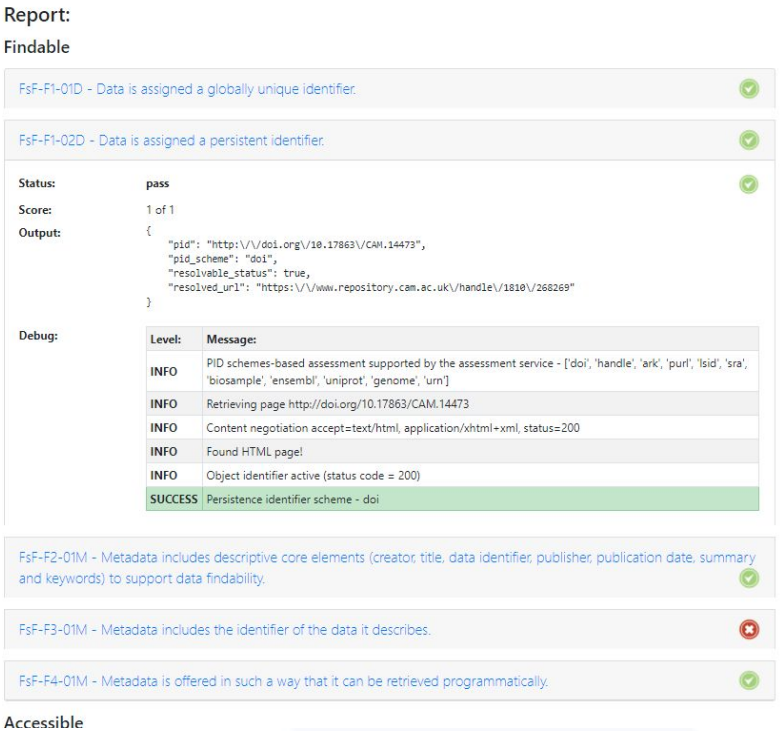


F-UJI – An Automated FAIR Data Assessment Tool



F-UJI – An Automated FAIR Data Assessment Tool

https://www.f-uji.net

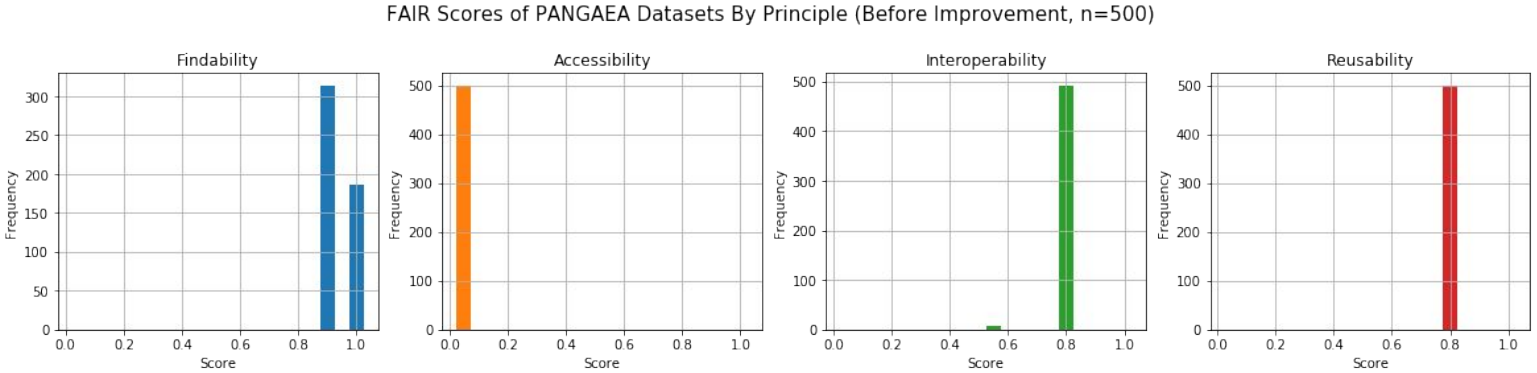


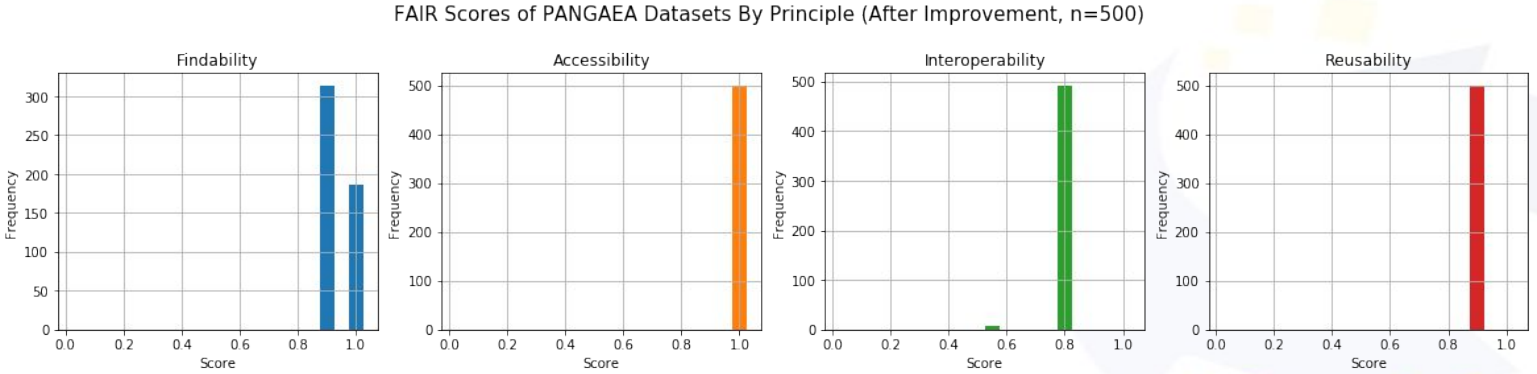
Testing & Consultation – the pilots

Repository	Certification	Subject Areas	Datasets Evaluated (as of 25.09.2020)	FAIR Data Improvement	Repository Contact
PANGAEA	CoreTrustSeal, WDS Regular Member				
Phaidra-Italy	CoreTrustSeal				
CSIRO Data Portal	CoreTrustSeal				
World Data Centre for Climate (WDCC)	CoreTrustSeal, WDS Regular Member				
DataverseNO	CoreTrustSeal				

FAIRsFAIR Object Metric	Comment	Next Step
FsF-F1-01D Data is assigned a globally unique identifier.	OK	
FsF-F1-02D Data is assigned a persistent identifier.	OK	
FsF-F2-01M Metadata includes descriptive core elements (creator, title, data identifier, publisher, publication date, summary and keywords) to support data findability.	Some datasets do not have a summary/abstract. e.g., https://doi.org/10.1594/PANGAEA.863175	Uwe: Most child datasets don't have abstract, but their parents. Abstract is optional field (datacite schema) For new datasets, abstract is recommended especially for datasets with publications. Routine (automatic from sensor) dataset don't have abstract
FsF-F3-01M Metadata includes the identifier of the data it describes.	OK	
FsF-F4-01M Metadata is offered in such a way that it can be retrieved by machines.	OK	
FsF-A1-01M Metadata contains access level and access conditions of the data.	Total score = 1, Earned = 0 NO access information is available in metadata: **Possible ways to include access level metadata are:** **Schema.org** • if public use => isAccessibleForFree || free (Note: isAccessibleForFree Supersedes free)	Action: Uwe to include access level in the metadata (Done)

