



WORKSHOP FAIRification NORDIC / BALTIC
22 April 2020

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- 🌐 Founded early 2018
- 🌐 NON-PROFIT, NEUTRAL, FOUNDATION under DUTCH LAW
- 🌐 LEGAL ENTITY for GO FAIR
- 🌐 PARTICIPATION in PROJECTS & PILOTS
- 🌐 DEFINE / DESIGN CERTIFICATION PROGRAM for Ministry of Economic Affairs

PARTICIPATION in PROJECTS & Pilots

- 🌐 EOSC - Set up of EOSC Secretariat – Coordination
- 🌐 EOSC - Nordic – Evaluation of (meta)datasets
- 🌐 Min. Economic Affairs - Develop a Certification plan
- 🌐 Pilot project [VODAN](#) (Virus Outbreak Data Network)

FAIR PRINCIPLES AND MATURITY INDICATORS

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 it describes;
- F4. (meta)data are registered or **indexed** in a searchable resource;

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;

Accessible:

- A1. (meta)data are retrievable by their identifier using a standardized communications protocol;
 - A1.1 the protocol is **open, free, and universally implementable**;
 - A1.2. the protocol allows for **an authentication and authorization procedure**, where necessary;
- A2. metadata are accessible, **even when the data are no longer available**;

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**;

FROM FAIR PRINCIPLES to a MATURITY SCORE



FAIR PRINCIPLES



FAIR MATURITY INDICATORS



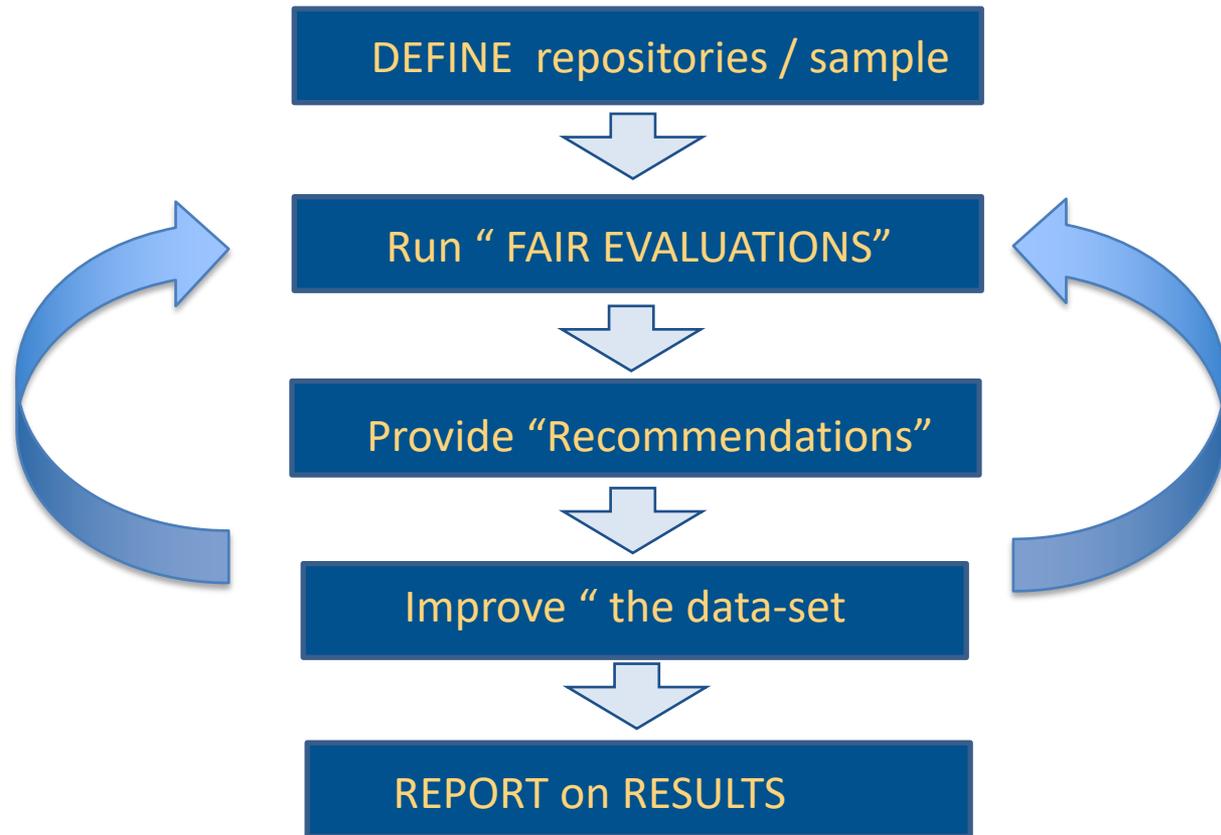
Translated to an EVALUATOR



SCORE for F,A,I and R

Using
MACHINE-ACTIONABLE
META DATA

EOSC NORDIC - MAKE REPOSITORIES FAIR



GOAL:
MONITOR
the
EVOLUTION

FAIR RECOMMENDATION DOCUMENT

**N.B. TEST IS NOT A QUALIFICATION OF THE REPOSITORY ITSELF
TEST IS USED TO MONITOR EVOLUTION OF FAIR OVER TIME**

- 🌐 TEST NUMBER : 1 – 22
- 🌐 AGAINST PRINCIPLE : F1 – R 1.1 *
- 🌐 DESCRIPTION OF THE TEST
- 🌐 RECOMMENDATION WHEN FAILED
- 🌐 MORE DETAILED INFO WHEN FAILED



- 🌐 * There is no test (yet) for R 1.2. and R 1.3.

