FAIR assessment framework for data services
online workshop

20 May 2021

Housekeeping
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https://docs.google.com/document/d/1jnoYIj0C43H0QxWJcC_AZc28-Ja1j4Sz-TrLB3zyRiY/edit?usp=sharing

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http://bit.ly/fsfAFservices

- Please be aware that the session is being recorded and will be made publicly available
- Please add yourself to the list of participants

FAIRsFAIR - WP2 - Task 2.4

Sara Ramezani, SURF (task lead)

Patricia Herterich, DCC

Morane Gruenpeter, INRIA

Rob Hooft, DTL

Tero Aalto, CSC

Agenda

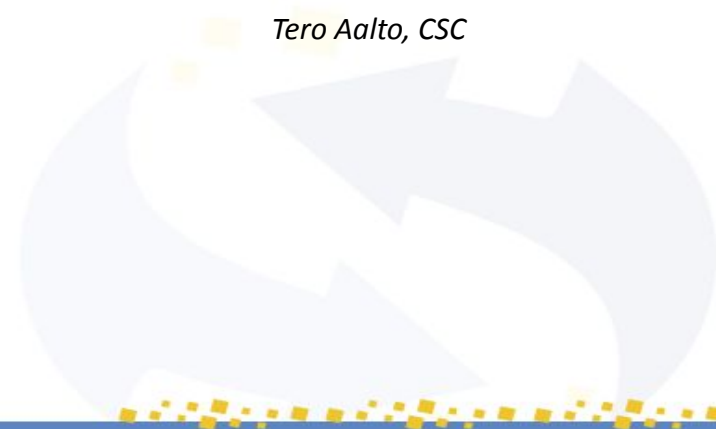*Sara Ramezani, SURF (task lead)*

Patricia Herterich, DCC

Morane Gruenpeter, INRIA

Rob Hooft, DTL

Tero Aalto, CSC

- 15:00 – 15:10 - Welcome,
- 15:10 – 15:50 - Focus on each technical aspects
  - FAIR enablement
  - Quality of Service
  - Open & Connected
- **16:00 – 16:05 - Break**
- 16:05 – 16:45 - Focus on each social aspect
  - User-centricity
  - Transparency
  - Longevity
  - Ethical & Legal
- 16:45 – 17:00 - Summary of feedback and next steps

Goals for today

- Review and discuss the proposed framework in depth
- Identify gaps and opportunities for improvement
- Bonus: start prioritization

- Optimize format of the framework to aid adoption

FAIRsFAIR in a nutshell

Call: H2020-INFRAEOSC-5c

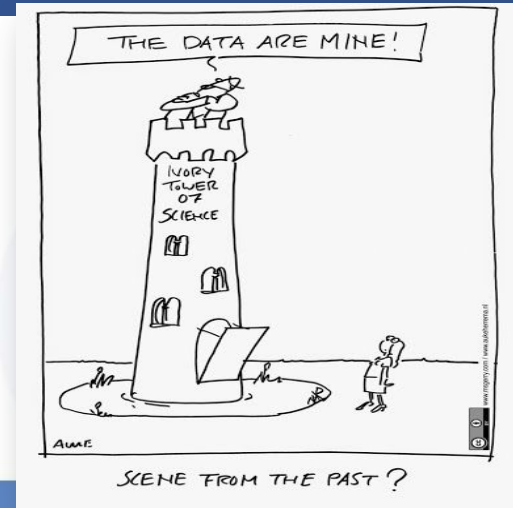Budget: 10 million euro

Duration: 36 months
Starting date: 2019-03-01

6 core partners/WP leads

Our objective

To supply practical solutions for the use of the FAIR data principles throughout the research data life cycle. Emphasis is on fostering FAIR data culture and the uptake of good practices in making data FAIR.