Before and After

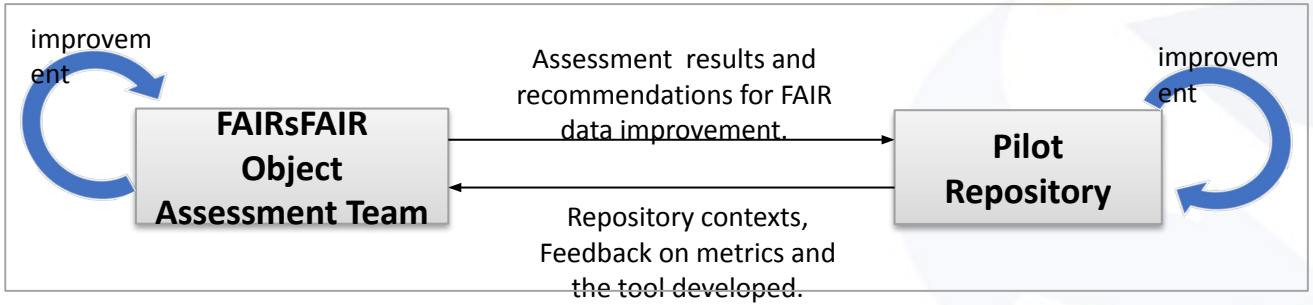




Lessons learned

- Automatised FAIR assessment of research data objects is possible
- Supporting a very large and diverse community
  - 5 pilots
  - + CESSDA, EOSC-NORDIC, DataverseNL
- Iterative mutual improvements … ongoing process

Best use formula: (F-UJI FAIR assessment + f2f FAIR consulting)



FAIRSFAIR
Fostering Fair Data Practices in Europe

Thank You

Task 4.5:
Anusuriya Devaraju, Robert Huber, Mustapha Mokrane, Jerry de Vries, Patricia Herterich, Linas Cepinkas, Vesa Akerman, Joy Davidson, Herve L'Hours.

FAIRSFAIR
Fostering Fair Data Practices in Europe

Data Archiving and Networked Services
DANS

FAIR-Aware

Let's assume you have research data almost ready for uploading to a repository: do you already know how you and the repository can work together to make the data as findable, accessible, interoperable and reusable (FAIR) as possible? By guiding you through the assessment process, the FAIR-Aware tool can help you to better understand the FAIR Principles and how making data FAIR can increase the potential value and impact of your data.

FAIR-Aware is an online tool developed by the FAIRsFAIR project. The tool is not meant to give you a score for the FAIRness of a specific dataset. You should, however, have a target dataset in mind to be able to answer the questions and complete the assessment.

The assessment starts with a few questions 'about you' followed by 10 questions about FAIR. After you answer each question additional information and guidance will be displayed. The majority of the questions will help you assess your current level of awareness about what actions are needed to make data FAIR. At the end, Your feedback will help us improve FAIR-Aware and make it as user-friendly as possible. You will need between 10 and 30 minutes to complete the assessment depending on your familiarity with the subject and issues covered.

The FAIRsFAIR Team (DANS, DCC, UniHB)

Find out more about FAIRsFAIR on the project's website. If you have any questions, drop us an e-mail.

About you

Which research domain do you work in? Domain

Which of the following describes your role? Please select all that apply.

- Researcher
- Policy maker
- Research support (e.g. data steward, curator, data manager, librarian, information technology professional)
- Funder
- Publisher
- Other

Which of the following types of organisations best describe your employer? Please select all that apply.

- Research Infrastructure/eInfrastructure (e.g. data repository, service provider, library)
- University or Research Performing Organisation
- Research Performing Organisation
- Government
- eInfrastructure (e.g. repository or scientific data provider)
- Funding Body
- Publisher
- Industry
- Other

FAIR questions

FINDABLE

Are you aware that a dataset should be assigned a globally unique and persistent identifier when deposited with a data repository? Yes / No

Are you aware that when you deposit a dataset with a repository, you will need to provide some details (known as discovery metadata) in order to make the data findable, understandable and reusable to others? Yes / No