FAIR Assessment and DataRepositóriUM:

OSTrails pilot use case

André Vieira, Pedro Príncipe, Anabela Duarte.

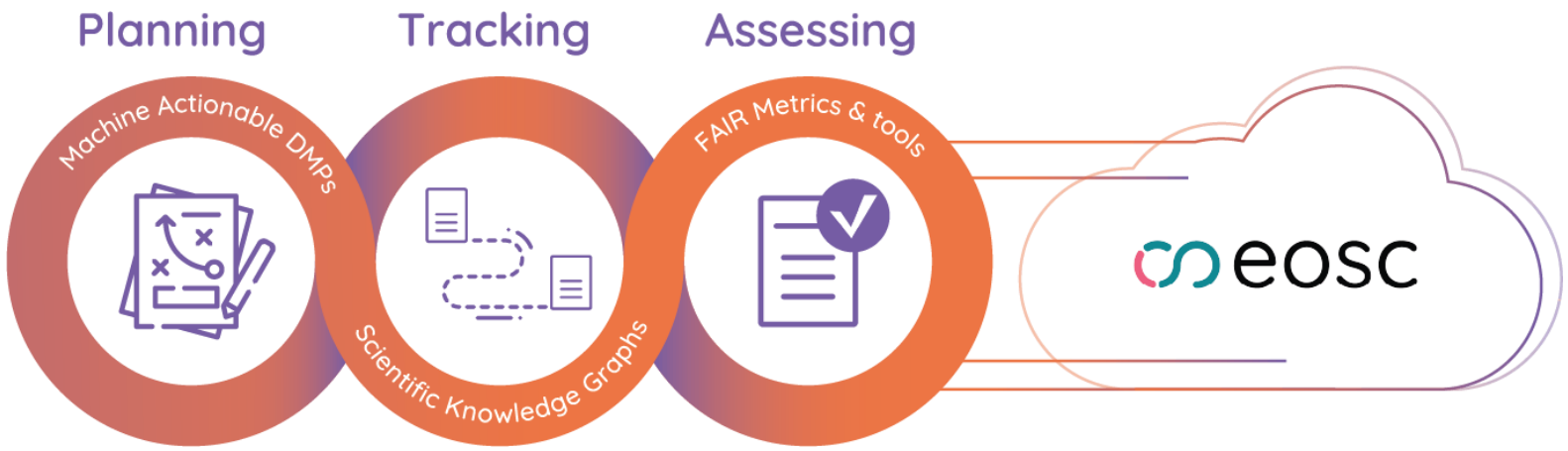
University of Minho

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Supporting eosc

Dataverse Community Meeting 2026

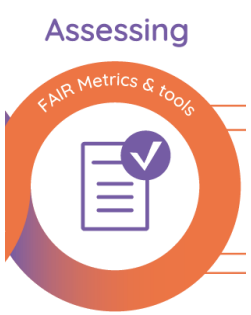
Brief project overview



ostrails

Goals:

- Transform how research is **planned**, **tracked**, and **assessed** by embedding the FAIR principles and interoperability at the core of research workflows.



OSTrails FAIR Reference Model

Provides a unified conceptual and structural foundation for evaluating how well digital objects comply with the FAIR Data Principles.

Scenario

Systematic comparison of existing FAIR assessment tools revealed **significant inconsistencies** in how FAIR principles were interpreted, implemented, and reported.

Solution

Offer the ability to **define "FAIR" in the most appropriate way for the community needs**. Ensure that this definition is transparent so everyone knows what is expected of them.