We need FAIR services

Final Report and Action Plan from the European Commission Expert Group on FAIR Data

TURNING FAIR INTO REALITY

2018

Priority Recommendation

Rec. 13: "Develop metrics to certify FAIR services":
More work is needed to extend the FAIR data principles for application to a wide range of data services, including registries, Data Management Planning tools, metadata standards and vocabulary bodies, identifier providers, software libraries and other cloud services…

(Also recently underlined by EOSC FAIR WG)

Objective for T2.4 "FAIR software & services"

To deliver an [assessment framework](#) for data services that will help service owners to incrementally improve their services

→ *stimulating an optimal interplay between digital objects and services*

→ *help realize the full potential of a truly FAIR ecosystem*

M2.7: Case studies and methodology for 'FAIR enablement'

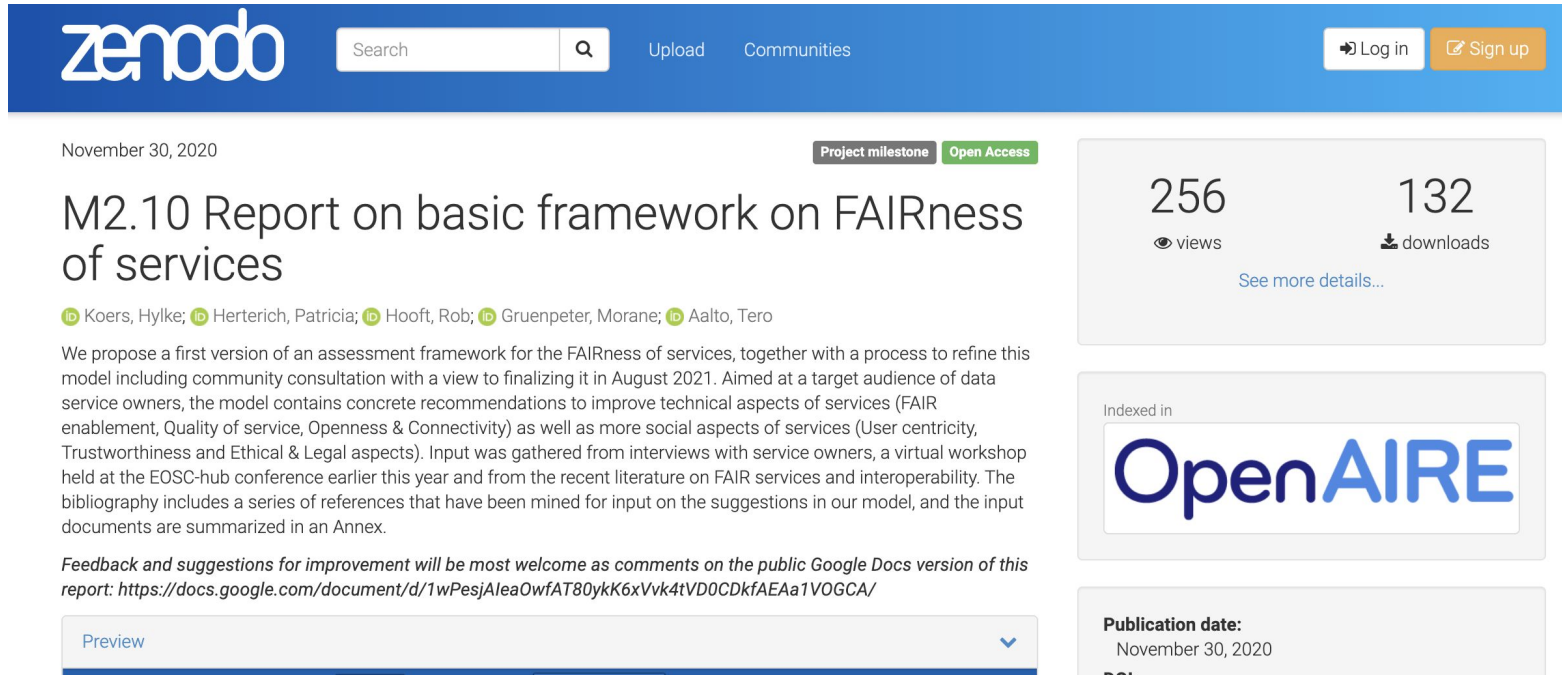## 4.2. Case Study 1: B2FIND

Service Summary

B2FIND[21] is a metadata aggregator. The service harvests metadata from different community repositories and harmonises them such that users and services can search through the combined metadata. B2 FIND offers a rich faceted graphical search interface and a HTTP REST API that has been implemented in python for EUDAT's B2FIND Training[22]

URL: http://b2find.eudat.eu/   **EOSC:** https://marketplace.eosc-portal.eu/services/b2find

Users

The service targets two types of user groups:
- Scientific communities that can provide their metadata and integrate via the B2FIND service with other metadata
- Scientists who can employ the service to search for interesting research data across different communities simultaneously.