TEST 1

UNIQUE
IDENTIFIER
(METADATA)

F-1

TEST DESCRIPTION

Test if the metadata resource uses unique identifier(s) (Test for the existence of URLs pointing to DOIs or FAIRSharing)

RECOMMENDATION

Provide the metadata using Unique Identifier(s) – such as DOIs or FAIRSharing

DETAILED INFO ON TEST FAILURE

For a digital object (PID, metadata and data) the assumption is that the object is identified using a Globally Unique Identifier (GUID). The GUID should resolve to a 'landing page' that contains two elements; metadata and data, each with its own identifier.

TEST 2

IDENTIFIER
PERSISTENCY
(METADATA)

F-1

TEST DESCRIPTION

Test for the existence of a persistence policy
(Test for the persistence schemas at
FAIRSharing or other)

RECOMMENDATION

Locate or create a link to an explicit persistence
policy, ideally in machine-actionable format

DETAILED INFO ON TEST FAILURE

This indicator tests if the unique identifier of the metadata resource is likely to be persistent. Known schema are registered in FAIRSharing (https://fairsharing.org/standards/?q=&selected_facets=type_exact:identifier%20schema). For URLs that don't follow a schema in FAIRSharing we test known URL persistence schemas (purl, oclc, fdlp, purlz, w3id, ark).

TEST 9

USES OPEN FREE
PROTOCOL FOR
DATA RETRIEVAL

A-1.1

TEST DESCRIPTION

Test if data may be retrieved by an open and free protocol by testing data GUID for its resolution protocol

RECOMMENDATION

Assure your data resources can be resolved (f.i. InChi keys, DOIs , Handles and URLs)

DETAILED INFO ON TEST FAILURE

TEST 13

METADATA
PERSISTENCE

A-2

TEST DESCRIPTION

Test if the metadata contains an explicitly identified persistence policy.

RECOMMENDATION

Locate or create a link to an explicit persistence policy, ideally in machine-actionable format.

DETAILED INFO ON TEST FAILURE

Currently, to pass this test it is required to have the following predicate set in the metadata to declare the relevant persistence policy; <http://www.w3.org/2000/10/swap/pim/doc#persistencePolicy>
(NOTE: “swap” is no longer maintained and this is likely an outdated vocabulary. Rarely used predicate!). Contacted Datacite regarding possibility of establishing a persistence policy declaration for DOIs.)

TEST 22

METADATA INCLUDES
LICENSE (WEAK)

R1.1

TEST DESCRIPTION

Test if metadata contains an explicit pointer to the license

RECOMMENDATION

Assure an explicit pointer to the license or use existing schemas that include license terms.

DETAILED INFO ON TEST FAILURE

Maturity Indicator to test if the metadata contains an explicit pointer to the license. **This 'weak' test will use a case-insensitive regular expression, and scan both key/value style metadata, as well as linked data metadata.** So if your metadata is e.g. JSON, and has a key 'license', that has a resource as its value, you pass the weak test. Tests: xhtml, dvia, dcterms, cc, data.gov.au, and Schema license predicates in linked data, and validates the value of those properties. NOTE THAT THE VALUE OF THAT PROPERTY MUST BE A Resource (URL). Strings are not accepted.

THANK YOU

For more info, contact :

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BACK UP SLIDES

CERTIFICATION : A PROCESS rather than a PROJECT

DEFINE / DESIGN a CERTIFICATION PROGRAM for Min. Economic Affairs

- 🌐 Requirements for data-visiting and data-sharing.
- 🌐 Norm / Standard for datasets and tools
- 🌐 Norm / Standard for trained individuals and service suppliers
- 🌐 Define a gradual proces.
- 🌐 Ensure support from the community.
- 🌐 Build bridges between “academic world” and industry.

5 Interesting trends driving convergence

- Large “DATA-STANDARD-ORGANISATIONS”, like RDA, CODATA and WDS are stimulating **convergence** in order to drive interoperability.
- OPEN SCIENCE CLOUDS in EU, US, AFRICA, FAR EAST and BRAZIL promote “convergence” by discussing **worldwide interoperability**.
- FAIR Digital Objects / FAIR Digital Framework is being discussed between EU, US and Far East experts in order to come to a **worldwide accepted guidance** for the “FAIRness” of a Digital Object.
- Research FUNDERS from EU and US are **actively cooperating** in order to agree on FAIR standards and policies when financing research in the future
- Data-Steward Competence Centers are **emerging** to assist the researcher with his/her data-management (in science, universities, ministries, private sector, research centers)