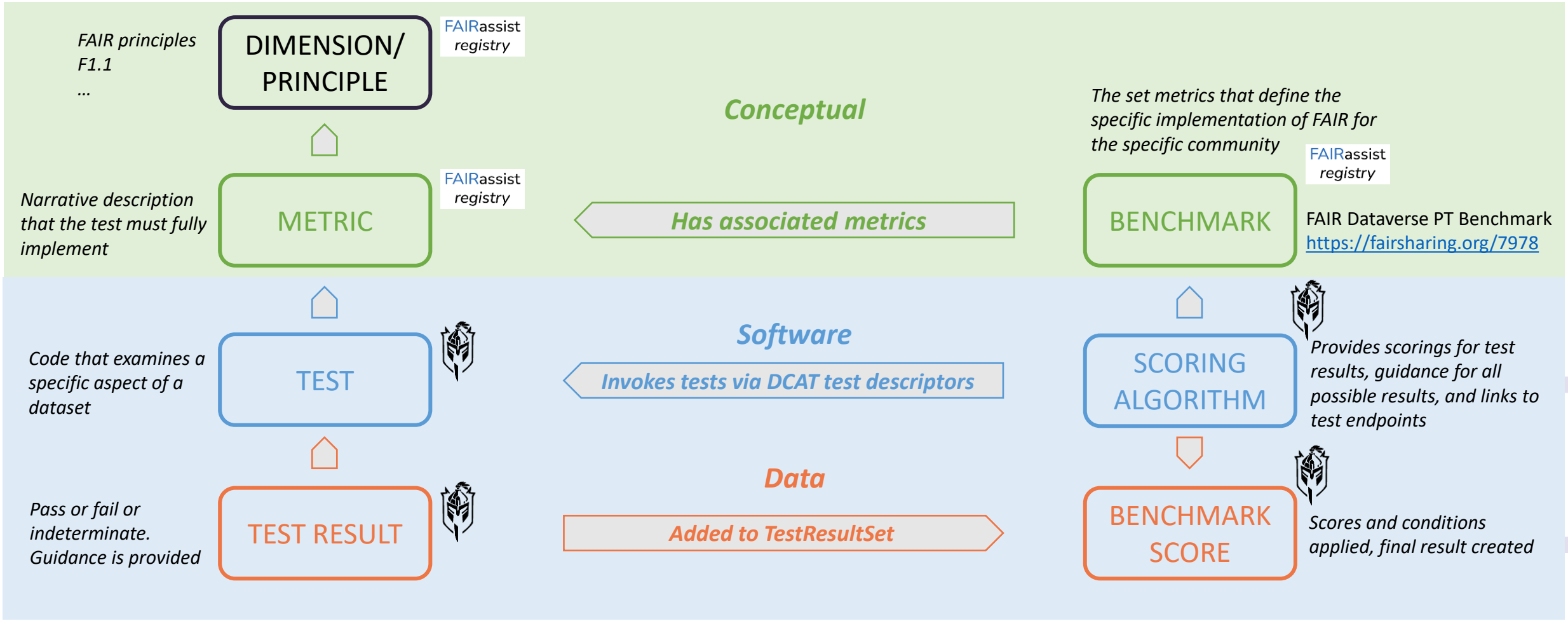
OSTrails FAIR Reference Model

Solution

- **It enables harmonised and transparent evaluations, reducing discrepancies that arise when different tools assess the same object** using divergent interpretations of FAIR principles.
- **Allow repositories to be evaluated reflecting the needs of research communities, infrastructures, or funders**.

Overall, this Model provides the conceptual and operational framework needed to deliver consistent, comparable, and scalable FAIR assessments for datasets deposited in repositories.

The Assessment Components



BENCHMARK

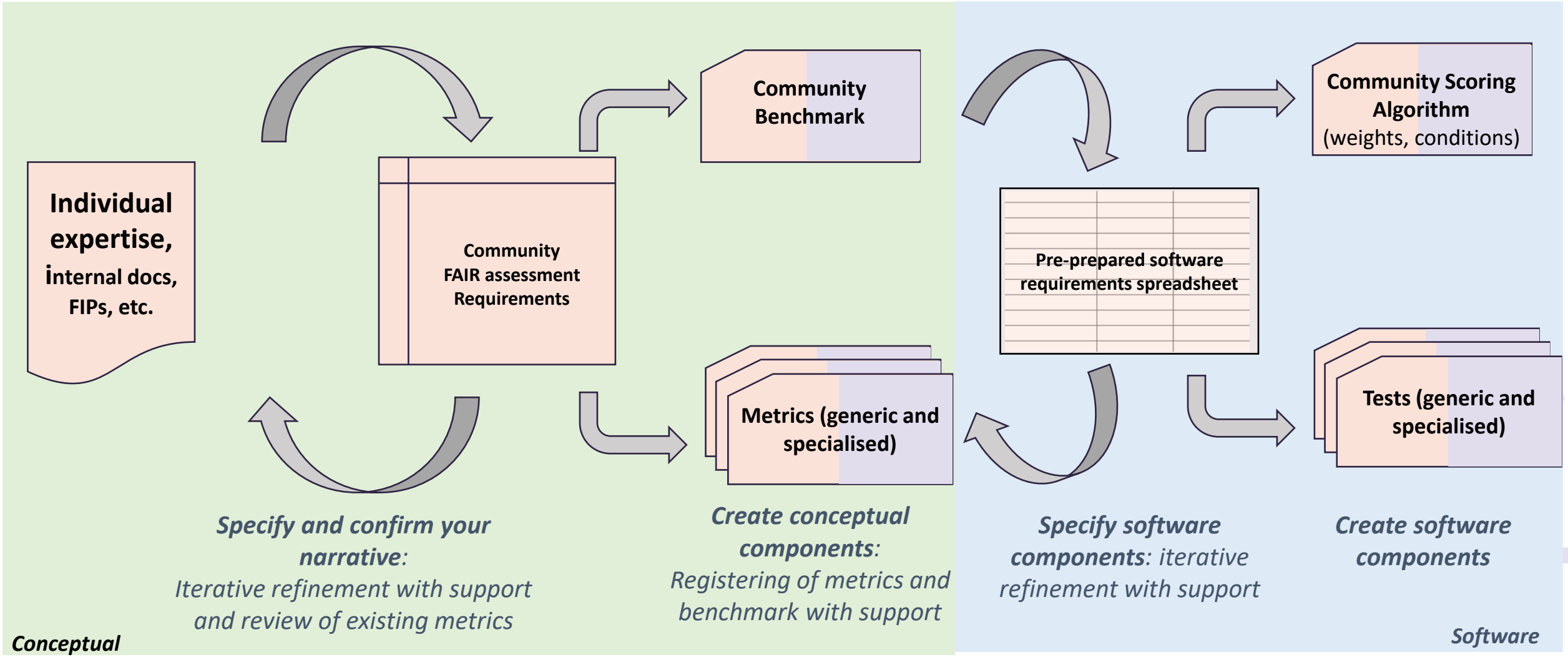
Community-specific groupings of metrics with a narrative describing how FAIR is defined.