Purpose

B2FIND is a metadata aggregator. It gathers metadata from communities and repositories and integrates the different types of metadata. It provides a graphical user interface and an API to present the metadata and allows faceted searches across the metadata corpus.

Adoption

By now B2FIND hosts 824566 metadata entries harvested from 22 communities. We were unable to establish from the documentation how many users use B2FIND.

Services

- Metadata harvesting and harmonisation to communities with a tool to search across the metadata for scientists.
- The relevant metadata of a DO is shown and a link to the metadata provenance is provided.

Target Digital Objects

- Metadata entries

Examples

- B2FIND entry (KONTROL 1984[23])
- OAI-PMH dataset's metadata[24]

Documentation

EUDAT provides guidelines on how to use the B2FIND services[25] as well as detailed guidelines for harvesting and mapping metadata[26]

FAIR enablement mapping (see Annex C for details)

F1	F2	F3	F4	A1	A1.1	A1.2	A2	I1	I2	I3	R1	R1.1	R1.2	R1.3

FAIR enablement mapping:
Enable / Respect / Reduce
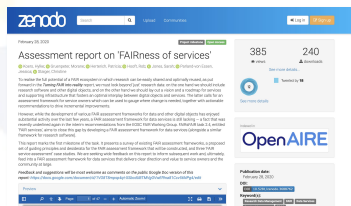
"M2.7 Assessment report on 'FAIRness of services'", available at: https://doi.org/10.5281/zenodo.3688762

M2.10: Basic framework for FAIR service assessment

M2.10 Report on basic framework on FAIRness of services", available at:
https://doi.org/10.5281/zenodo.4292599

Proposing: A basic framework for FAIR service assessment

Technically-oriented
- FAIR enablement
- Quality of service
- Open & Connected

Socially-oriented
- User centricity
- Transparency
- Longevity
- Ethical & Legal

"M2.10 Report on basic framework on FAIRness of services", available at:
https://doi.org/10.5281/zenodo.4292599
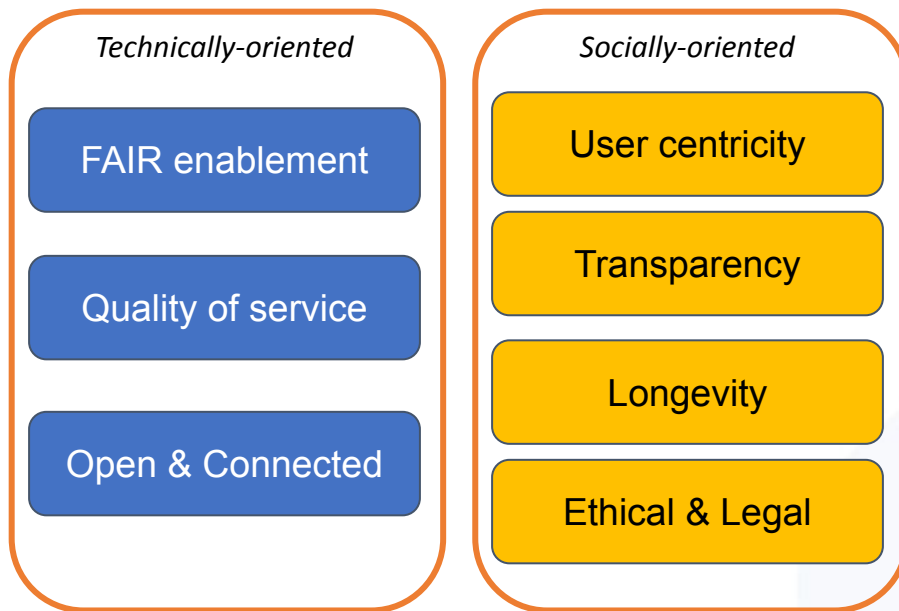
Each aspect has a high-level objective with a series of recommendations

High-level objective

Actionable, detailed recommendations

FAIR enablement

Objective:

The service enables FAIR data by elevating the FAIRness of digital objects and/or supporting the FAIRification process. FAIR enablement is actively driven through the implementation of community-supported standards and interoperability frameworks.

Recommendations:

- Perform a self-assessment on how the function(s) of the service *enable, respect* or *reduce* each of the FAIR principles for the data that it operates on.[12] Make the results of the self-assessment publicly available, together with an outlook on the desired state for the service (including a cost/benefit analysis).[13]

- Use automated tests that show how the service increments FAIRness of digital objects in a verifiable, measurable, repeatable and scalable way. Root such tests in community-supported methodologies that measure the FAIRness of digital objects in an objective way.