- Communities can choose the granularity of their benchmarks with regards to subject area and digital object type.
- Benchmarks may be agnostic of object type or subject area, or may be scoped as tightly as required by the benchmark authors.
- By capturing narrative requirements in a standardised format, the framework clarifies how FAIR claims are defined, measured, and evaluated.

Building an Assessment Framework: FAIR Benchmark

Created by Assess-IF Team

Created by Community



FAIR Dataverse Portugal Benchmark

- FAIR metrics **adapted to the needs of national and institutional research infrastructures, specifically those using the Dataverse software.**
- Based on an interpretation of the FAIR principles **according to the interests and uses of researchers, institutions and funders from Portugal**.
- Created by the OSTrails Portuguese Pilot:
  - University of Minho
  - Foundation for Science and Technology

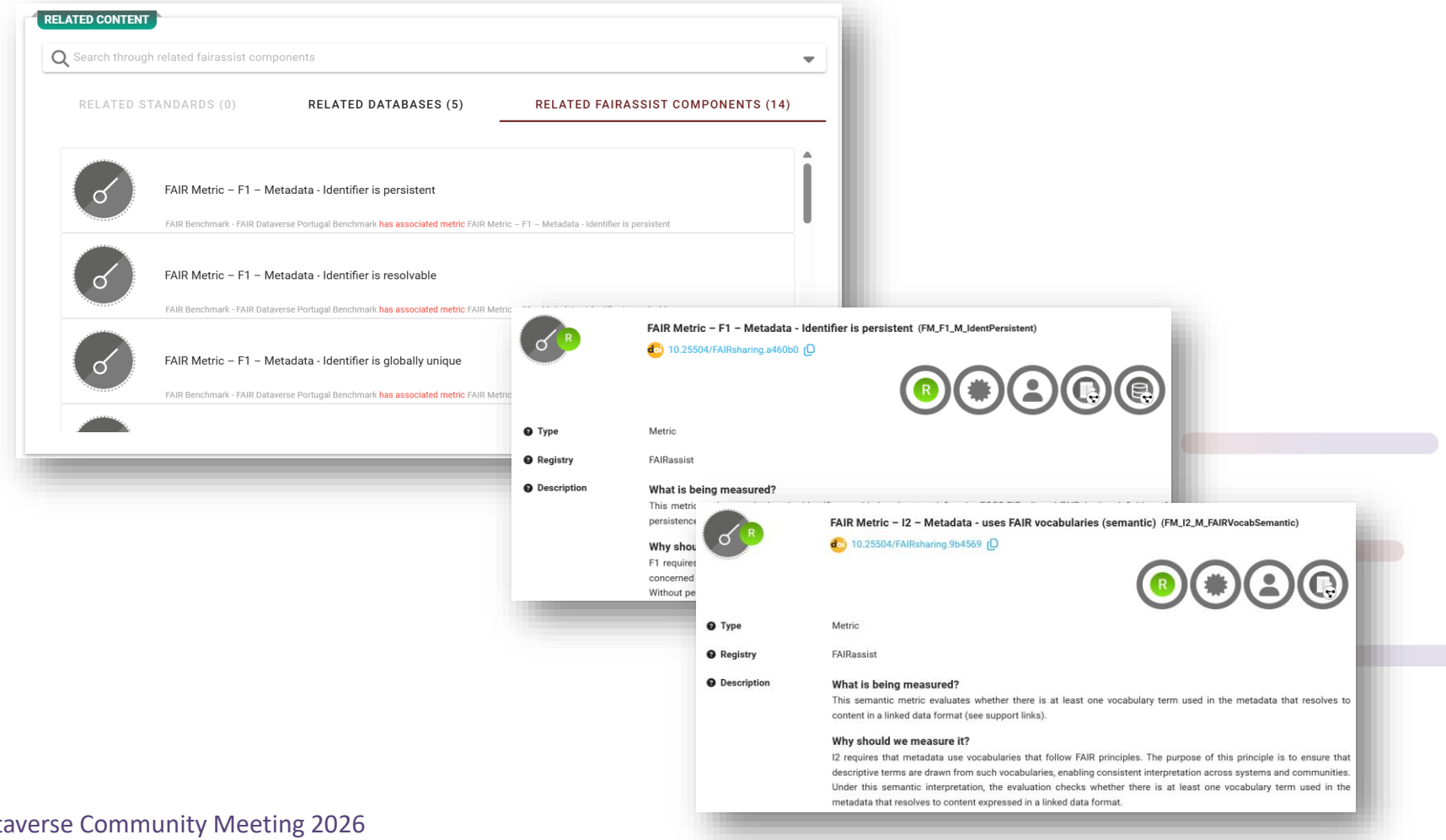


https://fairsharing.org/7978

FAIR Dataverse Portugal Benchmark



FAIR Benchmark has associated FAIR Metrics



FAIR Assessment IN PRACTICE

FAIR Champion
https://tools.ostrails.eu/champion

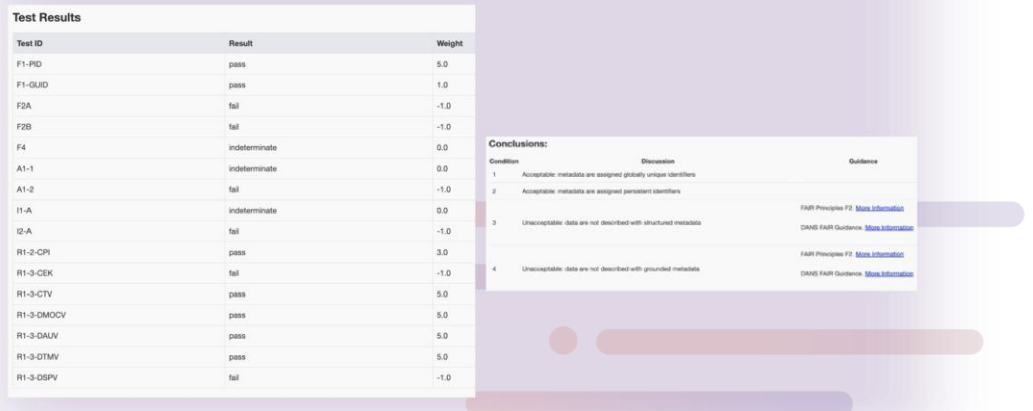
Select the Benchmark Quality Assessment Algorithm

FAIR Dataverse Portugal Benchmark

Identify the Dataset to be assessed

Run Benchmark Quality Assessment

Check the Assessment Results



- **Note**: Work in progress to finalise the Benchmark, register the Metrics, write the Scoring Algorithm and Tests.
  → Planned to be concluded in June/July

Conclusions

The FAIR Reference Model provides a structured and transparent framework to enhance dataset quality.

Community-developed reference models support the evaluation and improvement of dataset FAIRness.

DataRepositóriUM and Portuguese Dataverse generic repositories can benefit of this FAIR Benchmark to assess datasets according to their specific needs.

Thank you!

Contact the UMinho team:

- https://openscience.usdb.uminho.pt

Follow the OSTrails novelties:

- https://ostrails.eu/newsletters

Contact the OSTrails teams:

- info-ostrails@openaire.eu

Documentation:

- https://docs.ostrails.eu/en/latest/commons/fair/fair-commons.html
- https://ostrails.eu/fair-if