- In consultation with the target community (or communities), identify which metadata

Workshop activity

Validating the framework

We'll answer these questions by writing in parallel in the document, then discuss our responses.
Please comment on others' answers by using the Google Doc commenting function.

For each aspect we will review its objective and each recommendation by answering the following questions in the table:

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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FAIR enablement

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FAIR Enablement

Objective:

The service enables FAIR data by elevating the FAIRness of digital objects and/or supporting the FAIRification process. FAIR enablement is actively driven through the implementation of community-supported standards and interoperability frameworks.

FAIR enablement:
Enable / Respect / Reduce
Enable: Augment / Facilitate

Technically-oriented

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Quality of Service

Objective:

The service is delivered in a reliable, secure, high-quality way, consistent with its specifications.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
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- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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Open & Connected

Objective:

The service is operated in a low-barrier and inclusive way; seeking integrations and connections with other services; and championing principles of openness consistent with Open Science and Open Research.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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Break (until 16:05 CEST)

Validating the framework

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User Centricity

Objective:

The service is managed such that it serves the (possibly evolving) goals of the user community, and maximises usability while minimizing burden.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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Transparency

Objective:

The service provider communicates with its user community in a transparent manner.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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Longevity

Objective:

The service provider designs the service with a timeframe for the maintenance and sustainability of the service in mind and implements measures accordingly, considering the researchers' necessity for reproducible research.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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Ethical & Legal

Objective:

The service complies with all applicable legal and ethical guidelines, in a transparent and auditable way.

- Is this objective/recommendation **relevant** for services in a FAIR ecosystem?
- Should this recommendation be **prioritized**?
  - Essential (high) / highly recommended (medium) / desired (low) / redundant (not needed) ?
- Do you know **services examples** that already answer this specific recommendation? Please add a link.

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About the assessment framework…

How can we make the assessment framework format of most value to you?

Please give your input here:
https://docs.google.com/document/d/1jnoYIj0C43H0QxWJcC_AZc28-Ja1j4Sz-TrLB3zyRiY/edit?usp=sharing
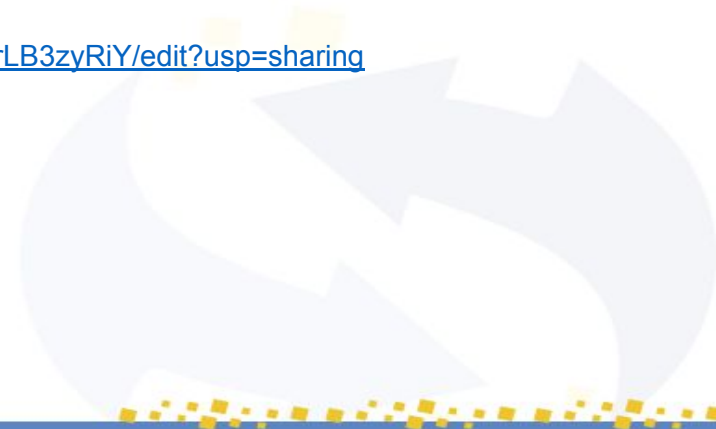
Next Steps

Next steps

Dec – Jan 2020	Public consultation on assessment framework as proposed in this work – including webinar to kick off the public consultation (perhaps with RDA FAIR maturity WG)
Feb 2021	Workshop with different stakeholder groups to validate completeness
March 2021	Dissemination of workshop findings, including next iteration of the assessment framework
April 2021	Second workshop for service owners to validate utility and actionability
May 2021	Draw up final framework for assessing FAIR services
June 2021	"Last chance" external expert review
June 2021	Internal review within FAIRsFAIR
July – Aug 2021	Finalization and publication of framework for assessing FAIR services (deliverable D2.7)

Finally, thanks to "team 2.4" !

- Sara Ramezani (SURF; task lead)
- Morane Gruenpeter (INRIA)
- Patricia Herterich (DCC)
- Rob Hooft (DTL)
- Tero Alto (CSC)

And earlier contributions from:
- Hylke Koers (SURF; former task lead)
- Christine Staiger (DTL)
- Roberto Di Cosmo (INRIA)
- Sarah Jones (DCC)
- Jessica Parland-von Essen (CSC; work package lead)
- Jonas Tana (CSC)
- Hanna Koivula (CSC)